

ANALYTICAL REPORT

Eurofins Canton
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Laboratory Job ID: 240-163402-1
Client Project/Site: Ford LTP - Off Site

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

Attn: Kristoffer Hinskey



Authorized for release by:
3/22/2022 10:14:24 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 - Off Site

Job ID: 240-163402-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
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 - Off Site

Job ID: 240-163402-1

Job ID: 240-163402-1

Laboratory: Eurofins Canton

Narrative

Job Narrative 240-163402-1

Comments

No additional comments.

Receipt

The samples were received on 3/8/2022 9:50 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 0.8° C and 1.3° C.

GC/MS VOA

Method 8260B: Surrogate recovery for the following sample was outside of acceptance limits: TRIP BLANK_95 (240-163402-1). There was insufficient sample to perform a re-extraction; therefore, the data have been reported.

Method 8260B: The continuing calibration verification (CCV) associated with batch 519738 recovered above the upper control limit for 1,1-Dichloroethene. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated sample is impacted: MW-136S_030322 (240-163402-2).

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

VOA Prep

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

Method Summary

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

Job ID: 240-163402-1

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Sample Summary

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

Job ID: 240-163402-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-163402-1	TRIP BLANK_95	Water	03/03/22 00:00	03/08/22 14:24
240-163402-2	MW-136S_030322	Water	03/03/22 10:46	03/08/22 14:24

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Detection Summary

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

Job ID: 240-163402-1

Client Sample ID: TRIP BLANK_95

Lab Sample ID: 240-163402-1

No Detections.

Client Sample ID: MW-136S_030322

Lab Sample ID: 240-163402-2

No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

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 - Off Site

Job ID: 240-163402-1

Client Sample ID: TRIP BLANK_95

Lab Sample ID: 240-163402-1

Date Collected: 03/03/22 00:00

Matrix: Water

Date Received: 03/08/22 14:24

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			03/10/22 19:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/10/22 19:04	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/10/22 19:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/10/22 19:04	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/10/22 19:04	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/10/22 19:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	61	S1-	62 - 137		03/10/22 19:04	1
4-Bromofluorobenzene (Surr)	117		56 - 136		03/10/22 19:04	1
Toluene-d8 (Surr)	79		78 - 122		03/10/22 19:04	1
Dibromofluoromethane (Surr)	90		73 - 120		03/10/22 19:04	1

Client Sample Results

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

Job ID: 240-163402-1

Client Sample ID: MW-136S_030322

Lab Sample ID: 240-163402-2

Date Collected: 03/03/22 10:46

Matrix: Water

Date Received: 03/08/22 14:24

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			03/14/22 21:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		66 - 120					03/14/22 21:10	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			03/11/22 14:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/11/22 14:42	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/11/22 14:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/11/22 14:42	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/11/22 14:42	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/11/22 14:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		62 - 137					03/11/22 14:42	1
4-Bromofluorobenzene (Surr)	116		56 - 136					03/11/22 14:42	1
Toluene-d8 (Surr)	82		78 - 122					03/11/22 14:42	1
Dibromofluoromethane (Surr)	94		73 - 120					03/11/22 14:42	1

Surrogate Summary

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

Job ID: 240-163402-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-163386-B-6 MS	Matrix Spike	66	116	76 S1-	90
240-163386-B-6 MSD	Matrix Spike Duplicate	64	116	78	91
240-163402-1	TRIP BLANK_95	61 S1-	117	79	90
240-163402-2	MW-136S_030322	73	116	82	94
240-163482-B-6 MS	Matrix Spike	70	115	82	91
240-163482-B-6 MSD	Matrix Spike Duplicate	75	122	83	97
LCS 240-519609/5	Lab Control Sample	66	114	78	92
LCS 240-519738/5	Lab Control Sample	74	124	84	91
MB 240-519609/8	Method Blank	68	120	79	95
MB 240-519738/8	Method Blank	78	115	81	92

