TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-91358-1
Client Project/Site: Ford LTP Livonia MI - E203728

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

Attn: Kristoffer Hinskey

Denise Pohl

Authorized for release by:
2/19/2018 4:36:33 PM

Denise Pohl, Project Manager II
(330)966-9789
denise.pohl@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD 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.
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits
*	LCS or LCSD is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 240-91358-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Livonia MI - E203728

Report Number: 240-91358-1

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.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. 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 TestAmerica and its client.

RECEIPT

The samples were received on 2/9/2018 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.3º C, 1.7º C and 3.1º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MW-65-020618 (240-91358-1), MW-44-020618 (240-91358-2), MW-22-020618 (240-91358-3), MW-62-020618 (240-91358-4), MW-15-59D-020618 (240-91358-5), MW-15-60D-020618 (240-91358-6), MW-15-61D-020618 (240-91358-7), MW-23-020618 (240-91358-8), TRIP BLANK (240-91358-9), MW-28-020718 (240-91358-10), MW-58-020718 (240-91358-11), MW-55-020718 (240-91358-12), MW-54-020718 (240-91358-13), MW-53-020718 (240-91358-14), MW-63-020718 (240-91358-15), PW-16-01-020718 (240-91358-16) and TW-16-01-020718 (240-91358-17) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 02/13/2018, 02/14/2018 and 02/15/2018.

Methylene Chloride was detected in method blanks MB 240-314579/6, MB 240-314760/6 and MB 240-314918/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. f the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Chloromethane and Toluene failed the recovery criteria high for LCS 240-314579/4. Refer to the QC report for details.

Job ID: 240-91358-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

1,1,2-Trichloro-1,2,2-trifluoroethane failed the recovery criteria low for the MS of sample 240-91308-3 in batch 240-314579. 1,1,2,2-Tetrachloroethane and 1,1,2-Trichloroethane failed the recovery criteria high. 1,1,2,2-Tetrachloroethane failed the recovery criteria high for the MSD of sample 240-91308-3 in batch 240-314579. Acetone and Trichlorofluoromethane exceeded the RPD limit. Several analytes exceeded the RPD limit for the MSD of sample 240-91314-3 in batch 240-314760. Chloromethane failed the recovery criteria low for the MS of sample 240-91339-9 in batch 240-314918. Vinyl chloride exceeded the RPD limit for the MSD of sample 240-91339-9 in batch 240-314918.

Samples MW-65-020618 (240-91358-1)[2X], MW-44-020618 (240-91358-2)[6.67X], MW-22-020618 (240-91358-3)[142.86X], MW-23-020618 (240-91358-8)[1000X], PW-16-01-020718 (240-91358-16)[14.28X] and TW-16-01-020718 (240-91358-17)[33.33X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 314579 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-62-020618 (240-91358-4), MW-15-59D-020618 (240-91358-5), MW-15-60D-020618 (240-91358-6), MW-15-61D-020618 (240-91358-7) and (240-91308-B-3).

Method(s) 8260B: The laboratory control sample (LCS) for 314579 recovered outside control limits for multiple analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported: MW-62-020618 (240-91358-4), MW-15-59D-020618 (240-91358-5), MW-15-60D-020618 (240-91358-6), MW-15-61D-020618 (240-91358-7) and (LCS 240-314579/4).

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 MW-65-020618 (240-91358-1), MW-44-020618 (240-91358-2), MW-22-020618 (240-91358-3), MW-62-020618 (240-91358-4), MW-15-59D-020618 (240-91358-5), MW-15-60D-020618 (240-91358-6), MW-15-61D-020618 (240-91358-7), MW-23-020618 (240-91358-8), MW-28-020718 (240-91358-10), MW-58-020718 (240-91358-11), MW-55-020718 (240-91358-12), MW-54-020718 (240-91358-13), MW-53-020718 (240-91358-14), MW-63-020718 (240-91358-15), PW-16-01-020718 (240-91358-16) and TW-16-01-020718 (240-91358-17) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 02/13/2018, 02/14/2018 and 02/15/2018.

1,2-Dichloroethane-d4 (Surr) failed the surrogate recovery criteria high for TW-16-01-020718 (240-91358-17) and 500-140728-B-11 MSD.

Sample MW-23-020618 (240-91358-8)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260B SIM: Surrogate recovery for the following sample was outside control limits: (500-140728-B-11 MSD). Reanalysis was not required.

Method(s) 8260B SIM: The following sample was diluted due to the nature of the sample matrix: MW-23-020618 (240-91358-8). Elevated reporting limits (RLs) are provided.

Method(s) 8260B SIM: Surrogate recovery for the following sample was outside the upper control limit: TW-16-01-020718 (240-91358-17). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-91358-1	MW-65-020618	Water	02/06/18 17:02	02/09/18 09:20
240-91358-2	MW-44-020618	Water	02/06/18 16:07	02/09/18 09:20
240-91358-3	MW-22-020618	Water	02/06/18 15:02	02/09/18 09:20
240-91358-4	MW-62-020618	Water	02/06/18 12:56	02/09/18 09:20
240-91358-5	MW-15-59D-020618	Water	02/06/18 12:12	02/09/18 09:20
240-91358-6	MW-15-60D-020618	Water	02/06/18 10:27	02/09/18 09:20
240-91358-7	MW-15-61D-020618	Water	02/06/18 14:32	02/09/18 09:20
240-91358-8	MW-23-020618	Water	02/06/18 16:02	02/09/18 09:20
240-91358-9	TRIP BLANK	Water	02/06/18 00:00	02/09/18 09:20
240-91358-10	MW-28-020718	Water	02/07/18 12:57	02/09/18 09:20
240-91358-11	MW-58-020718	Water	02/07/18 16:57	02/09/18 09:20
240-91358-12	MW-55-020718	Water	02/07/18 13:52	02/09/18 09:20
240-91358-13	MW-54-020718	Water	02/07/18 15:07	02/09/18 09:20
240-91358-14	MW-53-020718	Water	02/07/18 16:02	02/09/18 09:20
240-91358-15	MW-63-020718	Water	02/07/18 17:05	02/09/18 09:20
240-91358-16	PW-16-01-020718	Water	02/07/18 15:55	02/09/18 09:20
240-91358-17	TW-16-01-020718	Water	02/07/18 14:55	02/09/18 09:20

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-65-020618 — Lab Sample ID: 240-91358-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	3.4		2.0	0.24	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	4.1		2.0	0.60	ug/L	2		8260B	Total/NA
Methylene Chloride	1.5	J B	10	1.1	ug/L	2		8260B	Total/NA
Vinyl chloride	36		2.0	0.90	ug/L	2		8260B	Total/NA

Client Sample ID: MW-44-020618 — Lab Sample ID: 240-91358-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	9.0		2.0	0.24	ug/L	1		8260B SIM	Total/NA
Methylene Chloride	4.1	J B	33	3.5	ug/L	6.67		8260B	Total/NA
Vinyl chloride	210		6.7	3.0	ug/L	6.67		8260B	Total/NA

Client Sample ID: MW-22-020618 — Lab Sample ID: 240-91358-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	22		2.0	0.24	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	200		140	43	ug/L	142.86		8260B	Total/NA
Methylene Chloride	120	J B	710	76	ug/L	142.86		8260B	Total/NA
Vinyl chloride	1500		140	64	ug/L	142.86		8260B	Total/NA

Client Sample ID: MW-62-020618 — Lab Sample ID: 240-91358-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.1		2.0	0.24	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	0.30	J	1.0	0.30	ug/L	1		8260B	Total/NA
Vinyl chloride	1.3		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-15-59D-020618 — Lab Sample ID: 240-91358-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	0.76	J	1.0	0.44	ug/L	1		8260B	Total/NA
Toluene	0.31	J *	1.0	0.23	ug/L	1		8260B	Total/NA

Client Sample ID: MW-15-60D-020618 — Lab Sample ID: 240-91358-6

No Detections.

Client Sample ID: MW-15-61D-020618 — Lab Sample ID: 240-91358-7

No Detections.

Client Sample ID: MW-23-020618 — Lab Sample ID: 240-91358-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	33000		1000	300	ug/L	1000		8260B	Total/NA
Methylene Chloride	750	J B	5000	530	ug/L	1000		8260B	Total/NA
trans-1,2-Dichloroethene	1800		1000	290	ug/L	1000		8260B	Total/NA
Trichloroethene	11000		1000	330	ug/L	1000		8260B	Total/NA
Vinyl chloride	820	J	1000	450	ug/L	1000		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-91358-9

No Detections.

Client Sample ID: MW-28-020718 — Lab Sample ID: 240-91358-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.50	J	1.0	0.30	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	10		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	0.90	J	1.0	0.27	ug/L	1		8260B	Total/NA
1,1,1-Trichloroethane	25		1.0	0.23	ug/L	1		8260B	Total/NA
Trichloroethene	0.45	J	1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: MW-58-020718 — Lab Sample ID: 240-91358-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	9.6		2.0	0.24	ug/L	1		8260B SIM	Total/NA

Client Sample ID: MW-55-020718 — Lab Sample ID: 240-91358-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.96	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA

Client Sample ID: MW-54-020718 — Lab Sample ID: 240-91358-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.7		2.0	0.24	ug/L	1		8260B SIM	Total/NA
Vinyl chloride	1.2		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-53-020718 — Lab Sample ID: 240-91358-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.1	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA

Client Sample ID: MW-63-020718 — Lab Sample ID: 240-91358-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		1.0	0.30	ug/L	1		8260B	Total/NA
Styrene	0.23	J	1.0	0.23	ug/L	1		8260B	Total/NA

Client Sample ID: PW-16-01-020718 — Lab Sample ID: 240-91358-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.76	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	82		14	4.3	ug/L	14.28		8260B	Total/NA
Methylene Chloride	11	J B	71	7.6	ug/L	14.28		8260B	Total/NA
trans-1,2-Dichloroethene	5.4	J	14	4.1	ug/L	14.28		8260B	Total/NA
Vinyl chloride	160		14	6.4	ug/L	14.28		8260B	Total/NA

Client Sample ID: TW-16-01-020718 — Lab Sample ID: 240-91358-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	34		33	10	ug/L	33.33		8260B	Total/NA
Methylene Chloride	23	J B	170	18	ug/L	33.33		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TW-16-01-020718 (Continued)

Lab Sample ID: 240-91358-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	380		33	15	ug/L	33.33		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-65-020618
Date Collected: 02/06/18 17:02
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**3.4**		2.0	0.24	ug/L			02/13/18 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*63 - 125*		*02/13/18 20:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	3.5	ug/L			02/14/18 18:20	2
Benzene	2.0	U	2.0	0.56	ug/L			02/14/18 18:20	2
Bromodichloromethane	2.0	U	2.0	0.60	ug/L			02/14/18 18:20	2
Bromoform	2.0	U	2.0	0.86	ug/L			02/14/18 18:20	2
Bromomethane	2.0	U	2.0	0.84	ug/L			02/14/18 18:20	2
2-Butanone (MEK)	20	U	20	2.0	ug/L			02/14/18 18:20	2
Carbon disulfide	10	U	10	0.68	ug/L			02/14/18 18:20	2
Carbon tetrachloride	2.0	U	2.0	0.70	ug/L			02/14/18 18:20	2
Chlorobenzene	2.0	U	2.0	0.64	ug/L			02/14/18 18:20	2
Chloroethane	2.0	U	2.0	0.82	ug/L			02/14/18 18:20	2
Chloroform	2.0	U	2.0	0.62	ug/L			02/14/18 18:20	2
Chloromethane	2.0	U	2.0	0.86	ug/L			02/14/18 18:20	2
cis-1,2-Dichloroethene	**4.1**		2.0	0.60	ug/L			02/14/18 18:20	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.52	ug/L			02/14/18 18:20	2
Cyclohexane	2.0	U	2.0	0.88	ug/L			02/14/18 18:20	2
Dibromochloromethane	2.0	U	2.0	0.50	ug/L			02/14/18 18:20	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.94	ug/L			02/14/18 18:20	2
1,2-Dibromoethane	2.0	U	2.0	0.46	ug/L			02/14/18 18:20	2
1,2-Dichlorobenzene	2.0	U	2.0	0.52	ug/L			02/14/18 18:20	2
1,3-Dichlorobenzene	2.0	U	2.0	0.64	ug/L			02/14/18 18:20	2
1,4-Dichlorobenzene	2.0	U	2.0	0.46	ug/L			02/14/18 18:20	2
Dichlorodifluoromethane	2.0	U	2.0	1.0	ug/L			02/14/18 18:20	2
1,1-Dichloroethane	2.0	U	2.0	0.50	ug/L			02/14/18 18:20	2
1,2-Dichloroethane	2.0	U	2.0	0.60	ug/L			02/14/18 18:20	2
1,1-Dichloroethene	2.0	U	2.0	0.54	ug/L			02/14/18 18:20	2
1,2-Dichloropropane	2.0	U	2.0	0.60	ug/L			02/14/18 18:20	2
Diethyl ether	4.0	U	4.0	0.70	ug/L			02/14/18 18:20	2
Ethylbenzene	2.0	U	2.0	0.52	ug/L			02/14/18 18:20	2
2-Hexanone	20	U	20	2.5	ug/L			02/14/18 18:20	2
Isopropylbenzene	2.0	U	2.0	0.42	ug/L			02/14/18 18:20	2
Methyl acetate	20	U	20	2.9	ug/L			02/14/18 18:20	2
Methylcyclohexane	2.0	U	2.0	0.90	ug/L			02/14/18 18:20	2
Methylene Chloride	**1.5**	**J B**	10	1.1	ug/L			02/14/18 18:20	2
4-Methyl-2-pentanone (MIBK)	20	U	20	1.4	ug/L			02/14/18 18:20	2
Methyl tert-butyl ether	2.0	U	2.0	0.54	ug/L			02/14/18 18:20	2
Styrene	2.0	U	2.0	0.46	ug/L			02/14/18 18:20	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.64	ug/L			02/14/18 18:20	2
Tetrachloroethene	2.0	U	2.0	0.60	ug/L			02/14/18 18:20	2
Toluene	2.0	U	2.0	0.46	ug/L			02/14/18 18:20	2
trans-1,2-Dichloroethene	2.0	U	2.0	0.58	ug/L			02/14/18 18:20	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.62	ug/L			02/14/18 18:20	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.54	ug/L			02/14/18 18:20	2
1,1,1-Trichloroethane	2.0	U	2.0	0.46	ug/L			02/14/18 18:20	2

