

ANALYTICAL REPORT

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Tel: (330)497-9396

Laboratory Job ID: 240-134803-1
Client Project/Site: Ford LTP On-Site

For:
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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: 240-134803-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.
X	Surrogate recovery exceeds control limits

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

Case Narrative

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

Job ID: 240-134803-1

Job ID: 240-134803-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP On-Site

Report Number: 240-134803-1

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.

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

RECEIPT

The samples were received on 8/12/2020 9:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TRIP BLANK (240-134803-1), LMW-20-23_081020 (240-134803-2), LMW-20-20_081020 (240-134803-3), LMW-20-18_081020 (240-134803-4), LMW-20-26_081020 (240-134803-5) and LMW-20-27_081020 (240-134803-6) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/20/2020.

Samples LMW-20-18_081020 (240-134803-4)[1000X], LMW-20-26_081020 (240-134803-5)[5X] and LMW-20-27_081020 (240-134803-6)[8X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

1,2-Dichloroethane-d4 (Surr) failed the surrogate recovery criteria low for LMW-20-18_081020MS (240-134803-4MS).

1,2-Dichloroethane-d4 (Surr) failed the surrogate recovery criteria low for LMW-20-18_081020MSD (240-134803-4MSD).

Naphthalene failed the recovery criteria low for the MS/MSD of sample LMW-20-18_081020MS/MSD (240-134803-4) in batch 240-448014.

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Samples LMW-20-23_081020 (240-134803-2), LMW-20-20_081020 (240-134803-3), LMW-20-18_081020 (240-134803-4),

Case Narrative

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

Job ID: 240-134803-1

Job ID: 240-134803-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

LMW-20-26_081020 (240-134803-5) and LMW-20-27_081020 (240-134803-6) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 08/19/2020 and 08/20/2020.

Sample LMW-20-18_081020 (240-134803-4)[10X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

No additional 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: 240-134803-1

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: 240-134803-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-134803-1	TRIP BLANK	Water	08/10/20 00:00	08/12/20 09:30	
240-134803-2	LMW-20-23_081020	Water	08/10/20 09:30	08/12/20 09:30	
240-134803-3	LMW-20-20_081020	Water	08/10/20 10:55	08/12/20 09:30	
240-134803-4	LMW-20-18_081020	Water	08/10/20 11:58	08/12/20 09:30	
240-134803-5	LMW-20-26_081020	Water	08/10/20 13:14	08/12/20 09:30	
240-134803-6	LMW-20-27_081020	Water	08/10/20 14:06	08/12/20 09:30	

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Detection Summary

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

Job ID: 240-134803-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-134803-1

No Detections.

Client Sample ID: LMW-20-23_081020

Lab Sample ID: 240-134803-2

No Detections.

Client Sample ID: LMW-20-20_081020

Lab Sample ID: 240-134803-3

No Detections.

Client Sample ID: LMW-20-18_081020

Lab Sample ID: 240-134803-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	11	J	20	8.6	ug/L	10		8260B SIM	Total/NA
cis-1,2-Dichloroethene	12000		1000	380	ug/L	1000		8260B	Total/NA
Trichloroethene	19000		1000	360	ug/L	1000		8260B	Total/NA
Vinyl chloride	910	J	1000	500	ug/L	1000		8260B	Total/NA

Client Sample ID: LMW-20-26_081020

Lab Sample ID: 240-134803-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	130		5.0	1.9	ug/L	5		8260B	Total/NA
Vinyl chloride	73		5.0	2.5	ug/L	5		8260B	Total/NA

Client Sample ID: LMW-20-27_081020

Lab Sample ID: 240-134803-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.6	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	160		8.0	3.1	ug/L	8		8260B	Total/NA
Trichloroethene	69		8.0	2.9	ug/L	8		8260B	Total/NA
Vinyl chloride	11		8.0	4.0	ug/L	8		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: 240-134803-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-134803-1