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

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA
		(66-120)
240-163402-2	MW-136S_030322	79
240-163560-E-5 MS	Matrix Spike	82
240-163560-E-5 MSD	Matrix Spike Duplicate	83
LCS 240-519881/4	Lab Control Sample	80
MB 240-519881/5	Method Blank	80

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-163402-1

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

Lab Sample ID: MB 240-519609/8
Matrix: Water
Analysis Batch: 519609

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	0.49	ug/L			03/10/22 13:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/10/22 13:21	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/10/22 13:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/10/22 13:21	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/10/22 13:21	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/10/22 13:21	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	68		62 - 137		03/10/22 13:21	1
4-Bromofluorobenzene (Surr)	120		56 - 136		03/10/22 13:21	1
Toluene-d8 (Surr)	79		78 - 122		03/10/22 13:21	1
Dibromofluoromethane (Surr)	95		73 - 120		03/10/22 13:21	1

Lab Sample ID: LCS 240-519609/5
Matrix: Water
Analysis Batch: 519609

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	23.9		ug/L		120	63 - 134
cis-1,2-Dichloroethene	20.0	23.9		ug/L		119	77 - 123
Tetrachloroethene	20.0	17.2		ug/L		86	76 - 123
trans-1,2-Dichloroethene	20.0	23.9		ug/L		119	75 - 124
Trichloroethene	20.0	24.5		ug/L		122	70 - 122
Vinyl chloride	20.0	16.8		ug/L		84	60 - 144

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	66		62 - 137
4-Bromofluorobenzene (Surr)	114		56 - 136
Toluene-d8 (Surr)	78		78 - 122
Dibromofluoromethane (Surr)	92		73 - 120

Lab Sample ID: 240-163386-B-6 MS
Matrix: Water
Analysis Batch: 519609

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

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
1,1-Dichloroethene	1000	U	20000	22600		ug/L		113	56 - 135
cis-1,2-Dichloroethene	29000		20000	49400		ug/L		104	66 - 128
Tetrachloroethene	1000	U	20000	15200		ug/L		76	62 - 131
trans-1,2-Dichloroethene	910	J	20000	23400		ug/L		113	56 - 136
Trichloroethene	5400		20000	27500		ug/L		111	61 - 124
Vinyl chloride	1000	U	20000	17400		ug/L		87	43 - 157

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	66		62 - 137
4-Bromofluorobenzene (Surr)	116		56 - 136
Toluene-d8 (Surr)	76	S1-	78 - 122

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QC Sample Results

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

Job ID: 240-163402-1

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

Lab Sample ID: 240-163386-B-6 MS
Matrix: Water
Analysis Batch: 519609

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

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	90		73 - 120

Lab Sample ID: 240-163386-B-6 MSD
Matrix: Water
Analysis Batch: 519609

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

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,1-Dichloroethene	1000	U	20000	22100		ug/L		111	56 - 135	2	26
cis-1,2-Dichloroethene	29000		20000	48900		ug/L		102	66 - 128	1	14
Tetrachloroethene	1000	U	20000	15300		ug/L		76	62 - 131	0	20
trans-1,2-Dichloroethene	910	J	20000	23100		ug/L		111	56 - 136	1	15
Trichloroethene	5400		20000	27200		ug/L		109	61 - 124	1	15
Vinyl chloride	1000	U	20000	19200		ug/L		96	43 - 157	10	24

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	64		62 - 137
4-Bromofluorobenzene (Surr)	116		56 - 136
Toluene-d8 (Surr)	78		78 - 122
Dibromofluoromethane (Surr)	91		73 - 120

Lab Sample ID: MB 240-519738/8
Matrix: Water
Analysis Batch: 519738

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	0.49	ug/L			03/11/22 13:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/11/22 13:02	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/11/22 13:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/11/22 13:02	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/11/22 13:02	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/11/22 13:02	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	78		62 - 137		03/11/22 13:02	1
4-Bromofluorobenzene (Surr)	115		56 - 136		03/11/22 13:02	1
Toluene-d8 (Surr)	81		78 - 122		03/11/22 13:02	1
Dibromofluoromethane (Surr)	92		73 - 120		03/11/22 13:02	1