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-65-020618
Date Collected: 02/06/18 17:02
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	2.0	U	2.0	0.68	ug/L			02/14/18 18:20	2
Trichloroethene	2.0	U	2.0	0.66	ug/L			02/14/18 18:20	2
Trichlorofluoromethane	2.0	U	2.0	1.0	ug/L			02/14/18 18:20	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.82	ug/L			02/14/18 18:20	2
1,2,3-Trimethylbenzene	10	U	10	0.44	ug/L			02/14/18 18:20	2
1,2,4-Trimethylbenzene	2.0	U	2.0	0.48	ug/L			02/14/18 18:20	2
1,3,5-Trimethylbenzene	2.0	U	2.0	0.48	ug/L			02/14/18 18:20	2
Vinyl chloride	**36**		2.0	0.90	ug/L			02/14/18 18:20	2
Xylenes, Total	4.0	U	4.0	0.48	ug/L			02/14/18 18:20	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*69 - 120*		*02/14/18 18:20*	*2*
Dibromofluoromethane (Surr)	*95*		*69 - 124*		*02/14/18 18:20*	*2*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*02/14/18 18:20*	*2*
Toluene-d8 (Surr)	*95*		*73 - 120*		*02/14/18 18:20*	*2*

Client Sample ID: MW-44-020618
Date Collected: 02/06/18 16:07
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**9.0**		2.0	0.24	ug/L			02/13/18 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*63 - 125*		*02/13/18 20:54*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	67	U	67	12	ug/L			02/15/18 15:12	6.67
Benzene	6.7	U	6.7	1.9	ug/L			02/15/18 15:12	6.67
Bromodichloromethane	6.7	U	6.7	2.0	ug/L			02/15/18 15:12	6.67
Bromoform	6.7	U	6.7	2.9	ug/L			02/15/18 15:12	6.67
Bromomethane	6.7	U	6.7	2.8	ug/L			02/15/18 15:12	6.67
2-Butanone (MEK)	67	U	67	6.8	ug/L			02/15/18 15:12	6.67
Carbon disulfide	33	U	33	2.3	ug/L			02/15/18 15:12	6.67
Carbon tetrachloride	6.7	U	6.7	2.3	ug/L			02/15/18 15:12	6.67
Chlorobenzene	6.7	U	6.7	2.1	ug/L			02/15/18 15:12	6.67
Chloroethane	6.7	U	6.7	2.7	ug/L			02/15/18 15:12	6.67
Chloroform	6.7	U	6.7	2.1	ug/L			02/15/18 15:12	6.67
Chloromethane	6.7	U	6.7	2.9	ug/L			02/15/18 15:12	6.67
cis-1,2-Dichloroethene	6.7	U	6.7	2.0	ug/L			02/15/18 15:12	6.67
cis-1,3-Dichloropropene	6.7	U	6.7	1.7	ug/L			02/15/18 15:12	6.67
Cyclohexane	6.7	U	6.7	2.9	ug/L			02/15/18 15:12	6.67
Dibromochloromethane	6.7	U	6.7	1.7	ug/L			02/15/18 15:12	6.67
1,2-Dibromo-3-Chloropropane	6.7	U	6.7	3.1	ug/L			02/15/18 15:12	6.67
1,2-Dibromoethane	6.7	U	6.7	1.5	ug/L			02/15/18 15:12	6.67
1,2-Dichlorobenzene	6.7	U	6.7	1.7	ug/L			02/15/18 15:12	6.67
1,3-Dichlorobenzene	6.7	U	6.7	2.1	ug/L			02/15/18 15:12	6.67
1,4-Dichlorobenzene	6.7	U	6.7	1.5	ug/L			02/15/18 15:12	6.67
Dichlorodifluoromethane	6.7	U	6.7	3.3	ug/L			02/15/18 15:12	6.67
1,1-Dichloroethane	6.7	U	6.7	1.7	ug/L			02/15/18 15:12	6.67
1,2-Dichloroethane	6.7	U	6.7	2.0	ug/L			02/15/18 15:12	6.67
1,1-Dichloroethene	6.7	U	6.7	1.8	ug/L			02/15/18 15:12	6.67
1,2-Dichloropropane	6.7	U	6.7	2.0	ug/L			02/15/18 15:12	6.67
Diethyl ether	13	U	13	2.3	ug/L			02/15/18 15:12	6.67
Ethylbenzene	6.7	U	6.7	1.7	ug/L			02/15/18 15:12	6.67
2-Hexanone	67	U	67	8.2	ug/L			02/15/18 15:12	6.67
Isopropylbenzene	6.7	U	6.7	1.4	ug/L			02/15/18 15:12	6.67
Methyl acetate	67	U	67	9.5	ug/L			02/15/18 15:12	6.67
Methylcyclohexane	6.7	U	6.7	3.0	ug/L			02/15/18 15:12	6.67
Methylene Chloride	**4.1**	**J B**	33	3.5	ug/L			02/15/18 15:12	6.67
4-Methyl-2-pentanone (MIBK)	67	U	67	4.7	ug/L			02/15/18 15:12	6.67
Methyl tert-butyl ether	6.7	U	6.7	1.8	ug/L			02/15/18 15:12	6.67
Styrene	6.7	U	6.7	1.5	ug/L			02/15/18 15:12	6.67
1,1,2,2-Tetrachloroethane	6.7	U	6.7	2.1	ug/L			02/15/18 15:12	6.67
Tetrachloroethene	6.7	U	6.7	2.0	ug/L			02/15/18 15:12	6.67
Toluene	6.7	U	6.7	1.5	ug/L			02/15/18 15:12	6.67
trans-1,2-Dichloroethene	6.7	U	6.7	1.9	ug/L			02/15/18 15:12	6.67
trans-1,3-Dichloropropene	6.7	U	6.7	2.1	ug/L			02/15/18 15:12	6.67
1,2,4-Trichlorobenzene	6.7	U	6.7	1.8	ug/L			02/15/18 15:12	6.67
1,1,1-Trichloroethane	6.7	U	6.7	1.5	ug/L			02/15/18 15:12	6.67

Client Sample ID: MW-44-020618
Date Collected: 02/06/18 16:07
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	6.7	U	6.7	2.3	ug/L			02/15/18 15:12	6.67
Trichloroethene	6.7	U	6.7	2.2	ug/L			02/15/18 15:12	6.67
Trichlorofluoromethane	6.7	U	6.7	3.3	ug/L			02/15/18 15:12	6.67
1,1,2-Trichloro-1,2,2-trifluoroethane	6.7	U	6.7	2.7	ug/L			02/15/18 15:12	6.67
1,2,3-Trimethylbenzene	33	U	33	1.5	ug/L			02/15/18 15:12	6.67
1,2,4-Trimethylbenzene	6.7	U	6.7	1.6	ug/L			02/15/18 15:12	6.67
1,3,5-Trimethylbenzene	6.7	U	6.7	1.6	ug/L			02/15/18 15:12	6.67
Vinyl chloride	**210**		6.7	3.0	ug/L			02/15/18 15:12	6.67
Xylenes, Total	13	U	13	1.6	ug/L			02/15/18 15:12	6.67

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*		*02/15/18 15:12*	*6.67*
Dibromofluoromethane (Surr)	*101*		*69 - 124*		*02/15/18 15:12*	*6.67*
1,2-Dichloroethane-d4 (Surr)	*94*		*61 - 138*		*02/15/18 15:12*	*6.67*
Toluene-d8 (Surr)	*98*		*73 - 120*		*02/15/18 15:12*	*6.67*

Client Sample ID: MW-22-020618

Date Collected: 02/06/18 15:02
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**22**		2.0	0.24	ug/L			02/13/18 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*63 - 125*		*02/13/18 21:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	1400	U	1400	250	ug/L			02/14/18 19:03	142.86
Benzene	140	U	140	40	ug/L			02/14/18 19:03	142.86
Bromodichloromethane	140	U	140	43	ug/L			02/14/18 19:03	142.86
Bromoform	140	U	140	61	ug/L			02/14/18 19:03	142.86
Bromomethane	140	U	140	60	ug/L			02/14/18 19:03	142.86
2-Butanone (MEK)	1400	U	1400	150	ug/L			02/14/18 19:03	142.86
Carbon disulfide	710	U	710	49	ug/L			02/14/18 19:03	142.86
Carbon tetrachloride	140	U	140	50	ug/L			02/14/18 19:03	142.86
Chlorobenzene	140	U	140	46	ug/L			02/14/18 19:03	142.86
Chloroethane	140	U	140	59	ug/L			02/14/18 19:03	142.86
Chloroform	140	U	140	44	ug/L			02/14/18 19:03	142.86
Chloromethane	140	U	140	61	ug/L			02/14/18 19:03	142.86
cis-1,2-Dichloroethene	**200**		140	43	ug/L			02/14/18 19:03	142.86
cis-1,3-Dichloropropene	140	U	140	37	ug/L			02/14/18 19:03	142.86
Cyclohexane	140	U	140	63	ug/L			02/14/18 19:03	142.86
Dibromochloromethane	140	U	140	36	ug/L			02/14/18 19:03	142.86
1,2-Dibromo-3-Chloropropane	140	U	140	67	ug/L			02/14/18 19:03	142.86
1,2-Dibromoethane	140	U	140	33	ug/L			02/14/18 19:03	142.86
1,2-Dichlorobenzene	140	U	140	37	ug/L			02/14/18 19:03	142.86
1,3-Dichlorobenzene	140	U	140	46	ug/L			02/14/18 19:03	142.86
1,4-Dichlorobenzene	140	U	140	33	ug/L			02/14/18 19:03	142.86
Dichlorodifluoromethane	140	U	140	71	ug/L			02/14/18 19:03	142.86
1,1-Dichloroethane	140	U	140	36	ug/L			02/14/18 19:03	142.86
1,2-Dichloroethane	140	U	140	43	ug/L			02/14/18 19:03	142.86
1,1-Dichloroethene	140	U	140	39	ug/L			02/14/18 19:03	142.86
1,2-Dichloropropane	140	U	140	43	ug/L			02/14/18 19:03	142.86
Diethyl ether	290	U	290	50	ug/L			02/14/18 19:03	142.86
Ethylbenzene	140	U	140	37	ug/L			02/14/18 19:03	142.86
2-Hexanone	1400	U	1400	180	ug/L			02/14/18 19:03	142.86
Isopropylbenzene	140	U	140	30	ug/L			02/14/18 19:03	142.86
Methyl acetate	1400	U	1400	200	ug/L			02/14/18 19:03	142.86
Methylcyclohexane	140	U	140	64	ug/L			02/14/18 19:03	142.86
Methylene Chloride	**120**	**J B**	710	76	ug/L			02/14/18 19:03	142.86
4-Methyl-2-pentanone (MIBK)	1400	U	1400	100	ug/L			02/14/18 19:03	142.86
Methyl tert-butyl ether	140	U	140	39	ug/L			02/14/18 19:03	142.86
Styrene	140	U	140	33	ug/L			02/14/18 19:03	142.86
1,1,2,2-Tetrachloroethane	140	U	140	46	ug/L			02/14/18 19:03	142.86
Tetrachloroethene	140	U	140	43	ug/L			02/14/18 19:03	142.86
Toluene	140	U	140	33	ug/L			02/14/18 19:03	142.86
trans-1,2-Dichloroethene	140	U	140	41	ug/L			02/14/18 19:03	142.86
trans-1,3-Dichloropropene	140	U	140	44	ug/L			02/14/18 19:03	142.86
1,2,4-Trichlorobenzene	140	U	140	39	ug/L			02/14/18 19:03	142.86
1,1,1-Trichloroethane	140	U	140	33	ug/L			02/14/18 19:03	142.86

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-22-020618
Date Collected: 02/06/18 15:02
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	140	U	140	49	ug/L			02/14/18 19:03	142.86
Trichloroethene	140	U	140	47	ug/L			02/14/18 19:03	142.86
Trichlorofluoromethane	140	U	140	71	ug/L			02/14/18 19:03	142.86
1,1,2-Trichloro-1,2,2-trifluoroethane	140	U	140	59	ug/L			02/14/18 19:03	142.86
1,2,3-Trimethylbenzene	710	U	710	31	ug/L			02/14/18 19:03	142.86
1,2,4-Trimethylbenzene	140	U	140	34	ug/L			02/14/18 19:03	142.86
1,3,5-Trimethylbenzene	140	U	140	34	ug/L			02/14/18 19:03	142.86
Vinyl chloride	**1500**		140	64	ug/L			02/14/18 19:03	142.86
Xylenes, Total	290	U	290	34	ug/L			02/14/18 19:03	142.86

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*69 - 120*		*02/14/18 19:03*	*142.86*
Dibromofluoromethane (Surr)	*99*		*69 - 124*		*02/14/18 19:03*	*142.86*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*		*02/14/18 19:03*	*142.86*
Toluene-d8 (Surr)	*95*		*73 - 120*		*02/14/18 19:03*	*142.86*

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-62-020618
Date Collected: 02/06/18 12:56
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.1		2.0	0.24	ug/L			02/13/18 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*63 - 125*		*02/13/18 21:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/13/18 19:31	1
Benzene	1.0	U	1.0	0.28	ug/L			02/13/18 19:31	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/13/18 19:31	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/13/18 19:31	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/13/18 19:31	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/13/18 19:31	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/13/18 19:31	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/13/18 19:31	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 19:31	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/13/18 19:31	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/13/18 19:31	1
Chloromethane	1.0	U *	1.0	0.43	ug/L			02/13/18 19:31	1
cis-1,2-Dichloroethene	0.30	J	1.0	0.30	ug/L			02/13/18 19:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/13/18 19:31	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/13/18 19:31	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/13/18 19:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/13/18 19:31	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/13/18 19:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/13/18 19:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 19:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/13/18 19:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 19:31	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/13/18 19:31	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/13/18 19:31	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/13/18 19:31	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/13/18 19:31	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/13/18 19:31	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/18 19:31	1
2-Hexanone	10	U	10	1.2	ug/L			02/13/18 19:31	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/13/18 19:31	1
Methyl acetate	10	U	10	1.4	ug/L			02/13/18 19:31	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/13/18 19:31	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/13/18 19:31	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/13/18 19:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/13/18 19:31	1
Styrene	1.0	U	1.0	0.23	ug/L			02/13/18 19:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/13/18 19:31	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 19:31	1
Toluene	1.0	U *	1.0	0.23	ug/L			02/13/18 19:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/18 19:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/13/18 19:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/13/18 19:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/18 19:31	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-62-020618
Date Collected: 02/06/18 12:56
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/13/18 19:31	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/13/18 19:31	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 19:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/13/18 19:31	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/13/18 19:31	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 19:31	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 19:31	1
Vinyl chloride	**1.3**		1.0	0.45	ug/L			02/13/18 19:31	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/13/18 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*69 - 120*		*02/13/18 19:31*	*1*
Dibromofluoromethane (Surr)	*99*		*69 - 124*		*02/13/18 19:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*61 - 138*		*02/13/18 19:31*	*1*
Toluene-d8 (Surr)	*108*		*73 - 120*		*02/13/18 19:31*	*1*