Date Collected: 08/10/20 00:00

Matrix: Water

Date Received: 08/12/20 09:30

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	0.46	ug/L			08/20/20 17:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/20/20 17:29	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/20/20 17:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/20/20 17:29	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/20/20 17:29	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/20/20 17:29	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			08/20/20 17:29	1
Naphthalene	1.0	U	1.0	0.82	ug/L			08/20/20 17:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 130					08/20/20 17:29	1
4-Bromofluorobenzene (Surr)	100		47 - 134					08/20/20 17:29	1
Toluene-d8 (Surr)	90		69 - 122					08/20/20 17:29	1
Dibromofluoromethane (Surr)	88		78 - 129					08/20/20 17:29	1

Client Sample Results

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

Job ID: 240-134803-1

Client Sample ID: LMW-20-23_081020

Lab Sample ID: 240-134803-2

Date Collected: 08/10/20 09:30

Matrix: Water

Date Received: 08/12/20 09:30

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			08/19/20 07:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 133		08/19/20 07:25	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	0.46	ug/L			08/20/20 21:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/20/20 21:38	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/20/20 21:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/20/20 21:38	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/20/20 21:38	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/20/20 21:38	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			08/20/20 21:38	1
Naphthalene	1.0	U	1.0	0.82	ug/L			08/20/20 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		75 - 130		08/20/20 21:38	1
4-Bromofluorobenzene (Surr)	99		47 - 134		08/20/20 21:38	1
Toluene-d8 (Surr)	92		69 - 122		08/20/20 21:38	1
Dibromofluoromethane (Surr)	84		78 - 129		08/20/20 21:38	1

Client Sample Results

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

Job ID: 240-134803-1

Client Sample ID: LMW-20-20_081020

Lab Sample ID: 240-134803-3

Date Collected: 08/10/20 10:55

Matrix: Water

Date Received: 08/12/20 09:30

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			08/19/20 07:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		70 - 133					08/19/20 07:50	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	0.46	ug/L			08/20/20 23:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/20/20 23:45	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/20/20 23:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/20/20 23:45	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/20/20 23:45	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/20/20 23:45	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			08/20/20 23:45	1
Naphthalene	1.0	U	1.0	0.82	ug/L			08/20/20 23:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		75 - 130					08/20/20 23:45	1
4-Bromofluorobenzene (Surr)	65		47 - 134					08/20/20 23:45	1
Toluene-d8 (Surr)	95		69 - 122					08/20/20 23:45	1
Dibromofluoromethane (Surr)	117		78 - 129					08/20/20 23:45	1

Client Sample Results

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

Job ID: 240-134803-1

Client Sample ID: LMW-20-18_081020

Lab Sample ID: 240-134803-4

Date Collected: 08/10/20 11:58

Matrix: Water

Date Received: 08/12/20 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	11	J	20	8.6	ug/L			08/19/20 08:14	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		70 - 133					08/19/20 08:14	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1000	U	1000	460	ug/L			08/20/20 16:16	1000
cis-1,2-Dichloroethene	12000		1000	380	ug/L			08/20/20 16:16	1000
Tetrachloroethene	1000	U	1000	330	ug/L			08/20/20 16:16	1000
trans-1,2-Dichloroethene	1000	U	1000	430	ug/L			08/20/20 16:16	1000
Trichloroethene	19000		1000	360	ug/L			08/20/20 16:16	1000
Vinyl chloride	910	J	1000	500	ug/L			08/20/20 16:16	1000
2-Methylnaphthalene	5000	U	5000	2400	ug/L			08/20/20 16:16	1000
Naphthalene	1000	U F1	1000	820	ug/L			08/20/20 16:16	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		75 - 130					08/20/20 16:16	1000
4-Bromofluorobenzene (Surr)	68		47 - 134					08/20/20 16:16	1000
Toluene-d8 (Surr)	89		69 - 122					08/20/20 16:16	1000
Dibromofluoromethane (Surr)	105		78 - 129					08/20/20 16:16	1000