Lab Sample ID: LCS 240-519738/5
Matrix: Water
Analysis Batch: 519738

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
1,1-Dichloroethene	20.0	25.1		ug/L		125	63 - 134
cis-1,2-Dichloroethene	20.0	22.4		ug/L		112	77 - 123
Tetrachloroethene	20.0	17.8		ug/L		89	76 - 123
trans-1,2-Dichloroethene	20.0	23.4		ug/L		117	75 - 124
Trichloroethene	20.0	23.7		ug/L		119	70 - 122

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QC Sample Results

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

Job ID: 240-163402-1

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

Lab Sample ID: LCS 240-519738/5
Matrix: Water
Analysis Batch: 519738

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	20.0	24.0		ug/L		120	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		62 - 137
4-Bromofluorobenzene (Surr)	124		56 - 136
Toluene-d8 (Surr)	84		78 - 122
Dibromofluoromethane (Surr)	91		73 - 120

Lab Sample ID: 240-163482-B-6 MS
Matrix: Water
Analysis Batch: 519738

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10	U	200	237		ug/L		119	56 - 135
cis-1,2-Dichloroethene	39		200	268		ug/L		114	66 - 128
Tetrachloroethene	10	U	200	173		ug/L		87	62 - 131
trans-1,2-Dichloroethene	10	U	200	230		ug/L		115	56 - 136
Trichloroethene	100		200	337		ug/L		116	61 - 124
Vinyl chloride	10	U	200	277		ug/L		139	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70		62 - 137
4-Bromofluorobenzene (Surr)	115		56 - 136
Toluene-d8 (Surr)	82		78 - 122
Dibromofluoromethane (Surr)	91		73 - 120

Lab Sample ID: 240-163482-B-6 MSD
Matrix: Water
Analysis Batch: 519738

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	10	U	200	236		ug/L		118	56 - 135	1	26
cis-1,2-Dichloroethene	39		200	265		ug/L		113	66 - 128	1	14
Tetrachloroethene	10	U	200	163		ug/L		81	62 - 131	6	20
trans-1,2-Dichloroethene	10	U	200	222		ug/L		111	56 - 136	4	15
Trichloroethene	100		200	320		ug/L		108	61 - 124	5	15
Vinyl chloride	10	U	200	259		ug/L		130	43 - 157	7	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		62 - 137
4-Bromofluorobenzene (Surr)	122		56 - 136
Toluene-d8 (Surr)	83		78 - 122
Dibromofluoromethane (Surr)	97		73 - 120

QC Sample Results

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

Job ID: 240-163402-1

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

Lab Sample ID: MB 240-519881/5
Matrix: Water
Analysis Batch: 519881

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			03/14/22 18:24	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		66 - 120					03/14/22 18:24	1

Lab Sample ID: LCS 240-519881/4
Matrix: Water
Analysis Batch: 519881

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	10.0	10.6		ug/L		106	80 - 122
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	80		66 - 120				

Lab Sample ID: 240-163560-E-5 MS
Matrix: Water
Analysis Batch: 519881

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	1.3	J	10.0	12.1		ug/L		108	51 - 153
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	82		66 - 120						

Lab Sample ID: 240-163560-E-5 MSD
Matrix: Water
Analysis Batch: 519881

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	1.3	J	10.0	12.1		ug/L		108	51 - 153	0	16
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	83		66 - 120								

QC Association Summary

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

Job ID: 240-163402-1

GC/MS VOA

Analysis Batch: 519609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-163402-1	TRIP BLANK_95	Total/NA	Water	8260B	
MB 240-519609/8	Method Blank	Total/NA	Water	8260B	
LCS 240-519609/5	Lab Control Sample	Total/NA	Water	8260B	
240-163386-B-6 MS	Matrix Spike	Total/NA	Water	8260B	
240-163386-B-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 519738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-163402-2	MW-136S_030322	Total/NA	Water	8260B	
MB 240-519738/8	Method Blank	Total/NA	Water	8260B	
LCS 240-519738/5	Lab Control Sample	Total/NA	Water	8260B	
240-163482-B-6 MS	Matrix Spike	Total/NA	Water	8260B	
240-163482-B-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 519881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-163402-2	MW-136S_030322	Total/NA	Water	8260B SIM	
MB 240-519881/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-519881/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-163560-E-5 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-163560-E-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Lab Chronicle