Client Sample ID: MW-15-59D-020618
Date Collected: 02/06/18 12:12
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			02/13/18 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*63 - 125*		*02/13/18 22:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/13/18 19:54	1
Benzene	1.0	U	1.0	0.28	ug/L			02/13/18 19:54	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/13/18 19:54	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/13/18 19:54	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/13/18 19:54	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/13/18 19:54	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/13/18 19:54	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/13/18 19:54	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 19:54	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/13/18 19:54	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/13/18 19:54	1
Chloromethane	1.0	U *	1.0	0.43	ug/L			02/13/18 19:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 19:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/13/18 19:54	1
Cyclohexane	**0.76**	**J**	1.0	0.44	ug/L			02/13/18 19:54	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/13/18 19:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/13/18 19:54	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/13/18 19:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/13/18 19:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 19:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/13/18 19:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 19:54	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/13/18 19:54	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/13/18 19:54	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/13/18 19:54	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/13/18 19:54	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/13/18 19:54	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/18 19:54	1
2-Hexanone	10	U	10	1.2	ug/L			02/13/18 19:54	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/13/18 19:54	1
Methyl acetate	10	U	10	1.4	ug/L			02/13/18 19:54	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/13/18 19:54	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/13/18 19:54	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/13/18 19:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/13/18 19:54	1
Styrene	1.0	U	1.0	0.23	ug/L			02/13/18 19:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/13/18 19:54	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 19:54	1
Toluene	**0.31**	**J ***	1.0	0.23	ug/L			02/13/18 19:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/18 19:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/13/18 19:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/13/18 19:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/18 19:54	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-15-59D-020618
Date Collected: 02/06/18 12:12
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/13/18 19:54	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/13/18 19:54	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 19:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/13/18 19:54	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/13/18 19:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 19:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 19:54	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/13/18 19:54	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/13/18 19:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*69 - 120*		*02/13/18 19:54*	*1*
Dibromofluoromethane (Surr)	*100*		*69 - 124*		*02/13/18 19:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*61 - 138*		*02/13/18 19:54*	*1*
Toluene-d8 (Surr)	*106*		*73 - 120*		*02/13/18 19:54*	*1*

Client Sample ID: MW-15-60D-020618
Date Collected: 02/06/18 10:27
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			02/14/18 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*63 - 125*		*02/14/18 17:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/13/18 20:16	1
Benzene	1.0	U	1.0	0.28	ug/L			02/13/18 20:16	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/13/18 20:16	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/13/18 20:16	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/13/18 20:16	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/13/18 20:16	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/13/18 20:16	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/13/18 20:16	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 20:16	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/13/18 20:16	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/13/18 20:16	1
Chloromethane	1.0	U *	1.0	0.43	ug/L			02/13/18 20:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 20:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/13/18 20:16	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/13/18 20:16	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/13/18 20:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/13/18 20:16	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/13/18 20:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/13/18 20:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 20:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/13/18 20:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 20:16	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/13/18 20:16	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/13/18 20:16	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/13/18 20:16	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/13/18 20:16	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/13/18 20:16	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/18 20:16	1
2-Hexanone	10	U	10	1.2	ug/L			02/13/18 20:16	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/13/18 20:16	1
Methyl acetate	10	U	10	1.4	ug/L			02/13/18 20:16	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/13/18 20:16	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/13/18 20:16	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/13/18 20:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/13/18 20:16	1
Styrene	1.0	U	1.0	0.23	ug/L			02/13/18 20:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/13/18 20:16	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 20:16	1
Toluene	1.0	U *	1.0	0.23	ug/L			02/13/18 20:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/18 20:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/13/18 20:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/13/18 20:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/18 20:16	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-15-60D-020618
Date Collected: 02/06/18 10:27
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/13/18 20:16	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/13/18 20:16	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 20:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/13/18 20:16	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/13/18 20:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 20:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 20:16	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/13/18 20:16	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/13/18 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*69 - 120*		*02/13/18 20:16*	*1*
Dibromofluoromethane (Surr)	*103*		*69 - 124*		*02/13/18 20:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*61 - 138*		*02/13/18 20:16*	*1*
Toluene-d8 (Surr)	*106*		*73 - 120*		*02/13/18 20:16*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-15-61D-020618
Date Collected: 02/06/18 14:32
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			02/14/18 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*63 - 125*		*02/14/18 18:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/13/18 20:39	1
Benzene	1.0	U	1.0	0.28	ug/L			02/13/18 20:39	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/13/18 20:39	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/13/18 20:39	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/13/18 20:39	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/13/18 20:39	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/13/18 20:39	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/13/18 20:39	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 20:39	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/13/18 20:39	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/13/18 20:39	1
Chloromethane	1.0	U *	1.0	0.43	ug/L			02/13/18 20:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 20:39	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/13/18 20:39	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/13/18 20:39	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/13/18 20:39	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/13/18 20:39	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/13/18 20:39	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/13/18 20:39	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 20:39	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/13/18 20:39	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 20:39	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/13/18 20:39	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/13/18 20:39	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/13/18 20:39	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/13/18 20:39	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/13/18 20:39	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/18 20:39	1
2-Hexanone	10	U	10	1.2	ug/L			02/13/18 20:39	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/13/18 20:39	1
Methyl acetate	10	U	10	1.4	ug/L			02/13/18 20:39	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/13/18 20:39	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/13/18 20:39	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/13/18 20:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/13/18 20:39	1
Styrene	1.0	U	1.0	0.23	ug/L			02/13/18 20:39	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/13/18 20:39	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 20:39	1
Toluene	1.0	U *	1.0	0.23	ug/L			02/13/18 20:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/18 20:39	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/13/18 20:39	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/13/18 20:39	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/18 20:39	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-15-61D-020618
Date Collected: 02/06/18 14:32
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/13/18 20:39	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/13/18 20:39	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 20:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/13/18 20:39	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/13/18 20:39	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 20:39	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 20:39	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/13/18 20:39	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/13/18 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*69 - 120*		*02/13/18 20:39*	*1*
Dibromofluoromethane (Surr)	*99*		*69 - 124*		*02/13/18 20:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*61 - 138*		*02/13/18 20:39*	*1*
Toluene-d8 (Surr)	*109*		*73 - 120*		*02/13/18 20:39*	*1*

Client Sample ID: MW-23-020618
Date Collected: 02/06/18 16:02
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	20	U	20	2.4	ug/L			02/14/18 18:42	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 125*		*02/14/18 18:42*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10000	U	10000	1800	ug/L			02/15/18 15:33	1000
Benzene	1000	U	1000	280	ug/L			02/15/18 15:33	1000
Bromodichloromethane	1000	U	1000	300	ug/L			02/15/18 15:33	1000
Bromoform	1000	U	1000	430	ug/L			02/15/18 15:33	1000
Bromomethane	1000	U	1000	420	ug/L			02/15/18 15:33	1000
2-Butanone (MEK)	10000	U	10000	1000	ug/L			02/15/18 15:33	1000
Carbon disulfide	5000	U	5000	340	ug/L			02/15/18 15:33	1000
Carbon tetrachloride	1000	U	1000	350	ug/L			02/15/18 15:33	1000
Chlorobenzene	1000	U	1000	320	ug/L			02/15/18 15:33	1000
Chloroethane	1000	U	1000	410	ug/L			02/15/18 15:33	1000
Chloroform	1000	U	1000	310	ug/L			02/15/18 15:33	1000
Chloromethane	1000	U	1000	430	ug/L			02/15/18 15:33	1000
cis-1,2-Dichloroethene	**33000**		1000	300	ug/L			02/15/18 15:33	1000
cis-1,3-Dichloropropene	1000	U	1000	260	ug/L			02/15/18 15:33	1000
Cyclohexane	1000	U	1000	440	ug/L			02/15/18 15:33	1000
Dibromochloromethane	1000	U	1000	250	ug/L			02/15/18 15:33	1000
1,2-Dibromo-3-Chloropropane	1000	U	1000	470	ug/L			02/15/18 15:33	1000
1,2-Dibromoethane	1000	U	1000	230	ug/L			02/15/18 15:33	1000
1,2-Dichlorobenzene	1000	U	1000	260	ug/L			02/15/18 15:33	1000
1,3-Dichlorobenzene	1000	U	1000	320	ug/L			02/15/18 15:33	1000
1,4-Dichlorobenzene	1000	U	1000	230	ug/L			02/15/18 15:33	1000
Dichlorodifluoromethane	1000	U	1000	500	ug/L			02/15/18 15:33	1000
1,1-Dichloroethane	1000	U	1000	250	ug/L			02/15/18 15:33	1000
1,2-Dichloroethane	1000	U	1000	300	ug/L			02/15/18 15:33	1000
1,1-Dichloroethene	1000	U	1000	270	ug/L			02/15/18 15:33	1000
1,2-Dichloropropane	1000	U	1000	300	ug/L			02/15/18 15:33	1000
Diethyl ether	2000	U	2000	350	ug/L			02/15/18 15:33	1000
Ethylbenzene	1000	U	1000	260	ug/L			02/15/18 15:33	1000
2-Hexanone	10000	U	10000	1200	ug/L			02/15/18 15:33	1000
Isopropylbenzene	1000	U	1000	210	ug/L			02/15/18 15:33	1000
Methyl acetate	10000	U	10000	1400	ug/L			02/15/18 15:33	1000
Methylcyclohexane	1000	U	1000	450	ug/L			02/15/18 15:33	1000
Methylene Chloride	**750**	**J B**	5000	530	ug/L			02/15/18 15:33	1000
4-Methyl-2-pentanone (MIBK)	10000	U	10000	710	ug/L			02/15/18 15:33	1000
Methyl tert-butyl ether	1000	U	1000	270	ug/L			02/15/18 15:33	1000
Styrene	1000	U	1000	230	ug/L			02/15/18 15:33	1000
1,1,2,2-Tetrachloroethane	1000	U	1000	320	ug/L			02/15/18 15:33	1000
Tetrachloroethene	1000	U	1000	300	ug/L			02/15/18 15:33	1000
Toluene	1000	U	1000	230	ug/L			02/15/18 15:33	1000
trans-1,2-Dichloroethene	**1800**		1000	290	ug/L			02/15/18 15:33	1000
trans-1,3-Dichloropropene	1000	U	1000	310	ug/L			02/15/18 15:33	1000
1,2,4-Trichlorobenzene	1000	U	1000	270	ug/L			02/15/18 15:33	1000
1,1,1-Trichloroethane	1000	U	1000	230	ug/L			02/15/18 15:33	1000

Client Sample ID: MW-23-020618
Date Collected: 02/06/18 16:02
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1000	U	1000	340	ug/L			02/15/18 15:33	1000
Trichloroethene	**11000**		1000	330	ug/L			02/15/18 15:33	1000
Trichlorofluoromethane	1000	U	1000	500	ug/L			02/15/18 15:33	1000
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	U	1000	410	ug/L			02/15/18 15:33	1000
1,2,3-Trimethylbenzene	5000	U	5000	220	ug/L			02/15/18 15:33	1000
1,2,4-Trimethylbenzene	1000	U	1000	240	ug/L			02/15/18 15:33	1000
1,3,5-Trimethylbenzene	1000	U	1000	240	ug/L			02/15/18 15:33	1000
Vinyl chloride	**820**	**J**	1000	450	ug/L			02/15/18 15:33	1000
Xylenes, Total	2000	U	2000	240	ug/L			02/15/18 15:33	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*69 - 120*		*02/15/18 15:33*	*1000*
Dibromofluoromethane (Surr)	*99*		*69 - 124*		*02/15/18 15:33*	*1000*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*02/15/18 15:33*	*1000*
Toluene-d8 (Surr)	*97*		*73 - 120*		*02/15/18 15:33*	*1000*

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: TRIP BLANK
Date Collected: 02/06/18 00:00
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/14/18 19:47	1
Benzene	1.0	U	1.0	0.28	ug/L			02/14/18 19:47	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/14/18 19:47	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/14/18 19:47	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/14/18 19:47	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/14/18 19:47	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/14/18 19:47	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/14/18 19:47	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 19:47	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/14/18 19:47	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/14/18 19:47	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/14/18 19:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 19:47	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/14/18 19:47	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/14/18 19:47	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/14/18 19:47	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/14/18 19:47	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/14/18 19:47	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/14/18 19:47	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 19:47	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/14/18 19:47	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 19:47	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/14/18 19:47	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/14/18 19:47	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/14/18 19:47	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/14/18 19:47	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/14/18 19:47	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/14/18 19:47	1
2-Hexanone	10	U	10	1.2	ug/L			02/14/18 19:47	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/14/18 19:47	1
Methyl acetate	10	U	10	1.4	ug/L			02/14/18 19:47	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/14/18 19:47	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/14/18 19:47	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/14/18 19:47	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/14/18 19:47	1
Styrene	1.0	U	1.0	0.23	ug/L			02/14/18 19:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/14/18 19:47	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 19:47	1
Toluene	1.0	U	1.0	0.23	ug/L			02/14/18 19:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/14/18 19:47	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/14/18 19:47	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/14/18 19:47	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/14/18 19:47	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/14/18 19:47	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/14/18 19:47	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 19:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/14/18 19:47	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/14/18 19:47	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 19:47	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: TRIP BLANK
Date Collected: 02/06/18 00:00
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 19:47	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/14/18 19:47	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/14/18 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*69 - 120*		*02/14/18 19:47*	*1*
Dibromofluoromethane (Surr)	*104*		*69 - 124*		*02/14/18 19:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*61 - 138*		*02/14/18 19:47*	*1*
Toluene-d8 (Surr)	*94*		*73 - 120*		*02/14/18 19:47*	*1*