Client Sample Results

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

Job ID: 240-134803-1

Client Sample ID: LMW-20-26_081020

Lab Sample ID: 240-134803-5

Date Collected: 08/10/20 13:14

Matrix: Water

Date Received: 08/12/20 09:30

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			08/20/20 10:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		70 - 133		08/20/20 10:57	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	2.3	ug/L			08/20/20 16:40	5
cis-1,2-Dichloroethene	130		5.0	1.9	ug/L			08/20/20 16:40	5
Tetrachloroethene	5.0	U	5.0	1.6	ug/L			08/20/20 16:40	5
trans-1,2-Dichloroethene	5.0	U	5.0	2.2	ug/L			08/20/20 16:40	5
Trichloroethene	5.0	U	5.0	1.8	ug/L			08/20/20 16:40	5
Vinyl chloride	73		5.0	2.5	ug/L			08/20/20 16:40	5
2-Methylnaphthalene	25	U	25	12	ug/L			08/20/20 16:40	5
Naphthalene	5.0	U	5.0	4.1	ug/L			08/20/20 16:40	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		75 - 130		08/20/20 16:40	5
4-Bromofluorobenzene (Surr)	74		47 - 134		08/20/20 16:40	5
Toluene-d8 (Surr)	96		69 - 122		08/20/20 16:40	5
Dibromofluoromethane (Surr)	114		78 - 129		08/20/20 16:40	5

Client Sample Results

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

Job ID: 240-134803-1

Client Sample ID: LMW-20-27_081020

Lab Sample ID: 240-134803-6

Date Collected: 08/10/20 14:06

Matrix: Water

Date Received: 08/12/20 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.6	J	2.0	0.86	ug/L			08/20/20 11:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		70 - 133		08/20/20 11:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	8.0	U	8.0	3.7	ug/L			08/20/20 17:04	8
cis-1,2-Dichloroethene	160		8.0	3.1	ug/L			08/20/20 17:04	8
Tetrachloroethene	8.0	U	8.0	2.6	ug/L			08/20/20 17:04	8
trans-1,2-Dichloroethene	8.0	U	8.0	3.5	ug/L			08/20/20 17:04	8
Trichloroethene	69		8.0	2.9	ug/L			08/20/20 17:04	8
Vinyl chloride	11		8.0	4.0	ug/L			08/20/20 17:04	8
2-Methylnaphthalene	40	U	40	19	ug/L			08/20/20 17:04	8
Naphthalene	8.0	U	8.0	6.6	ug/L			08/20/20 17:04	8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		75 - 130		08/20/20 17:04	8
4-Bromofluorobenzene (Surr)	71		47 - 134		08/20/20 17:04	8
Toluene-d8 (Surr)	95		69 - 122		08/20/20 17:04	8
Dibromofluoromethane (Surr)	108		78 - 129		08/20/20 17:04	8

Surrogate Summary

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

Job ID: 240-134803-1

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)
240-134797-C-2 MS	Matrix Spike	93	103	91	86
240-134797-F-2 MSD	Matrix Spike Duplicate	92	99	93	87
240-134803-1	TRIP BLANK	94	100	90	88
240-134803-2	LMW-20-23_081020	92	99	92	84
240-134803-3	LMW-20-20_081020	76	65	95	117
240-134803-4	LMW-20-18_081020	76	68	89	105
240-134803-4 MS	LMW-20-18_081020	70 X	90	105	96
240-134803-4 MSD	LMW-20-18_081020	73 X	92	109	103
240-134803-5	LMW-20-26_081020	87	74	96	114
240-134803-6	LMW-20-27_081020	77	71	95	108
LCS 240-448008/4	Lab Control Sample	93	102	94	89
LCS 240-448014/4	Lab Control Sample	86	98	106	107
MB 240-448008/7	Method Blank	91	98	90	88
MB 240-448014/7	Method Blank	87	72	86	103