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

Job ID: 240-163402-1

Client Sample ID: TRIP BLANK_95

Lab Sample ID: 240-163402-1

Date Collected: 03/03/22 00:00

Matrix: Water

Date Received: 03/08/22 14:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519609	03/10/22 19:04	LEE	TAL CAN

Client Sample ID: MW-136S_030322

Lab Sample ID: 240-163402-2

Date Collected: 03/03/22 10:46

Matrix: Water

Date Received: 03/08/22 14:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519738	03/11/22 14:42	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	519881	03/14/22 21:10	CS	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 - Off Site

Job ID: 240-163402-1

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	03-16-22
Oregon	NELAP	4062	03-16-22
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.



Chain of Custody Record

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

Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other		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 Off-Site Project Number: 30080642-402.04 PO # 30080642-402.04		Client Project Manager: Kris Hinskey Telephone: 248-994-2240 Email: kristoffer.hinskey@arcadis.com Sampler Name: <i>Gregory Scheffer</i> Method of Shipment/Carrier: Shipping/Tracking No:		Site Contact: Julia McClafferty Telephone: 734-644-5131 Lab Contact: Mike DeMonico Telephone: 330-497-9396		TestAmerica Laboratories, Inc. COC No: 1 of 1 For lab use only Walk-in client Lab sampling Job/SDG No:		
Analysis Turnaround Time IAT if different from below: <input type="checkbox"/> 3 weeks <input checked="" type="checkbox"/> 10 day <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Analysis 1,4-Dioxane 8260B SIM Vinyl Chloride 8260B TCE 8260B PCE 8260B Trans-1,2-DCE 8260B Cis-1,2-DCE 8260B 1,1-DCE 8260B Composite-C / Grab-B Filtered Sample (Y/N)		Containers & Preservatives H2SO4 HNO3 HCl NaOH ZnAc NaOH Tapes Other:		Matrix Aqueous Sediment Solid Other:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 yr) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For		Sample Specific Notes / Special Instructions: 1 Trip Blank 3 VOAs for 8260B 3 VOAs for 8260B SIM
Sample Identification TRIP BLANK_95 MW-1365-030322		Sample Date — 03/03/22 10:46		Sample Time — 10:46		Sample Disposal (A fee may be assessed if samples are retained longer than 1 yr) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For		Sample Specific Notes / Special Instructions: 1 Trip Blank 3 VOAs for 8260B 3 VOAs for 8260B SIM		
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		Special Instructions/OC Requirements & Comments: Sample Address: Residential Row - Capitol Submit all results through Cadena at jomalie@cadenasco.com, Cadena #E203631 Level IV Reporting requested.		Relinquished by: <i>Gregory Scheffer</i> Relinquished by: <i>ARCADIS</i> Relinquished by: <i>EENA</i>		Date/Time: 3/4/22 8:24 Date/Time: 3/7/22 Date/Time: 3/7/22		Company: <i>Arcadis</i> Company: <i>ARCADIS</i> Company: <i>EENA</i>		



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Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : 163402

Canton Facility

Client Arcadis Site Name _____ Cooler unpacked by: Tammy Rayer

Cooler Received on 3-8-22 Opened on 3-8-22

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

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

TestAmerica Cooler # 1A 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. _____ °C
 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
 -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

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

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)? Yes No

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? 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 _____

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: _____

Login #: _____

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	1.5	1.3	Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15	1.0	0.8	Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
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TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA	Client	Box	Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
<input type="checkbox"/> See Temperature Excursion Form							

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



Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 240-163402-1

Login Number: 163402

List Number: 1

Creator: Royer, Tammy R

List Source: Eurofins Canton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		Refer to CRF
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		