Client Sample ID: MW-28-020718
Date Collected: 02/07/18 12:57
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			02/14/18 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*63 - 125*		*02/14/18 19:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/14/18 20:09	1
Benzene	1.0	U	1.0	0.28	ug/L			02/14/18 20:09	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/14/18 20:09	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/14/18 20:09	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/14/18 20:09	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/14/18 20:09	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/14/18 20:09	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/14/18 20:09	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 20:09	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/14/18 20:09	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/14/18 20:09	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/14/18 20:09	1
cis-1,2-Dichloroethene	**0.50**	**J**	1.0	0.30	ug/L			02/14/18 20:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/14/18 20:09	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/14/18 20:09	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/14/18 20:09	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/14/18 20:09	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/14/18 20:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/14/18 20:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 20:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/14/18 20:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 20:09	1
1,1-Dichloroethane	**10**		1.0	0.25	ug/L			02/14/18 20:09	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/14/18 20:09	1
1,1-Dichloroethene	**0.90**	**J**	1.0	0.27	ug/L			02/14/18 20:09	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/14/18 20:09	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/14/18 20:09	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/14/18 20:09	1
2-Hexanone	10	U	10	1.2	ug/L			02/14/18 20:09	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/14/18 20:09	1
Methyl acetate	10	U	10	1.4	ug/L			02/14/18 20:09	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/14/18 20:09	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/14/18 20:09	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/14/18 20:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/14/18 20:09	1
Styrene	1.0	U	1.0	0.23	ug/L			02/14/18 20:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/14/18 20:09	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 20:09	1
Toluene	1.0	U	1.0	0.23	ug/L			02/14/18 20:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/14/18 20:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/14/18 20:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/14/18 20:09	1
1,1,1-Trichloroethane	**25**		1.0	0.23	ug/L			02/14/18 20:09	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-28-020718
Date Collected: 02/07/18 12:57
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/14/18 20:09	1
Trichloroethene	**0.45**	**J**	1.0	0.33	ug/L			02/14/18 20:09	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 20:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/14/18 20:09	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/14/18 20:09	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 20:09	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 20:09	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/14/18 20:09	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/14/18 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*69 - 120*		*02/14/18 20:09*	*1*
Dibromofluoromethane (Surr)	*94*		*69 - 124*		*02/14/18 20:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*61 - 138*		*02/14/18 20:09*	*1*
Toluene-d8 (Surr)	*98*		*73 - 120*		*02/14/18 20:09*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-58-020718
Date Collected: 02/07/18 16:57
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	9.6		2.0	0.24	ug/L			02/14/18 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*63 - 125*		*02/14/18 19:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/14/18 20:32	1
Benzene	1.0	U	1.0	0.28	ug/L			02/14/18 20:32	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/14/18 20:32	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/14/18 20:32	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/14/18 20:32	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/14/18 20:32	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/14/18 20:32	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/14/18 20:32	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 20:32	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/14/18 20:32	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/14/18 20:32	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/14/18 20:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 20:32	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/14/18 20:32	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/14/18 20:32	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/14/18 20:32	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/14/18 20:32	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/14/18 20:32	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/14/18 20:32	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 20:32	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/14/18 20:32	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 20:32	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/14/18 20:32	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/14/18 20:32	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/14/18 20:32	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/14/18 20:32	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/14/18 20:32	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/14/18 20:32	1
2-Hexanone	10	U	10	1.2	ug/L			02/14/18 20:32	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/14/18 20:32	1
Methyl acetate	10	U	10	1.4	ug/L			02/14/18 20:32	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/14/18 20:32	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/14/18 20:32	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/14/18 20:32	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/14/18 20:32	1
Styrene	1.0	U	1.0	0.23	ug/L			02/14/18 20:32	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/14/18 20:32	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 20:32	1
Toluene	1.0	U	1.0	0.23	ug/L			02/14/18 20:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/14/18 20:32	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/14/18 20:32	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/14/18 20:32	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/14/18 20:32	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-58-020718
Date Collected: 02/07/18 16:57
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/14/18 20:32	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/14/18 20:32	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 20:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/14/18 20:32	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/14/18 20:32	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 20:32	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 20:32	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/14/18 20:32	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/14/18 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*69 - 120*		*02/14/18 20:32*	*1*
Dibromofluoromethane (Surr)	*91*		*69 - 124*		*02/14/18 20:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*61 - 138*		*02/14/18 20:32*	*1*
Toluene-d8 (Surr)	*93*		*73 - 120*		*02/14/18 20:32*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-55-020718
Date Collected: 02/07/18 13:52
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.96	J	2.0	0.24	ug/L			02/14/18 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*63 - 125*		*02/14/18 20:00*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/14/18 20:54	1
Benzene	1.0	U	1.0	0.28	ug/L			02/14/18 20:54	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/14/18 20:54	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/14/18 20:54	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/14/18 20:54	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/14/18 20:54	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/14/18 20:54	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/14/18 20:54	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 20:54	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/14/18 20:54	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/14/18 20:54	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/14/18 20:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 20:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/14/18 20:54	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/14/18 20:54	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/14/18 20:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/14/18 20:54	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/14/18 20:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/14/18 20:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 20:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/14/18 20:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 20:54	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/14/18 20:54	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/14/18 20:54	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/14/18 20:54	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/14/18 20:54	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/14/18 20:54	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/14/18 20:54	1
2-Hexanone	10	U	10	1.2	ug/L			02/14/18 20:54	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/14/18 20:54	1
Methyl acetate	10	U	10	1.4	ug/L			02/14/18 20:54	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/14/18 20:54	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/14/18 20:54	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/14/18 20:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/14/18 20:54	1
Styrene	1.0	U	1.0	0.23	ug/L			02/14/18 20:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/14/18 20:54	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 20:54	1
Toluene	1.0	U	1.0	0.23	ug/L			02/14/18 20:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/14/18 20:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/14/18 20:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/14/18 20:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/14/18 20:54	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-55-020718
Date Collected: 02/07/18 13:52
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/14/18 20:54	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/14/18 20:54	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 20:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/14/18 20:54	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/14/18 20:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 20:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 20:54	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/14/18 20:54	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/14/18 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*69 - 120*		*02/14/18 20:54*	*1*
Dibromofluoromethane (Surr)	*100*		*69 - 124*		*02/14/18 20:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*02/14/18 20:54*	*1*
Toluene-d8 (Surr)	*96*		*73 - 120*		*02/14/18 20:54*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-54-020718
Date Collected: 02/07/18 15:07
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.7		2.0	0.24	ug/L			02/14/18 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*63 - 125*		*02/14/18 20:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/14/18 21:16	1
Benzene	1.0	U	1.0	0.28	ug/L			02/14/18 21:16	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/14/18 21:16	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/14/18 21:16	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/14/18 21:16	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/14/18 21:16	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/14/18 21:16	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/14/18 21:16	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 21:16	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/14/18 21:16	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/14/18 21:16	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/14/18 21:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 21:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/14/18 21:16	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/14/18 21:16	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/14/18 21:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/14/18 21:16	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/14/18 21:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/14/18 21:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 21:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/14/18 21:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 21:16	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/14/18 21:16	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/14/18 21:16	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/14/18 21:16	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/14/18 21:16	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/14/18 21:16	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/14/18 21:16	1
2-Hexanone	10	U	10	1.2	ug/L			02/14/18 21:16	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/14/18 21:16	1
Methyl acetate	10	U	10	1.4	ug/L			02/14/18 21:16	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/14/18 21:16	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/14/18 21:16	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/14/18 21:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/14/18 21:16	1
Styrene	1.0	U	1.0	0.23	ug/L			02/14/18 21:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/14/18 21:16	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 21:16	1
Toluene	1.0	U	1.0	0.23	ug/L			02/14/18 21:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/14/18 21:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/14/18 21:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/14/18 21:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/14/18 21:16	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-54-020718
Date Collected: 02/07/18 15:07
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/14/18 21:16	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/14/18 21:16	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 21:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/14/18 21:16	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/14/18 21:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 21:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 21:16	1
Vinyl chloride	**1.2**		1.0	0.45	ug/L			02/14/18 21:16	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/14/18 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*69 - 120*		*02/14/18 21:16*	*1*
Dibromofluoromethane (Surr)	*97*		*69 - 124*		*02/14/18 21:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*02/14/18 21:16*	*1*
Toluene-d8 (Surr)	*93*		*73 - 120*		*02/14/18 21:16*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-53-020718
Date Collected: 02/07/18 16:02
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-14
Matrix: Water

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	0.24	ug/L			02/14/18 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*63 - 125*		*02/14/18 20:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/14/18 21:37	1
Benzene	1.0	U	1.0	0.28	ug/L			02/14/18 21:37	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/14/18 21:37	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/14/18 21:37	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/14/18 21:37	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/14/18 21:37	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/14/18 21:37	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/14/18 21:37	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 21:37	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/14/18 21:37	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/14/18 21:37	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/14/18 21:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 21:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/14/18 21:37	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/14/18 21:37	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/14/18 21:37	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/14/18 21:37	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/14/18 21:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/14/18 21:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 21:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/14/18 21:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 21:37	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/14/18 21:37	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/14/18 21:37	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/14/18 21:37	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/14/18 21:37	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/14/18 21:37	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/14/18 21:37	1
2-Hexanone	10	U	10	1.2	ug/L			02/14/18 21:37	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/14/18 21:37	1
Methyl acetate	10	U	10	1.4	ug/L			02/14/18 21:37	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/14/18 21:37	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/14/18 21:37	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/14/18 21:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/14/18 21:37	1
Styrene	1.0	U	1.0	0.23	ug/L			02/14/18 21:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/14/18 21:37	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 21:37	1
Toluene	1.0	U	1.0	0.23	ug/L			02/14/18 21:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/14/18 21:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/14/18 21:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/14/18 21:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/14/18 21:37	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-53-020718
Date Collected: 02/07/18 16:02
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/14/18 21:37	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/14/18 21:37	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 21:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/14/18 21:37	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/14/18 21:37	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 21:37	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 21:37	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/14/18 21:37	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/14/18 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*		*02/14/18 21:37*	*1*
Dibromofluoromethane (Surr)	*103*		*69 - 124*		*02/14/18 21:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*61 - 138*		*02/14/18 21:37*	*1*
Toluene-d8 (Surr)	*96*		*73 - 120*		*02/14/18 21:37*	*1*

Client Sample ID: MW-63-020718
Date Collected: 02/07/18 17:05
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			02/14/18 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*63 - 125*		*02/14/18 21:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/14/18 21:59	1
Benzene	1.0	U	1.0	0.28	ug/L			02/14/18 21:59	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/14/18 21:59	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/14/18 21:59	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/14/18 21:59	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/14/18 21:59	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/14/18 21:59	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/14/18 21:59	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 21:59	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/14/18 21:59	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/14/18 21:59	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/14/18 21:59	1
cis-1,2-Dichloroethene	**1.7**		1.0	0.30	ug/L			02/14/18 21:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/14/18 21:59	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/14/18 21:59	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/14/18 21:59	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/14/18 21:59	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/14/18 21:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/14/18 21:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 21:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/14/18 21:59	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 21:59	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/14/18 21:59	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/14/18 21:59	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/14/18 21:59	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/14/18 21:59	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/14/18 21:59	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/14/18 21:59	1
2-Hexanone	10	U	10	1.2	ug/L			02/14/18 21:59	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/14/18 21:59	1
Methyl acetate	10	U	10	1.4	ug/L			02/14/18 21:59	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/14/18 21:59	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			02/14/18 21:59	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/14/18 21:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/14/18 21:59	1
Styrene	**0.23**	**J**	1.0	0.23	ug/L			02/14/18 21:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/14/18 21:59	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 21:59	1
Toluene	1.0	U	1.0	0.23	ug/L			02/14/18 21:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/14/18 21:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/14/18 21:59	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/14/18 21:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/14/18 21:59	1

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-63-020718
Date Collected: 02/07/18 17:05
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/14/18 21:59	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/14/18 21:59	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 21:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/14/18 21:59	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/14/18 21:59	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 21:59	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 21:59	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/14/18 21:59	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/14/18 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*69 - 120*		*02/14/18 21:59*	*1*
Dibromofluoromethane (Surr)	*99*		*69 - 124*		*02/14/18 21:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*61 - 138*		*02/14/18 21:59*	*1*
Toluene-d8 (Surr)	*99*		*73 - 120*		*02/14/18 21:59*	*1*