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)
240-134803-2	LMW-20-23_081020	92
240-134803-3	LMW-20-20_081020	87
240-134803-4	LMW-20-18_081020	86
240-134803-5	LMW-20-26_081020	87
240-134803-6	LMW-20-27_081020	87
240-134914-A-2 MS	Matrix Spike	87
240-134914-A-2 MSD	Matrix Spike Duplicate	89
500-186458-A-2 MS	Matrix Spike	90
500-186458-C-2 MSD	Matrix Spike Duplicate	88
LCS 240-447721/4	Lab Control Sample	83
LCS 240-447911/4	Lab Control Sample	86
MB 240-447721/5	Method Blank	86
MB 240-447911/5	Method Blank	85

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-134803-1

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

Lab Sample ID: MB 240-448008/7
Matrix: Water
Analysis Batch: 448008

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	0.46	ug/L			08/20/20 15:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/20/20 15:00	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/20/20 15:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/20/20 15:00	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/20/20 15:00	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/20/20 15:00	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			08/20/20 15:00	1
Naphthalene	1.0	U	1.0	0.82	ug/L			08/20/20 15:00	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	91		75 - 130		08/20/20 15:00	1
4-Bromofluorobenzene (Surr)	98		47 - 134		08/20/20 15:00	1
Toluene-d8 (Surr)	90		69 - 122		08/20/20 15:00	1
Dibromofluoromethane (Surr)	88		78 - 129		08/20/20 15:00	1

Lab Sample ID: LCS 240-448008/4
Matrix: Water
Analysis Batch: 448008

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	10.0	8.99		ug/L		90	73 - 129
cis-1,2-Dichloroethene	10.0	9.00		ug/L		90	75 - 124
Tetrachloroethene	10.0	10.2		ug/L		102	70 - 125
trans-1,2-Dichloroethene	10.0	9.05		ug/L		91	74 - 130
Trichloroethene	10.0	9.61		ug/L		96	71 - 121
Vinyl chloride	10.0	10.9		ug/L		109	61 - 134
Naphthalene	10.0	9.77		ug/L		98	28 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	93		75 - 130
4-Bromofluorobenzene (Surr)	102		47 - 134
Toluene-d8 (Surr)	94		69 - 122
Dibromofluoromethane (Surr)	89		78 - 129

Lab Sample ID: 240-134797-C-2 MS
Matrix: Water
Analysis Batch: 448008

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	10.0	8.88		ug/L		89	64 - 132
cis-1,2-Dichloroethene	1.0	U	10.0	8.85		ug/L		88	68 - 121
Tetrachloroethene	1.0	U	10.0	8.92		ug/L		89	52 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	8.92		ug/L		89	69 - 126
Trichloroethene	1.0	U	10.0	8.49		ug/L		85	56 - 124
Vinyl chloride	1.0	U	10.0	11.1		ug/L		111	49 - 136

QC Sample Results

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

Job ID: 240-134803-1

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

Lab Sample ID: 240-134797-C-2 MS
Matrix: Water
Analysis Batch: 448008

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)	93		75 - 130
4-Bromofluorobenzene (Surr)	103		47 - 134
Toluene-d8 (Surr)	91		69 - 122
Dibromofluoromethane (Surr)	86		78 - 129

Lab Sample ID: 240-134797-F-2 MSD
Matrix: Water
Analysis Batch: 448008

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	10.0	8.93		ug/L		89	64 - 132	1	35
cis-1,2-Dichloroethene	1.0	U	10.0	9.16		ug/L		92	68 - 121	3	35
Tetrachloroethene	1.0	U	10.0	8.81		ug/L		88	52 - 129	1	35
trans-1,2-Dichloroethene	1.0	U	10.0	8.89		ug/L		89	69 - 126	0	35
Trichloroethene	1.0	U	10.0	8.99		ug/L		90	56 - 124	6	35
Vinyl chloride	1.0	U	10.0	11.1		ug/L		111	49 - 136	0	35

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	92		75 - 130
4-Bromofluorobenzene (Surr)	99		47 - 134
Toluene-d8 (Surr)	93		69 - 122
Dibromofluoromethane (Surr)	87		78 - 129