Client Sample ID: PW-16-01-020718
Date Collected: 02/07/18 15:55
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.76**	**J**	2.0	0.24	ug/L			02/14/18 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*63 - 125*		*02/14/18 21:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	140	U	140	25	ug/L			02/14/18 22:22	14.28
Benzene	14	U	14	4.0	ug/L			02/14/18 22:22	14.28
Bromodichloromethane	14	U	14	4.3	ug/L			02/14/18 22:22	14.28
Bromoform	14	U	14	6.1	ug/L			02/14/18 22:22	14.28
Bromomethane	14	U	14	6.0	ug/L			02/14/18 22:22	14.28
2-Butanone (MEK)	140	U	140	15	ug/L			02/14/18 22:22	14.28
Carbon disulfide	71	U	71	4.9	ug/L			02/14/18 22:22	14.28
Carbon tetrachloride	14	U	14	5.0	ug/L			02/14/18 22:22	14.28
Chlorobenzene	14	U	14	4.6	ug/L			02/14/18 22:22	14.28
Chloroethane	14	U	14	5.9	ug/L			02/14/18 22:22	14.28
Chloroform	14	U	14	4.4	ug/L			02/14/18 22:22	14.28
Chloromethane	14	U	14	6.1	ug/L			02/14/18 22:22	14.28
cis-1,2-Dichloroethene	**82**		14	4.3	ug/L			02/14/18 22:22	14.28
cis-1,3-Dichloropropene	14	U	14	3.7	ug/L			02/14/18 22:22	14.28
Cyclohexane	14	U	14	6.3	ug/L			02/14/18 22:22	14.28
Dibromochloromethane	14	U	14	3.6	ug/L			02/14/18 22:22	14.28
1,2-Dibromo-3-Chloropropane	14	U	14	6.7	ug/L			02/14/18 22:22	14.28
1,2-Dibromoethane	14	U	14	3.3	ug/L			02/14/18 22:22	14.28
1,2-Dichlorobenzene	14	U	14	3.7	ug/L			02/14/18 22:22	14.28
1,3-Dichlorobenzene	14	U	14	4.6	ug/L			02/14/18 22:22	14.28
1,4-Dichlorobenzene	14	U	14	3.3	ug/L			02/14/18 22:22	14.28
Dichlorodifluoromethane	14	U	14	7.1	ug/L			02/14/18 22:22	14.28
1,1-Dichloroethane	14	U	14	3.6	ug/L			02/14/18 22:22	14.28
1,2-Dichloroethane	14	U	14	4.3	ug/L			02/14/18 22:22	14.28
1,1-Dichloroethene	14	U	14	3.9	ug/L			02/14/18 22:22	14.28
1,2-Dichloropropane	14	U	14	4.3	ug/L			02/14/18 22:22	14.28
Diethyl ether	29	U	29	5.0	ug/L			02/14/18 22:22	14.28
Ethylbenzene	14	U	14	3.7	ug/L			02/14/18 22:22	14.28
2-Hexanone	140	U	140	18	ug/L			02/14/18 22:22	14.28
Isopropylbenzene	14	U	14	3.0	ug/L			02/14/18 22:22	14.28
Methyl acetate	140	U	140	20	ug/L			02/14/18 22:22	14.28
Methylcyclohexane	14	U	14	6.4	ug/L			02/14/18 22:22	14.28
Methylene Chloride	**11**	**J B**	71	7.6	ug/L			02/14/18 22:22	14.28
4-Methyl-2-pentanone (MIBK)	140	U	140	10	ug/L			02/14/18 22:22	14.28
Methyl tert-butyl ether	14	U	14	3.9	ug/L			02/14/18 22:22	14.28
Styrene	14	U	14	3.3	ug/L			02/14/18 22:22	14.28
1,1,2,2-Tetrachloroethane	14	U	14	4.6	ug/L			02/14/18 22:22	14.28
Tetrachloroethene	14	U	14	4.3	ug/L			02/14/18 22:22	14.28
Toluene	14	U	14	3.3	ug/L			02/14/18 22:22	14.28
trans-1,2-Dichloroethene	**5.4**	**J**	14	4.1	ug/L			02/14/18 22:22	14.28
trans-1,3-Dichloropropene	14	U	14	4.4	ug/L			02/14/18 22:22	14.28
1,2,4-Trichlorobenzene	14	U	14	3.9	ug/L			02/14/18 22:22	14.28
1,1,1-Trichloroethane	14	U	14	3.3	ug/L			02/14/18 22:22	14.28

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: PW-16-01-020718
Date Collected: 02/07/18 15:55
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	14	U	14	4.9	ug/L			02/14/18 22:22	14.28
Trichloroethene	14	U	14	4.7	ug/L			02/14/18 22:22	14.28
Trichlorofluoromethane	14	U	14	7.1	ug/L			02/14/18 22:22	14.28
1,1,2-Trichloro-1,2,2-trifluoroethane	14	U	14	5.9	ug/L			02/14/18 22:22	14.28
1,2,3-Trimethylbenzene	71	U	71	3.1	ug/L			02/14/18 22:22	14.28
1,2,4-Trimethylbenzene	14	U	14	3.4	ug/L			02/14/18 22:22	14.28
1,3,5-Trimethylbenzene	14	U	14	3.4	ug/L			02/14/18 22:22	14.28
Vinyl chloride	**160**		14	6.4	ug/L			02/14/18 22:22	14.28
Xylenes, Total	29	U	29	3.4	ug/L			02/14/18 22:22	14.28

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*69 - 120*		*02/14/18 22:22*	*14.28*
Dibromofluoromethane (Surr)	*94*		*69 - 124*		*02/14/18 22:22*	*14.28*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*		*02/14/18 22:22*	*14.28*
Toluene-d8 (Surr)	*97*		*73 - 120*		*02/14/18 22:22*	*14.28*

Client Sample ID: TW-16-01-020718
Date Collected: 02/07/18 14:55
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-17
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			02/15/18 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*129*	*X*	*63 - 125*		*02/15/18 11:58*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	330	U	330	59	ug/L			02/15/18 15:55	33.33
Benzene	33	U	33	9.3	ug/L			02/15/18 15:55	33.33
Bromodichloromethane	33	U	33	10	ug/L			02/15/18 15:55	33.33
Bromoform	33	U	33	14	ug/L			02/15/18 15:55	33.33
Bromomethane	33	U	33	14	ug/L			02/15/18 15:55	33.33
2-Butanone (MEK)	330	U	330	34	ug/L			02/15/18 15:55	33.33
Carbon disulfide	170	U	170	11	ug/L			02/15/18 15:55	33.33
Carbon tetrachloride	33	U	33	12	ug/L			02/15/18 15:55	33.33
Chlorobenzene	33	U	33	11	ug/L			02/15/18 15:55	33.33
Chloroethane	33	U	33	14	ug/L			02/15/18 15:55	33.33
Chloroform	33	U	33	10	ug/L			02/15/18 15:55	33.33
Chloromethane	33	U	33	14	ug/L			02/15/18 15:55	33.33
cis-1,2-Dichloroethene	**34**		33	10	ug/L			02/15/18 15:55	33.33
cis-1,3-Dichloropropene	33	U	33	8.7	ug/L			02/15/18 15:55	33.33
Cyclohexane	33	U	33	15	ug/L			02/15/18 15:55	33.33
Dibromochloromethane	33	U	33	8.3	ug/L			02/15/18 15:55	33.33
1,2-Dibromo-3-Chloropropane	33	U	33	16	ug/L			02/15/18 15:55	33.33
1,2-Dibromoethane	33	U	33	7.7	ug/L			02/15/18 15:55	33.33
1,2-Dichlorobenzene	33	U	33	8.7	ug/L			02/15/18 15:55	33.33
1,3-Dichlorobenzene	33	U	33	11	ug/L			02/15/18 15:55	33.33
1,4-Dichlorobenzene	33	U	33	7.7	ug/L			02/15/18 15:55	33.33
Dichlorodifluoromethane	33	U	33	17	ug/L			02/15/18 15:55	33.33
1,1-Dichloroethane	33	U	33	8.3	ug/L			02/15/18 15:55	33.33
1,2-Dichloroethane	33	U	33	10	ug/L			02/15/18 15:55	33.33
1,1-Dichloroethene	33	U	33	9.0	ug/L			02/15/18 15:55	33.33
1,2-Dichloropropane	33	U	33	10	ug/L			02/15/18 15:55	33.33
Diethyl ether	67	U	67	12	ug/L			02/15/18 15:55	33.33
Ethylbenzene	33	U	33	8.7	ug/L			02/15/18 15:55	33.33
2-Hexanone	330	U	330	41	ug/L			02/15/18 15:55	33.33
Isopropylbenzene	33	U	33	7.0	ug/L			02/15/18 15:55	33.33
Methyl acetate	330	U	330	48	ug/L			02/15/18 15:55	33.33
Methylcyclohexane	33	U	33	15	ug/L			02/15/18 15:55	33.33
Methylene Chloride	**23**	**J B**	170	18	ug/L			02/15/18 15:55	33.33
4-Methyl-2-pentanone (MIBK)	330	U	330	24	ug/L			02/15/18 15:55	33.33
Methyl tert-butyl ether	33	U	33	9.0	ug/L			02/15/18 15:55	33.33
Styrene	33	U	33	7.7	ug/L			02/15/18 15:55	33.33
1,1,2,2-Tetrachloroethane	33	U	33	11	ug/L			02/15/18 15:55	33.33
Tetrachloroethene	33	U	33	10	ug/L			02/15/18 15:55	33.33
Toluene	33	U	33	7.7	ug/L			02/15/18 15:55	33.33
trans-1,2-Dichloroethene	33	U	33	9.7	ug/L			02/15/18 15:55	33.33
trans-1,3-Dichloropropene	33	U	33	10	ug/L			02/15/18 15:55	33.33
1,2,4-Trichlorobenzene	33	U	33	9.0	ug/L			02/15/18 15:55	33.33
1,1,1-Trichloroethane	33	U	33	7.7	ug/L			02/15/18 15:55	33.33

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: TW-16-01-020718
Date Collected: 02/07/18 14:55
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-17
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	33	U	33	11	ug/L			02/15/18 15:55	33.33
Trichloroethene	33	U	33	11	ug/L			02/15/18 15:55	33.33
Trichlorofluoromethane	33	U	33	17	ug/L			02/15/18 15:55	33.33
1,1,2-Trichloro-1,2,2-trifluoroethane	33	U	33	14	ug/L			02/15/18 15:55	33.33
1,2,3-Trimethylbenzene	170	U	170	7.3	ug/L			02/15/18 15:55	33.33
1,2,4-Trimethylbenzene	33	U	33	8.0	ug/L			02/15/18 15:55	33.33
1,3,5-Trimethylbenzene	33	U	33	8.0	ug/L			02/15/18 15:55	33.33
Vinyl chloride	**380**		33	15	ug/L			02/15/18 15:55	33.33
Xylenes, Total	67	U	67	8.0	ug/L			02/15/18 15:55	33.33

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*69 - 120*		*02/15/18 15:55*	*33.33*
Dibromofluoromethane (Surr)	*102*		*69 - 124*		*02/15/18 15:55*	*33.33*
1,2-Dichloroethane-d4 (Surr)	*99*		*61 - 138*		*02/15/18 15:55*	*33.33*
Toluene-d8 (Surr)	*97*		*73 - 120*		*02/15/18 15:55*	*33.33*

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(69-120)	(69-124)	(61-138)	(73-120)
240-91308-B-3 MS	Matrix Spike	98	99	114	109
240-91308-B-3 MSD	Matrix Spike Duplicate	92	100	112	105
240-91314-B-3 MS	Matrix Spike	93	109	105	98
240-91314-B-3 MSD	Matrix Spike Duplicate	91	102	103	98
240-91339-E-9 MS	Matrix Spike	92	97	95	99
240-91339-F-9 MSD	Matrix Spike Duplicate	92	102	97	99
240-91358-1	MW-65-020618	86	95	93	95
240-91358-2	MW-44-020618	92	101	94	98
240-91358-3	MW-22-020618	93	99	97	95
240-91358-4	MW-62-020618	85	99	111	108
240-91358-5	MW-15-59D-020618	81	100	110	106
240-91358-6	MW-15-60D-020618	81	103	101	106
240-91358-7	MW-15-61D-020618	86	99	106	109
240-91358-8	MW-23-020618	91	99	93	97
240-91358-9	TRIP BLANK	89	104	96	94
240-91358-10	MW-28-020718	90	94	95	98
240-91358-11	MW-58-020718	83	91	95	93
240-91358-12	MW-55-020718	90	100	93	96
240-91358-13	MW-54-020718	90	97	93	93
240-91358-14	MW-53-020718	92	103	98	96
240-91358-15	MW-63-020718	91	99	94	99
240-91358-16	PW-16-01-020718	91	94	97	97
240-91358-17	TW-16-01-020718	94	102	99	97
LCS 240-314579/4	Lab Control Sample	92	97	108	107
LCS 240-314760/4	Lab Control Sample	91	101	93	99
LCS 240-314918/4	Lab Control Sample	91	101	103	98
MB 240-314579/6	Method Blank	83	96	101	103
MB 240-314760/6	Method Blank	91	95	97	96
MB 240-314918/6	Method Blank	84	93	93	95

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)
		DCA
Lab Sample ID	Client Sample ID	(63-125)
240-91358-1	MW-65-020618	125
240-91358-2	MW-44-020618	121
240-91358-3	MW-22-020618	122
240-91358-4	MW-62-020618	120
240-91358-5	MW-15-59D-020618	117
240-91358-6	MW-15-60D-020618	111
240-91358-7	MW-15-61D-020618	113

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	DCA (63-125)						
240-91358-8	MW-23-020618	104						
240-91358-10	MW-28-020718	117						
240-91358-11	MW-58-020718	123						
240-91358-12	MW-55-020718	120						
240-91358-13	MW-54-020718	119						
240-91358-14	MW-53-020718	117						
240-91358-15	MW-63-020718	117						
240-91358-16	PW-16-01-020718	115						
240-91358-17	TW-16-01-020718	129 X						
240-91361-D-11 MS	Matrix Spike	121						
240-91361-D-11 MSD	Matrix Spike Duplicate	119						
500-140728-B-11 MS	Matrix Spike	124						
500-140728-B-11 MSD	Matrix Spike Duplicate	126 X						
500-140728-C-2 MS	Matrix Spike	110						
500-140728-C-2 MSD	Matrix Spike Duplicate	113						
LCS 240-314572/4	Lab Control Sample	114						
LCS 240-314747/4	Lab Control Sample	106						
LCS 240-314896/4	Lab Control Sample	113						
MB 240-314572/5	Method Blank	121						
MB 240-314747/5	Method Blank	116						
MB 240-314896/5	Method Blank	120						

Surrogate Legend

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

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

Lab Sample ID: MB 240-314579/6
Matrix: Water
Analysis Batch: 314579

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/13/18 13:09	1
Benzene	1.0	U	1.0	0.28	ug/L			02/13/18 13:09	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/13/18 13:09	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/13/18 13:09	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/13/18 13:09	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/13/18 13:09	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/13/18 13:09	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/13/18 13:09	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 13:09	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/13/18 13:09	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/13/18 13:09	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/13/18 13:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 13:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/13/18 13:09	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/13/18 13:09	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/13/18 13:09	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/13/18 13:09	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/13/18 13:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/13/18 13:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/13/18 13:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/13/18 13:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 13:09	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/13/18 13:09	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/13/18 13:09	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/13/18 13:09	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/13/18 13:09	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/13/18 13:09	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/18 13:09	1
2-Hexanone	10	U	10	1.2	ug/L			02/13/18 13:09	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/13/18 13:09	1
Methyl acetate	10	U	10	1.4	ug/L			02/13/18 13:09	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/13/18 13:09	1
Methylene Chloride	0.604	J	5.0	0.53	ug/L			02/13/18 13:09	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/13/18 13:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/13/18 13:09	1
Styrene	1.0	U	1.0	0.23	ug/L			02/13/18 13:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/13/18 13:09	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/13/18 13:09	1
Toluene	1.0	U	1.0	0.23	ug/L			02/13/18 13:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/18 13:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/13/18 13:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/13/18 13:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/18 13:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/13/18 13:09	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/13/18 13:09	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/13/18 13:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/13/18 13:09	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/13/18 13:09	1

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

Lab Sample ID: MB 240-314579/6
Matrix: Water
Analysis Batch: 314579

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 13:09	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/13/18 13:09	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/13/18 13:09	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/13/18 13:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*69 - 120*		*02/13/18 13:09*	*1*
Dibromofluoromethane (Surr)	*96*		*69 - 124*		*02/13/18 13:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*61 - 138*		*02/13/18 13:09*	*1*
Toluene-d8 (Surr)	*103*		*73 - 120*		*02/13/18 13:09*	*1*

Lab Sample ID: LCS 240-314579/4
Matrix: Water
Analysis Batch: 314579

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	11.3		ug/L		57	35 - 131
Benzene	10.0	11.2		ug/L		112	79 - 120
Bromodichloromethane	10.0	11.4		ug/L		114	79 - 125
Bromoform	10.0	8.28		ug/L		83	55 - 145
Bromomethane	10.0	9.24		ug/L		92	17 - 158
2-Butanone (MEK)	20.0	16.4		ug/L		82	43 - 149
Carbon disulfide	10.0	9.41		ug/L		94	49 - 141
Carbon tetrachloride	10.0	10.3		ug/L		103	55 - 171
Chlorobenzene	10.0	11.1		ug/L		111	80 - 120
Chloroethane	10.0	11.7		ug/L		117	10 - 149
Chloroform	10.0	11.6		ug/L		116	80 - 120
Chloromethane	10.0	12.9	*	ug/L		129	59 - 124
cis-1,2-Dichloroethene	10.0	11.1		ug/L		111	77 - 120
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	75 - 120
Cyclohexane	10.0	12.5		ug/L		125	66 - 135
Dibromochloromethane	10.0	10.2		ug/L		102	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	7.84		ug/L		78	50 - 130
1,2-Dibromoethane	10.0	9.97		ug/L		100	80 - 120
1,2-Dichlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,3-Dichlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,4-Dichlorobenzene	10.0	10.4		ug/L		104	80 - 120
Dichlorodifluoromethane	10.0	12.0		ug/L		120	42 - 141
1,1-Dichloroethane	10.0	11.7		ug/L		117	74 - 120
1,2-Dichloroethane	10.0	12.0		ug/L		120	68 - 133
1,1-Dichloroethene	10.0	9.05		ug/L		91	65 - 127
1,2-Dichloropropane	10.0	11.5		ug/L		115	78 - 127
Diethyl ether	10.0	9.78		ug/L		98	72 - 125
Ethylbenzene	10.0	11.0		ug/L		110	80 - 120
2-Hexanone	20.0	16.5		ug/L		83	28 - 169
Isopropylbenzene	10.0	10.1		ug/L		101	80 - 128
Methyl acetate	20.0	20.0		ug/L		100	63 - 137
Methylcyclohexane	10.0	10.4		ug/L		104	63 - 141

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

Lab Sample ID: LCS 240-314579/4
Matrix: Water
Analysis Batch: 314579

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	10.0	11.1		ug/L		111	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	17.5		ug/L		88	53 - 144
Methyl tert-butyl ether	10.0	9.86		ug/L		99	73 - 120
Styrene	10.0	10.2		ug/L		102	80 - 121
1,1,2,2-Tetrachloroethane	10.0	11.7		ug/L		117	58 - 122
Tetrachloroethene	10.0	9.95		ug/L		100	80 - 122
Toluene	10.0	12.1	*	ug/L		121	78 - 120
trans-1,2-Dichloroethene	10.0	10.8		ug/L		108	74 - 124
trans-1,3-Dichloropropene	10.0	11.0		ug/L		110	67 - 120
1,2,4-Trichlorobenzene	10.0	7.73		ug/L		77	34 - 141
1,1,1-Trichloroethane	10.0	11.5		ug/L		115	64 - 147
1,1,2-Trichloroethane	10.0	11.7		ug/L		117	76 - 121
Trichloroethene	10.0	10.0		ug/L		100	76 - 124
Trichlorofluoromethane	10.0	10.2		ug/L		102	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.39		ug/L		94	65 - 144
1,2,4-Trimethylbenzene	10.0	11.0		ug/L		110	80 - 120
1,3,5-Trimethylbenzene	10.0	11.1		ug/L		111	79 - 120
Vinyl chloride	10.0	12.2		ug/L		122	65 - 124
Xylenes, Total	20.0	21.4		ug/L		107	80 - 120
1,4-Dioxane	200	115		ug/L		58	35 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*
Dibromofluoromethane (Surr)	*97*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*108*		*61 - 138*
Toluene-d8 (Surr)	*107*		*73 - 120*

Lab Sample ID: 240-91308-B-3 MS
Matrix: Water
Analysis Batch: 314579

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
Acetone	200	U F2	400	212		ug/L		53	19 - 133
Benzene	20	U	200	218		ug/L		109	69 - 127
Bromodichloromethane	20	U	200	220		ug/L		110	75 - 128
Bromoform	20	U	200	184		ug/L		92	61 - 135
Bromomethane	20	U	200	145		ug/L		72	10 - 148
2-Butanone (MEK)	200	U	400	381		ug/L		95	34 - 153
Carbon disulfide	100	U	200	177		ug/L		89	46 - 143
Carbon tetrachloride	20	U	200	181		ug/L		91	53 - 175
Chlorobenzene	20	U	200	209		ug/L		104	76 - 120
Chloroethane	20	U	200	199		ug/L		99	10 - 141
Chloroform	20	U	200	220		ug/L		110	74 - 125
Chloromethane	20	U *	200	199		ug/L		99	34 - 127
cis-1,2-Dichloroethene	330		200	571		ug/L		119	69 - 127
cis-1,3-Dichloropropene	20	U	200	200		ug/L		100	68 - 120
Dibromochloromethane	20	U	200	200		ug/L		100	62 - 131

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

Lab Sample ID: 240-91308-B-3 MS
Matrix: Water
Analysis Batch: 314579

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
1,2-Dichlorobenzene	20	U	200	197		ug/L		99	70 - 120
1,3-Dichlorobenzene	20	U	200	194		ug/L		97	71 - 120
1,4-Dichlorobenzene	20	U	200	194		ug/L		97	72 - 120
1,1-Dichloroethane	20	U	200	228		ug/L		114	69 - 122
1,2-Dichloroethane	20	U	200	238		ug/L		119	64 - 138
1,1-Dichloroethene	20	U	200	173		ug/L		86	62 - 127
1,2-Dichloropropane	20	U	200	231		ug/L		116	72 - 131
Ethylbenzene	20	U	200	197		ug/L		99	72 - 121
2-Hexanone	200	U	400	449		ug/L		112	21 - 184
Methylene Chloride	100	U	200	216		ug/L		108	52 - 137
4-Methyl-2-pentanone (MIBK)	200	U	400	453		ug/L		113	53 - 147
Styrene	20	U	200	189		ug/L		95	74 - 125
1,1,2,2-Tetrachloroethane	20	U F1	200	281	F1	ug/L		141	51 - 123
Tetrachloroethene	20	U	200	162		ug/L		81	69 - 126
Toluene	20	U *	200	223		ug/L		111	69 - 125
trans-1,2-Dichloroethene	20	U	200	199		ug/L		99	66 - 131
trans-1,3-Dichloropropene	20	U	200	216		ug/L		108	59 - 120
1,1,1-Trichloroethane	20	U	200	205		ug/L		102	57 - 156
1,1,2-Trichloroethane	20	U F1	200	256	F1	ug/L		128	68 - 127
Trichloroethene	10	J	200	195		ug/L		92	68 - 129
Trichlorofluoromethane	20	U F2	200	129		ug/L		65	28 - 172
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U F1	200	113	F1	ug/L		57	58 - 137
Vinyl chloride	20	U	200	226		ug/L		113	55 - 123
Xylenes, Total	40	U	400	386		ug/L		97	71 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*69 - 120*
Dibromofluoromethane (Surr)	*99*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*114*		*61 - 138*
Toluene-d8 (Surr)	*109*		*73 - 120*

Lab Sample ID: 240-91308-B-3 MSD
Matrix: Water
Analysis Batch: 314579

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
Acetone	200	U F2	400	307	F2	ug/L		77	19 - 133	37	35
Benzene	20	U	200	213		ug/L		107	69 - 127	2	10
Bromodichloromethane	20	U	200	219		ug/L		110	75 - 128	1	13
Bromoform	20	U	200	169		ug/L		84	61 - 135	8	13
Bromomethane	20	U	200	182		ug/L		91	10 - 148	23	35
2-Butanone (MEK)	200	U	400	409		ug/L		102	34 - 153	7	23
Carbon disulfide	100	U	200	203		ug/L		101	46 - 143	13	18
Carbon tetrachloride	20	U	200	188		ug/L		94	53 - 175	4	17
Chlorobenzene	20	U	200	198		ug/L		99	76 - 120	5	12
Chloroethane	20	U	200	223		ug/L		112	10 - 141	12	35
Chloroform	20	U	200	217		ug/L		108	74 - 125	2	11

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

Lab Sample ID: 240-91308-B-3 MSD
Matrix: Water
Analysis Batch: 314579

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
Chloromethane	20	U *	200	221		ug/L		111	34 - 127	11	25
cis-1,2-Dichloroethene	330		200	555		ug/L		110	69 - 127	3	11
cis-1,3-Dichloropropene	20	U	200	204		ug/L		102	68 - 120	2	13
Dibromochloromethane	20	U	200	194		ug/L		97	62 - 131	3	15
1,2-Dichlorobenzene	20	U	200	208		ug/L		104	70 - 120	5	19
1,3-Dichlorobenzene	20	U	200	194		ug/L		97	71 - 120	0	18
1,4-Dichlorobenzene	20	U	200	200		ug/L		100	72 - 120	3	17
1,1-Dichloroethane	20	U	200	230		ug/L		115	69 - 122	1	11
1,2-Dichloroethane	20	U	200	245		ug/L		123	64 - 138	3	11
1,1-Dichloroethene	20	U	200	185		ug/L		93	62 - 127	7	14
1,2-Dichloropropane	20	U	200	231		ug/L		116	72 - 131	0	12
Ethylbenzene	20	U	200	185		ug/L		92	72 - 121	7	15
2-Hexanone	200	U	400	429		ug/L		107	21 - 184	5	12
Methylene Chloride	100	U	200	232		ug/L		116	52 - 137	7	12
4-Methyl-2-pentanone (MIBK)	200	U	400	450		ug/L		112	53 - 147	1	16
Styrene	20	U	200	181		ug/L		90	74 - 125	5	14
1,1,2,2-Tetrachloroethane	20	U F1	200	302	F1	ug/L		151	51 - 123	7	17
Tetrachloroethene	20	U	200	167		ug/L		83	69 - 126	3	18
Toluene	20	U *	200	217		ug/L		108	69 - 125	3	14
trans-1,2-Dichloroethene	20	U	200	199		ug/L		99	66 - 131	0	11
trans-1,3-Dichloropropene	20	U	200	208		ug/L		104	59 - 120	4	14
1,1,1-Trichloroethane	20	U	200	209		ug/L		105	57 - 156	2	13
1,1,2-Trichloroethane	20	U F1	200	245		ug/L		122	68 - 127	4	11
Trichloroethene	10	J	200	185		ug/L		87	68 - 129	5	12
Trichlorofluoromethane	20	U F2	200	170	F2	ug/L		85	28 - 172	27	26
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U F1	200	148		ug/L		74	58 - 137	27	35
Vinyl chloride	20	U	200	230		ug/L		115	55 - 123	1	12
Xylenes, Total	40	U	400	372		ug/L		93	71 - 122	4	14

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*
Dibromofluoromethane (Surr)	*100*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*112*		*61 - 138*
Toluene-d8 (Surr)	*105*		*73 - 120*

Lab Sample ID: MB 240-314760/6
Matrix: Water
Analysis Batch: 314760

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/14/18 16:07	1
Benzene	1.0	U	1.0	0.28	ug/L			02/14/18 16:07	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/14/18 16:07	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/14/18 16:07	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/14/18 16:07	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/14/18 16:07	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/14/18 16:07	1

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

Lab Sample ID: MB 240-314760/6
Matrix: Water
Analysis Batch: 314760

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/14/18 16:07	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 16:07	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/14/18 16:07	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/14/18 16:07	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/14/18 16:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 16:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/14/18 16:07	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/14/18 16:07	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/14/18 16:07	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/14/18 16:07	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/14/18 16:07	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/14/18 16:07	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/14/18 16:07	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/14/18 16:07	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 16:07	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/14/18 16:07	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/14/18 16:07	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/14/18 16:07	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/14/18 16:07	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/14/18 16:07	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/14/18 16:07	1
2-Hexanone	10	U	10	1.2	ug/L			02/14/18 16:07	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/14/18 16:07	1
Methyl acetate	10	U	10	1.4	ug/L			02/14/18 16:07	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/14/18 16:07	1
Methylene Chloride	0.577	J	5.0	0.53	ug/L			02/14/18 16:07	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/14/18 16:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/14/18 16:07	1
Styrene	1.0	U	1.0	0.23	ug/L			02/14/18 16:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/14/18 16:07	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/14/18 16:07	1
Toluene	1.0	U	1.0	0.23	ug/L			02/14/18 16:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/14/18 16:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/14/18 16:07	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/14/18 16:07	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/14/18 16:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/14/18 16:07	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/14/18 16:07	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/14/18 16:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/14/18 16:07	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/14/18 16:07	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 16:07	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/14/18 16:07	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/14/18 16:07	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/14/18 16:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*69 - 120*		*02/14/18 16:07*	*1*

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

Lab Sample ID: MB 240-314760/6
Matrix: Water
Analysis Batch: 314760

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*95*		*69 - 124*		*02/14/18 16:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*		*02/14/18 16:07*	*1*
Toluene-d8 (Surr)	*96*		*73 - 120*		*02/14/18 16:07*	*1*