Lab Sample ID: MB 240-448014/7
Matrix: Water
Analysis Batch: 448014

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	0.46	ug/L			08/20/20 15:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.38	ug/L			08/20/20 15:04	1
Tetrachloroethene	1.0	U	1.0	0.33	ug/L			08/20/20 15:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.43	ug/L			08/20/20 15:04	1
Trichloroethene	1.0	U	1.0	0.36	ug/L			08/20/20 15:04	1
Vinyl chloride	1.0	U	1.0	0.50	ug/L			08/20/20 15:04	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			08/20/20 15:04	1
Naphthalene	1.0	U	1.0	0.82	ug/L			08/20/20 15:04	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)	87		75 - 130		08/20/20 15:04	1
4-Bromofluorobenzene (Surr)	72		47 - 134		08/20/20 15:04	1
Toluene-d8 (Surr)	86		69 - 122		08/20/20 15:04	1
Dibromofluoromethane (Surr)	103		78 - 129		08/20/20 15:04	1

QC Sample Results

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

Job ID: 240-134803-1

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

Lab Sample ID: LCS 240-448014/4
Matrix: Water
Analysis Batch: 448014

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	10.0	9.50		ug/L		95	73 - 129
cis-1,2-Dichloroethene	10.0	9.74		ug/L		97	75 - 124
Tetrachloroethene	10.0	11.7		ug/L		117	70 - 125
trans-1,2-Dichloroethene	10.0	10.2		ug/L		102	74 - 130
Trichloroethene	10.0	10.0		ug/L		100	71 - 121
Vinyl chloride	10.0	7.79		ug/L		78	61 - 134
Naphthalene	10.0	4.74		ug/L		47	28 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		75 - 130
4-Bromofluorobenzene (Surr)	98		47 - 134
Toluene-d8 (Surr)	106		69 - 122
Dibromofluoromethane (Surr)	107		78 - 129

Lab Sample ID: 240-134803-4 MS
Matrix: Water
Analysis Batch: 448014

Client Sample ID: LMW-20-18_081020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1000	U	10000	8930		ug/L		89	64 - 132
cis-1,2-Dichloroethene	12000		10000	20500		ug/L		82	68 - 121
Tetrachloroethene	1000	U	10000	11600		ug/L		116	52 - 129
trans-1,2-Dichloroethene	1000	U	10000	9950		ug/L		100	69 - 126
Trichloroethene	19000		10000	26100		ug/L		72	56 - 124
Vinyl chloride	910	J	10000	7240		ug/L		63	49 - 136
Naphthalene	1000	U F1	10000	2140	F1	ug/L		21	30 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70	X	75 - 130
4-Bromofluorobenzene (Surr)	90		47 - 134
Toluene-d8 (Surr)	105		69 - 122
Dibromofluoromethane (Surr)	96		78 - 129

Lab Sample ID: 240-134803-4 MSD
Matrix: Water
Analysis Batch: 448014

Client Sample ID: LMW-20-18_081020
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	1000	U	10000	9370		ug/L		94	64 - 132	5	35
cis-1,2-Dichloroethene	12000		10000	20900		ug/L		86	68 - 121	2	35
Tetrachloroethene	1000	U	10000	11400		ug/L		114	52 - 129	2	35
trans-1,2-Dichloroethene	1000	U	10000	10300		ug/L		103	69 - 126	3	35
Trichloroethene	19000		10000	26200		ug/L		72	56 - 124	0	35
Vinyl chloride	910	J	10000	8170		ug/L		73	49 - 136	12	35
Naphthalene	1000	U F1	10000	2700	F1	ug/L		27	30 - 125	23	24

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-134803-1

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

Lab Sample ID: 240-134803-4 MSD
Matrix: Water
Analysis Batch: 448014

Client Sample ID: LMW-20-18_081020
Prep Type: Total/NA

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	73	X	75 - 130
4-Bromofluorobenzene (Surr)	92		47 - 134
Toluene-d8 (Surr)	109		69 - 122
Dibromofluoromethane (Surr)	103		78 - 129