Lab Sample ID: LCS 240-314760/4
Matrix: Water
Analysis Batch: 314760

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	13.5		ug/L		67	35 - 131
Benzene	10.0	8.96		ug/L		90	79 - 120
Bromodichloromethane	10.0	9.66		ug/L		97	79 - 125
Bromoform	10.0	8.13		ug/L		81	55 - 145
Bromomethane	10.0	10.5		ug/L		105	17 - 158
2-Butanone (MEK)	20.0	14.8		ug/L		74	43 - 149
Carbon disulfide	10.0	10.5		ug/L		105	49 - 141
Carbon tetrachloride	10.0	11.1		ug/L		111	55 - 171
Chlorobenzene	10.0	9.77		ug/L		98	80 - 120
Chloroethane	10.0	5.63		ug/L		56	10 - 149
Chloroform	10.0	10.6		ug/L		106	80 - 120
Chloromethane	10.0	7.48		ug/L		75	59 - 124
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	77 - 120
cis-1,3-Dichloropropene	10.0	8.50		ug/L		85	75 - 120
Cyclohexane	10.0	8.61		ug/L		86	66 - 135
Dibromochloromethane	10.0	9.51		ug/L		95	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	6.98		ug/L		70	50 - 130
1,2-Dibromoethane	10.0	8.80		ug/L		88	80 - 120
1,2-Dichlorobenzene	10.0	8.85		ug/L		89	80 - 120
1,3-Dichlorobenzene	10.0	8.52		ug/L		85	80 - 120
1,4-Dichlorobenzene	10.0	8.60		ug/L		86	80 - 120
Dichlorodifluoromethane	10.0	8.87		ug/L		89	42 - 141
1,1-Dichloroethane	10.0	9.94		ug/L		99	74 - 120
1,2-Dichloroethane	10.0	10.5		ug/L		105	68 - 133
1,1-Dichloroethene	10.0	10.4		ug/L		104	65 - 127
1,2-Dichloropropane	10.0	9.10		ug/L		91	78 - 127
Diethyl ether	10.0	10.9		ug/L		109	72 - 125
Ethylbenzene	10.0	9.72		ug/L		97	80 - 120
2-Hexanone	20.0	13.9		ug/L		69	28 - 169
Isopropylbenzene	10.0	9.55		ug/L		96	80 - 128
Methyl acetate	20.0	14.1		ug/L		70	63 - 137
Methylcyclohexane	10.0	8.78		ug/L		88	63 - 141
Methylene Chloride	10.0	10.2		ug/L		102	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	15.2		ug/L		76	53 - 144
Methyl tert-butyl ether	10.0	9.47		ug/L		95	73 - 120
Styrene	10.0	9.02		ug/L		90	80 - 121
1,1,2,2-Tetrachloroethane	10.0	8.28		ug/L		83	58 - 122
Tetrachloroethene	10.0	9.81		ug/L		98	80 - 122
Toluene	10.0	9.25		ug/L		92	78 - 120

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

Lab Sample ID: LCS 240-314760/4
Matrix: Water
Analysis Batch: 314760

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	74 - 124
trans-1,3-Dichloropropene	10.0	7.76		ug/L		78	67 - 120
1,2,4-Trichlorobenzene	10.0	7.68		ug/L		77	34 - 141
1,1,1-Trichloroethane	10.0	11.2		ug/L		112	64 - 147
1,1,2-Trichloroethane	10.0	9.04		ug/L		90	76 - 121
Trichloroethene	10.0	9.82		ug/L		98	76 - 124
Trichlorofluoromethane	10.0	15.6		ug/L		156	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	12.0		ug/L		120	65 - 144
1,2,4-Trimethylbenzene	10.0	8.89		ug/L		89	80 - 120
1,3,5-Trimethylbenzene	10.0	8.87		ug/L		89	79 - 120
Vinyl chloride	10.0	9.28		ug/L		93	65 - 124
Xylenes, Total	20.0	18.9		ug/L		95	80 - 120
1,4-Dioxane	200	88.3		ug/L		44	35 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*69 - 120*
Dibromofluoromethane (Surr)	*101*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*
Toluene-d8 (Surr)	*99*		*73 - 120*

Lab Sample ID: 240-91314-B-3 MS
Matrix: Water
Analysis Batch: 314760

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
Acetone	400	U	800	428		ug/L		53	19 - 133
Benzene	40	U	400	380		ug/L		95	69 - 127
Bromodichloromethane	40	U	400	376		ug/L		94	75 - 128
Bromoform	40	U	400	306		ug/L		76	61 - 135
Bromomethane	40	U	400	419		ug/L		105	10 - 148
2-Butanone (MEK)	400	U F2	800	482		ug/L		60	34 - 153
Carbon disulfide	200	U	400	443		ug/L		111	46 - 143
Carbon tetrachloride	40	U	400	475		ug/L		119	53 - 175
Chlorobenzene	40	U	400	376		ug/L		94	76 - 120
Chloroethane	40	U	400	233		ug/L		58	10 - 141
Chloroform	40	U F2	400	450		ug/L		112	74 - 125
Chloromethane	40	U	400	306		ug/L		76	34 - 127
cis-1,2-Dichloroethene	520	F2	400	1010		ug/L		122	69 - 127
cis-1,3-Dichloropropene	40	U	400	318		ug/L		79	68 - 120
Cyclohexane	40	U	400	380		ug/L		95	56 - 135
Dibromochloromethane	40	U	400	346		ug/L		86	62 - 131
1,2-Dichlorobenzene	40	U	400	325		ug/L		81	70 - 120
1,3-Dichlorobenzene	40	U	400	314		ug/L		78	71 - 120
1,4-Dichlorobenzene	40	U	400	321		ug/L		80	72 - 120
Dichlorodifluoromethane	40	U	400	363		ug/L		91	45 - 130
1,1-Dichloroethane	23	J F2	400	449		ug/L		106	69 - 122
1,2-Dichloroethane	40	U	400	441		ug/L		110	64 - 138

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

Lab Sample ID: 240-91314-B-3 MS
Matrix: Water
Analysis Batch: 314760

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	40	U F2	400	461		ug/L		115	62 - 127
1,2-Dichloropropane	40	U	400	374		ug/L		93	72 - 131
Ethylbenzene	40	U	400	363		ug/L		91	72 - 121
2-Hexanone	400	U	800	586		ug/L		73	21 - 184
Isopropylbenzene	40	U	400	372		ug/L		93	70 - 132
Methyl acetate	400	U	800	531		ug/L		66	52 - 139
Methylcyclohexane	40	U	400	391		ug/L		98	46 - 139
Methylene Chloride	36	J B	400	432		ug/L		99	52 - 137
4-Methyl-2-pentanone (MIBK)	400	U	800	592		ug/L		74	53 - 147
Methyl tert-butyl ether	40	U	400	378		ug/L		94	67 - 125
Styrene	40	U	400	343		ug/L		86	74 - 125
1,1,2,2-Tetrachloroethane	40	U	400	316		ug/L		79	51 - 123
Tetrachloroethene	40	U	400	385		ug/L		96	69 - 126
Toluene	40	U	400	366		ug/L		92	69 - 125
trans-1,2-Dichloroethene	40	U F2	400	445		ug/L		111	66 - 131
trans-1,3-Dichloropropene	40	U	400	286		ug/L		72	59 - 120
1,2,4-Trichlorobenzene	40	U	400	271		ug/L		68	26 - 138
1,1,1-Trichloroethane	15	J F2	400	489		ug/L		118	57 - 156
1,1,2-Trichloroethane	40	U	400	350		ug/L		87	68 - 127
Trichloroethene	40	U F2	400	414		ug/L		103	68 - 129
Trichlorofluoromethane	40	U	400	652		ug/L		163	28 - 172
1,1,2-Trichloro-1,2,2-trifluoroethane	40	U	400	543		ug/L		136	58 - 137
Vinyl chloride	270	F2	400	717		ug/L		111	55 - 123
Xylenes, Total	80	U	800	730		ug/L		91	71 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*69 - 120*
Dibromofluoromethane (Surr)	*109*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*105*		*61 - 138*
Toluene-d8 (Surr)	*98*		*73 - 120*

Lab Sample ID: 240-91314-B-3 MSD
Matrix: Water
Analysis Batch: 314760

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
Acetone	400	U	800	572		ug/L		72	19 - 133	29	35
Benzene	40	U	400	344		ug/L		86	69 - 127	10	10
Bromodichloromethane	40	U	400	351		ug/L		88	75 - 128	7	13
Bromoform	40	U	400	301		ug/L		75	61 - 135	2	13
Bromomethane	40	U	400	356		ug/L		89	10 - 148	16	35
2-Butanone (MEK)	400	U F2	800	685	F2	ug/L		86	34 - 153	35	23
Carbon disulfide	200	U	400	379		ug/L		95	46 - 143	16	18
Carbon tetrachloride	40	U	400	413		ug/L		103	53 - 175	14	17
Chlorobenzene	40	U	400	361		ug/L		90	76 - 120	4	12
Chloroethane	40	U	400	168		ug/L		42	10 - 141	32	35
Chloroform	40	U F2	400	384	F2	ug/L		96	74 - 125	16	11

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

Lab Sample ID: 240-91314-B-3 MSD
Matrix: Water
Analysis Batch: 314760

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
Chloromethane	40	U	400	285		ug/L		71	34 - 127	7	25
cis-1,2-Dichloroethene	520	F2	400	886	F2	ug/L		91	69 - 127	13	11
cis-1,3-Dichloropropene	40	U	400	319		ug/L		80	68 - 120	0	13
Cyclohexane	40	U	400	333		ug/L		83	56 - 135	13	35
Dibromochloromethane	40	U	400	348		ug/L		87	62 - 131	1	15
1,2-Dichlorobenzene	40	U	400	326		ug/L		81	70 - 120	0	19
1,3-Dichlorobenzene	40	U	400	308		ug/L		77	71 - 120	2	18
1,4-Dichlorobenzene	40	U	400	313		ug/L		78	72 - 120	3	17
Dichlorodifluoromethane	40	U	400	342		ug/L		85	45 - 130	6	34
1,1-Dichloroethane	23	J F2	400	396	F2	ug/L		93	69 - 122	12	11
1,2-Dichloroethane	40	U	400	411		ug/L		103	64 - 138	7	11
1,1-Dichloroethene	40	U F2	400	398	F2	ug/L		99	62 - 127	15	14
1,2-Dichloropropane	40	U	400	354		ug/L		88	72 - 131	5	12
Ethylbenzene	40	U	400	341		ug/L		85	72 - 121	6	15
2-Hexanone	400	U	800	601		ug/L		75	21 - 184	3	12
Isopropylbenzene	40	U	400	329		ug/L		82	70 - 132	12	16
Methyl acetate	400	U	800	604		ug/L		75	52 - 139	13	14
Methylcyclohexane	40	U	400	344		ug/L		86	46 - 139	13	35
Methylene Chloride	36	J B	400	388		ug/L		88	52 - 137	11	12
4-Methyl-2-pentanone (MIBK)	400	U	800	621		ug/L		78	53 - 147	5	16
Methyl tert-butyl ether	40	U	400	347		ug/L		87	67 - 125	9	12
Styrene	40	U	400	330		ug/L		83	74 - 125	4	14
1,1,2,2-Tetrachloroethane	40	U	400	315		ug/L		79	51 - 123	0	17
Tetrachloroethene	40	U	400	324		ug/L		81	69 - 126	17	18
Toluene	40	U	400	343		ug/L		86	69 - 125	7	14
trans-1,2-Dichloroethene	40	U F2	400	389	F2	ug/L		97	66 - 131	13	11
trans-1,3-Dichloropropene	40	U	400	287		ug/L		72	59 - 120	0	14
1,2,4-Trichlorobenzene	40	U	400	287		ug/L		72	26 - 138	6	35
1,1,1-Trichloroethane	15	J F2	400	407	F2	ug/L		98	57 - 156	18	13
1,1,2-Trichloroethane	40	U	400	347		ug/L		87	68 - 127	1	11
Trichloroethene	40	U F2	400	361	F2	ug/L		90	68 - 129	14	12
Trichlorofluoromethane	40	U	400	546		ug/L		136	28 - 172	18	26
1,1,2-Trichloro-1,2,2-trifluoroethane	40	U	400	470		ug/L		118	58 - 137	14	35
Vinyl chloride	270	F2	400	632	F2	ug/L		89	55 - 123	13	12
Xylenes, Total	80	U	800	680		ug/L		85	71 - 122	7	14

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*69 - 120*
Dibromofluoromethane (Surr)	*102*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*103*		*61 - 138*
Toluene-d8 (Surr)	*98*		*73 - 120*

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

Lab Sample ID: MB 240-314918/6
Matrix: Water
Analysis Batch: 314918

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			02/15/18 14:28	1
Benzene	1.0	U	1.0	0.28	ug/L			02/15/18 14:28	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			02/15/18 14:28	1
Bromoform	1.0	U	1.0	0.43	ug/L			02/15/18 14:28	1
Bromomethane	1.0	U	1.0	0.42	ug/L			02/15/18 14:28	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			02/15/18 14:28	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			02/15/18 14:28	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			02/15/18 14:28	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			02/15/18 14:28	1
Chloroethane	1.0	U	1.0	0.41	ug/L			02/15/18 14:28	1
Chloroform	1.0	U	1.0	0.31	ug/L			02/15/18 14:28	1
Chloromethane	1.0	U	1.0	0.43	ug/L			02/15/18 14:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			02/15/18 14:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			02/15/18 14:28	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			02/15/18 14:28	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			02/15/18 14:28	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			02/15/18 14:28	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			02/15/18 14:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			02/15/18 14:28	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			02/15/18 14:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			02/15/18 14:28	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			02/15/18 14:28	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			02/15/18 14:28	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			02/15/18 14:28	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			02/15/18 14:28	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			02/15/18 14:28	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			02/15/18 14:28	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			02/15/18 14:28	1
2-Hexanone	10	U	10	1.2	ug/L			02/15/18 14:28	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			02/15/18 14:28	1
Methyl acetate	10	U	10	1.4	ug/L			02/15/18 14:28	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			02/15/18 14:28	1
Methylene Chloride	0.672	J	5.0	0.53	ug/L			02/15/18 14:28	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			02/15/18 14:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			02/15/18 14:28	1
Styrene	1.0	U	1.0	0.23	ug/L			02/15/18 14:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			02/15/18 14:28	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			02/15/18 14:28	1
Toluene	1.0	U	1.0	0.23	ug/L			02/15/18 14:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/15/18 14:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			02/15/18 14:28	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			02/15/18 14:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/15/18 14:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			02/15/18 14:28	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			02/15/18 14:28	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			02/15/18 14:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			02/15/18 14:28	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			02/15/18 14:28	1