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

Lab Sample ID: MB 240-447721/5
Matrix: Water
Analysis Batch: 447721

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			08/19/20 04:08	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	86		70 - 133		08/19/20 04:08	1

Lab Sample ID: LCS 240-447721/4
Matrix: Water
Analysis Batch: 447721

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	9.62		ug/L		96	80 - 135

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	83		70 - 133

Lab Sample ID: 240-134914-A-2 MS
Matrix: Water
Analysis Batch: 447721

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	1.5	J	10.0	10.8		ug/L		92	46 - 170

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	87		70 - 133

Lab Sample ID: 240-134914-A-2 MSD
Matrix: Water
Analysis Batch: 447721

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	1.5	J	10.0	10.2		ug/L		86	46 - 170	6	26

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	89		70 - 133

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-134803-1

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

Lab Sample ID: MB 240-447911/5
Matrix: Water
Analysis Batch: 447911

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			08/20/20 04:19	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		70 - 133					08/20/20 04:19	1

Lab Sample ID: LCS 240-447911/4
Matrix: Water
Analysis Batch: 447911

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	8.67		ug/L		87	80 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	86		70 - 133				

Lab Sample ID: 500-186458-A-2 MS
Matrix: Water
Analysis Batch: 447911

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	9.82		ug/L		98	46 - 170
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	90		70 - 133						

Lab Sample ID: 500-186458-C-2 MSD
Matrix: Water
Analysis Batch: 447911

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	Limit
1,4-Dioxane	2.0	U	10.0	9.87		ug/L		99	46 - 170	1	26
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	88		70 - 133								

QC Association Summary

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

Job ID: 240-134803-1

GC/MS VOA

Analysis Batch: 447721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134803-2	LMW-20-23_081020	Total/NA	Water	8260B SIM	
240-134803-3	LMW-20-20_081020	Total/NA	Water	8260B SIM	
240-134803-4	LMW-20-18_081020	Total/NA	Water	8260B SIM	
MB 240-447721/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-447721/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-134914-A-2 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-134914-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 447911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134803-5	LMW-20-26_081020	Total/NA	Water	8260B SIM	
240-134803-6	LMW-20-27_081020	Total/NA	Water	8260B SIM	
MB 240-447911/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-447911/4	Lab Control Sample	Total/NA	Water	8260B SIM	
500-186458-A-2 MS	Matrix Spike	Total/NA	Water	8260B SIM	
500-186458-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 448008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134803-1	TRIP BLANK	Total/NA	Water	8260B	
240-134803-2	LMW-20-23_081020	Total/NA	Water	8260B	
MB 240-448008/7	Method Blank	Total/NA	Water	8260B	
LCS 240-448008/4	Lab Control Sample	Total/NA	Water	8260B	
240-134797-C-2 MS	Matrix Spike	Total/NA	Water	8260B	
240-134797-F-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 448014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-134803-3	LMW-20-20_081020	Total/NA	Water	8260B	
240-134803-4	LMW-20-18_081020	Total/NA	Water	8260B	
240-134803-5	LMW-20-26_081020	Total/NA	Water	8260B	
240-134803-6	LMW-20-27_081020	Total/NA	Water	8260B	
MB 240-448014/7	Method Blank	Total/NA	Water	8260B	
LCS 240-448014/4	Lab Control Sample	Total/NA	Water	8260B	
240-134803-4 MS	LMW-20-18_081020	Total/NA	Water	8260B	
240-134803-4 MSD	LMW-20-18_081020	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-134803-1

Client Sample ID: TRIP BLANK

Date Collected: 08/10/20 00:00

Date Received: 08/12/20 09:30

Lab Sample ID: 240-134803-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	448008	08/20/20 17:29	LRW	TAL CAN

Client Sample ID: LMW-20-23_081020

Date Collected: 08/10/20 09:30

Date Received: 08/12/20 09:30

Lab Sample ID: 240-134803-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	448008	08/20/20 21:38	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	447721	08/19/20 07:25	SAM	TAL CAN

Client Sample ID: LMW-20-20_081020

Date Collected: 08/10/20 10:55

Date Received: 08/12/20 09:30

Lab Sample ID: 240-134803-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	448014	08/20/20 23:45	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	447721	08/19/20 07:50	SAM	TAL CAN

Client Sample ID: LMW-20-18_081020

Date Collected: 08/10/20 11:58

Date Received: 08/12/20 09:30

Lab Sample ID: 240-134803-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	448014	08/20/20 16:16	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		10	447721	08/19/20 08:14	SAM	TAL CAN

Client Sample ID: LMW-20-26_081020

Date Collected: 08/10/20 13:14

Date Received: 08/12/20 09:30

Lab Sample ID: 240-134803-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	448014	08/20/20 16:40	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	447911	08/20/20 10:57	SAM	TAL CAN

Client Sample ID: LMW-20-27_081020

Date Collected: 08/10/20 14:06

Date Received: 08/12/20 09:30

Lab Sample ID: 240-134803-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		8	448014	08/20/20 17:04	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	447911	08/20/20 11:22	SAM	TAL CAN

Laboratory References:

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

Eurofins TestAmerica, Canton

Accreditation/Certification Summary

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

Job ID: 240-134803-1

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	07-31-20 *
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	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

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



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 Himskey Telephone: 248-994-2240 Email: kristoffer.himskey@arcadis.com		Lab Contact: Mike DeMomico Telephone: 330-97-9396	
Sampler Name: CHRISTINA WEAVER Method of Shipment/Carrier: Shipping/Tracking No:		Analysis Turnaround Time TAT if different from below: <input checked="" 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	
Sample Identification Sample Date Sample Time		Containers & Preservatives HCl HNO3 H2SO4 Other:	
TRIP BLANK		1	
LMW-20-23-081020		6	
LMW-20-20-081020		6	
LMW-20-18-081020		6	
LMW-20-26-081020		6	
LMW-20-27-081020		6	
Sample Specific Notes / Special Instructions: "1 TRIP BLANK" "3 VOAS METHOD B260B" "3 VOAS METHOD B260B" " " " " " " " " " " " " " " "		Analyses 1,4-Dioxane 8260B SIM X Vinyl Chloride 8260B X TCE 8260B X PCE 8260B X Trans-1,2-DCE 8260B X cis-1,2-DCE 8260B X 1,1-DCE 8260B X Composite=C/Grab=C X Filtered Sample (Y/N) NG 2-METHYLPHTHALATE 8260B X NAPHTHALENE 8260B X	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Irritant <input type="checkbox"/> Unknown		240-134803 Chain of Custody	
Special Instructions/OC Requirements & Comments: Submit all results through Cadena at jfomalia@cadena.com, Cadena #E203728 Level IV Reporting requested.			
Relinquished by: <i>Christina Weaver</i>		Date/Time: 8/10/20 / 1500 Company: ARCADIS	
Relinquished by: <i>Jim Hal</i>		Date/Time: 8/11/20 1415 Company: ETA	
Relinquished by: <i>Jim Hal</i>		Date/Time: 8/12/20 1416 Company: ETA	
Received by: <i>Novi Cold Storage</i>		Date/Time: 8/10/20 / 1500 Company: ARCADIS	
Received by: <i>Jim Hal</i>		Date/Time: 8/11/20 1415 Company: ETA	
Received in Laboratory by: <i>Jim Hal</i>		Date/Time: 8-12-20 930 Company: ETA	

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Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 134803

Canton Facility

Client Arcadis

Site Name _____

Cooler unpacked by:

Cooler Received on 8-12-20

Opened on 8-12-20 930

Ryan C

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time

Storage Location

TestAmerica Cooler # TA 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-10 (CF +0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN #IR-11 (CF +0.9 °C) Observed Cooler Temp. 4.3 °C Corrected Cooler Temp. 5.2 °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 be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
 If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC911298
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. 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 _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

18. 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)

19. 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: _____