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

Lab Sample ID: MB 240-314918/6
Matrix: Water
Analysis Batch: 314918

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/15/18 14:28	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			02/15/18 14:28	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			02/15/18 14:28	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			02/15/18 14:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*69 - 120*		*02/15/18 14:28*	*1*
Dibromofluoromethane (Surr)	*93*		*69 - 124*		*02/15/18 14:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 138*		*02/15/18 14:28*	*1*
Toluene-d8 (Surr)	*95*		*73 - 120*		*02/15/18 14:28*	*1*

Lab Sample ID: LCS 240-314918/4
Matrix: Water
Analysis Batch: 314918

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	13.7		ug/L		69	35 - 131
Benzene	10.0	9.45		ug/L		94	79 - 120
Bromodichloromethane	10.0	9.89		ug/L		99	79 - 125
Bromoform	10.0	8.73		ug/L		87	55 - 145
Bromomethane	10.0	10.8		ug/L		108	17 - 158
2-Butanone (MEK)	20.0	17.3		ug/L		86	43 - 149
Carbon disulfide	10.0	10.7		ug/L		107	49 - 141
Carbon tetrachloride	10.0	11.6		ug/L		116	55 - 171
Chlorobenzene	10.0	10.4		ug/L		104	80 - 120
Chloroethane	10.0	5.32		ug/L		53	10 - 149
Chloroform	10.0	10.8		ug/L		108	80 - 120
Chloromethane	10.0	8.07		ug/L		81	59 - 124
cis-1,2-Dichloroethene	10.0	10.6		ug/L		106	77 - 120
cis-1,3-Dichloropropene	10.0	8.83		ug/L		88	75 - 120
Cyclohexane	10.0	9.09		ug/L		91	66 - 135
Dibromochloromethane	10.0	9.82		ug/L		98	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	6.64		ug/L		66	50 - 130
1,2-Dibromoethane	10.0	9.05		ug/L		90	80 - 120
1,2-Dichlorobenzene	10.0	9.47		ug/L		95	80 - 120
1,3-Dichlorobenzene	10.0	9.20		ug/L		92	80 - 120
1,4-Dichlorobenzene	10.0	9.26		ug/L		93	80 - 120
Dichlorodifluoromethane	10.0	9.63		ug/L		96	42 - 141
1,1-Dichloroethane	10.0	10.5		ug/L		105	74 - 120
1,2-Dichloroethane	10.0	11.1		ug/L		111	68 - 133
1,1-Dichloroethene	10.0	10.9		ug/L		109	65 - 127
1,2-Dichloropropane	10.0	9.13		ug/L		91	78 - 127
Diethyl ether	10.0	10.9		ug/L		109	72 - 125
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120
2-Hexanone	20.0	16.0		ug/L		80	28 - 169
Isopropylbenzene	10.0	10.4		ug/L		104	80 - 128
Methyl acetate	20.0	14.7		ug/L		73	63 - 137
Methylcyclohexane	10.0	9.23		ug/L		92	63 - 141

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

Lab Sample ID: LCS 240-314918/4
Matrix: Water
Analysis Batch: 314918

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	10.0	10.4		ug/L		104	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	16.2		ug/L		81	53 - 144
Methyl tert-butyl ether	10.0	9.55		ug/L		96	73 - 120
Styrene	10.0	9.66		ug/L		97	80 - 121
1,1,2,2-Tetrachloroethane	10.0	8.65		ug/L		86	58 - 122
Tetrachloroethene	10.0	10.1		ug/L		101	80 - 122
Toluene	10.0	9.73		ug/L		97	78 - 120
trans-1,2-Dichloroethene	10.0	10.9		ug/L		109	74 - 124
trans-1,3-Dichloropropene	10.0	8.15		ug/L		82	67 - 120
1,2,4-Trichlorobenzene	10.0	8.19		ug/L		82	34 - 141
1,1,1-Trichloroethane	10.0	11.6		ug/L		116	64 - 147
1,1,2-Trichloroethane	10.0	9.29		ug/L		93	76 - 121
Trichloroethene	10.0	10.5		ug/L		105	76 - 124
Trichlorofluoromethane	10.0	15.7		ug/L		157	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	13.1		ug/L		131	65 - 144
1,2,4-Trimethylbenzene	10.0	9.45		ug/L		94	80 - 120
1,3,5-Trimethylbenzene	10.0	9.54		ug/L		95	79 - 120
Vinyl chloride	10.0	9.57		ug/L		96	65 - 124
Xylenes, Total	20.0	20.3		ug/L		101	80 - 120
1,4-Dioxane	200	115		ug/L		57	35 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*69 - 120*
Dibromofluoromethane (Surr)	*101*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*103*		*61 - 138*
Toluene-d8 (Surr)	*98*		*73 - 120*

Lab Sample ID: 240-91339-E-9 MS
Matrix: Water
Analysis Batch: 314918

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
Acetone	10	U	20.0	12.0		ug/L		60	19 - 133
Benzene	1.9		10.0	10.3		ug/L		84	69 - 127
Bromodichloromethane	1.0	U	10.0	8.92		ug/L		89	75 - 128
Bromoform	1.0	U	10.0	7.69		ug/L		77	61 - 135
Bromomethane	1.0	U	10.0	4.25		ug/L		43	10 - 148
2-Butanone (MEK)	10	U	20.0	14.0		ug/L		70	34 - 153
Carbon disulfide	5.0	U	10.0	10.4		ug/L		104	46 - 143
Carbon tetrachloride	1.0	U	10.0	9.80		ug/L		98	53 - 175
Chlorobenzene	1.0	U	10.0	9.57		ug/L		96	76 - 120
Chloroethane	1.0	U	10.0	3.71		ug/L		37	10 - 141
Chloroform	1.0	U	10.0	9.86		ug/L		99	74 - 125
Chloromethane	1.0	U F1	10.0	3.28	F1	ug/L		33	34 - 127
cis-1,2-Dichloroethene	0.44	J	10.0	9.66		ug/L		92	69 - 127
cis-1,3-Dichloropropene	1.0	U	10.0	7.65		ug/L		77	68 - 120
Cyclohexane	1.0	U	10.0	7.85		ug/L		78	56 - 135

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

Lab Sample ID: 240-91339-E-9 MS
Matrix: Water
Analysis Batch: 314918

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
Dibromochloromethane	1.0	U	10.0	8.72		ug/L		87	62 - 131
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	6.72		ug/L		67	48 - 130
1,2-Dibromoethane	1.0	U	10.0	8.99		ug/L		90	73 - 121
1,2-Dichlorobenzene	1.0	U	10.0	8.43		ug/L		84	70 - 120
1,3-Dichlorobenzene	1.0	U	10.0	8.06		ug/L		81	71 - 120
1,4-Dichlorobenzene	1.0	U	10.0	8.33		ug/L		83	72 - 120
Dichlorodifluoromethane	1.0	U	10.0	7.51		ug/L		75	45 - 130
1,1-Dichloroethane	1.0	U	10.0	9.44		ug/L		94	69 - 122
1,2-Dichloroethane	1.0	U	10.0	10.2		ug/L		102	64 - 138
1,1-Dichloroethene	1.0	U	10.0	9.73		ug/L		97	62 - 127
1,2-Dichloropropane	1.0	U	10.0	8.64		ug/L		86	72 - 131
Ethylbenzene	1.0	U	10.0	9.17		ug/L		92	72 - 121
2-Hexanone	10	U	20.0	17.8		ug/L		89	21 - 184
Isopropylbenzene	1.0	U	10.0	8.86		ug/L		89	70 - 132
Methyl acetate	10	U	20.0	12.5		ug/L		63	52 - 139
Methylcyclohexane	1.0	U	10.0	7.52		ug/L		75	46 - 139
Methylene Chloride	5.0	U	10.0	8.84		ug/L		88	52 - 137
4-Methyl-2-pentanone (MIBK)	10	U	20.0	16.3		ug/L		81	53 - 147
Methyl tert-butyl ether	1.0	U	10.0	8.82		ug/L		88	67 - 125
Styrene	1.0	U	10.0	8.69		ug/L		87	74 - 125
1,1,2,2-Tetrachloroethane	1.0	U	10.0	8.35		ug/L		84	51 - 123
Tetrachloroethene	1.0	U	10.0	8.88		ug/L		89	69 - 126
Toluene	1.0	U	10.0	9.23		ug/L		92	69 - 125
trans-1,2-Dichloroethene	1.0	U	10.0	9.68		ug/L		97	66 - 131
trans-1,3-Dichloropropene	1.0	U	10.0	7.38		ug/L		74	59 - 120
1,2,4-Trichlorobenzene	1.0	U	10.0	7.31		ug/L		73	26 - 138
1,1,1-Trichloroethane	1.0	U	10.0	9.92		ug/L		99	57 - 156
1,1,2-Trichloroethane	1.0	U	10.0	9.18		ug/L		92	68 - 127
Trichloroethene	1.0	U	10.0	9.15		ug/L		92	68 - 129
Trichlorofluoromethane	1.0	U	10.0	10.5		ug/L		105	28 - 172
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	10.7		ug/L		107	58 - 137
Vinyl chloride	1.0	U F2	10.0	8.59		ug/L		86	55 - 123
Xylenes, Total	2.0	U	20.0	18.4		ug/L		92	71 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*
Dibromofluoromethane (Surr)	*97*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*95*		*61 - 138*
Toluene-d8 (Surr)	*99*		*73 - 120*

Lab Sample ID: 240-91339-F-9 MSD
Matrix: Water
Analysis Batch: 314918

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
Acetone	10	U	20.0	9.67	J	ug/L		48	19 - 133	21	35
Benzene	1.9		10.0	10.6		ug/L		87	69 - 127	3	10

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

Lab Sample ID: 240-91339-F-9 MSD
Matrix: Water
Analysis Batch: 314918

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
Bromodichloromethane	1.0	U	10.0	8.81		ug/L		88	75 - 128	1	13
Bromoform	1.0	U	10.0	7.62		ug/L		76	61 - 135	1	13
Bromomethane	1.0	U	10.0	4.91		ug/L		49	10 - 148	14	35
2-Butanone (MEK)	10	U	20.0	13.5		ug/L		68	34 - 153	4	23
Carbon disulfide	5.0	U	10.0	10.5		ug/L		105	46 - 143	1	18
Carbon tetrachloride	1.0	U	10.0	10.1		ug/L		101	53 - 175	3	17
Chlorobenzene	1.0	U	10.0	9.47		ug/L		95	76 - 120	1	12
Chloroethane	1.0	U	10.0	4.84		ug/L		48	10 - 141	27	35
Chloroform	1.0	U	10.0	9.66		ug/L		97	74 - 125	2	11
Chloromethane	1.0	U F1	10.0	3.96		ug/L		40	34 - 127	19	25
cis-1,2-Dichloroethene	0.44	J	10.0	9.96		ug/L		95	69 - 127	3	11
cis-1,3-Dichloropropene	1.0	U	10.0	7.56		ug/L		76	68 - 120	1	13
Cyclohexane	1.0	U	10.0	7.82		ug/L		78	56 - 135	0	35
Dibromochloromethane	1.0	U	10.0	8.61		ug/L		86	62 - 131	1	15
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	6.60		ug/L		66	48 - 130	2	31
1,2-Dibromoethane	1.0	U	10.0	8.76		ug/L		88	73 - 121	3	12
1,2-Dichlorobenzene	1.0	U	10.0	8.33		ug/L		83	70 - 120	1	19
1,3-Dichlorobenzene	1.0	U	10.0	8.04		ug/L		80	71 - 120	0	18
1,4-Dichlorobenzene	1.0	U	10.0	8.04		ug/L		80	72 - 120	4	17
Dichlorodifluoromethane	1.0	U	10.0	8.91		ug/L		89	45 - 130	17	34
1,1-Dichloroethane	1.0	U	10.0	9.68		ug/L		97	69 - 122	2	11
1,2-Dichloroethane	1.0	U	10.0	9.89		ug/L		99	64 - 138	3	11
1,1-Dichloroethene	1.0	U	10.0	9.90		ug/L		99	62 - 127	2	14
1,2-Dichloropropane	1.0	U	10.0	9.10		ug/L		91	72 - 131	5	12
Ethylbenzene	1.0	U	10.0	9.16		ug/L		92	72 - 121	0	15
2-Hexanone	10	U	20.0	16.1		ug/L		80	21 - 184	11	12
Isopropylbenzene	1.0	U	10.0	8.80		ug/L		88	70 - 132	1	16
Methyl acetate	10	U	20.0	12.2		ug/L		61	52 - 139	3	14
Methylcyclohexane	1.0	U	10.0	7.42		ug/L		74	46 - 139	1	35
Methylene Chloride	5.0	U	10.0	8.97		ug/L		90	52 - 137	1	12
4-Methyl-2-pentanone (MIBK)	10	U	20.0	15.3		ug/L		76	53 - 147	6	16
Methyl tert-butyl ether	1.0	U	10.0	8.62		ug/L		86	67 - 125	2	12
Styrene	1.0	U	10.0	8.46		ug/L		85	74 - 125	3	14
1,1,2,2-Tetrachloroethane	1.0	U	10.0	8.02		ug/L		80	51 - 123	4	17
Tetrachloroethene	1.0	U	10.0	8.92		ug/L		89	69 - 126	0	18
Toluene	1.0	U	10.0	8.81		ug/L		88	69 - 125	5	14
trans-1,2-Dichloroethene	1.0	U	10.0	9.76		ug/L		98	66 - 131	1	11
trans-1,3-Dichloropropene	1.0	U	10.0	7.06		ug/L		71	59 - 120	4	14
1,2,4-Trichlorobenzene	1.0	U	10.0	7.27		ug/L		73	26 - 138	1	35
1,1,1-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	57 - 156	5	13
1,1,2-Trichloroethane	1.0	U	10.0	8.86		ug/L		89	68 - 127	4	11
Trichloroethene	1.0	U	10.0	8.99		ug/L		90	68 - 129	2	12
Trichlorofluoromethane	1.0	U	10.0	12.9		ug/L		129	28 - 172	21	26
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	10.4		ug/L		104	58 - 137	3	35
Vinyl chloride	1.0	U F2	10.0	9.87	F2	ug/L		99	55 - 123	14	12
Xylenes, Total	2.0	U	20.0	17.6		ug/L		88	71 - 122	4	14

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

Lab Sample ID: 240-91339-F-9 MSD
Matrix: Water
Analysis Batch: 314918

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

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*69 - 120*
Dibromofluoromethane (Surr)	*102*		*69 - 124*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 138*
Toluene-d8 (Surr)	*99*		*73 - 120*

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

Lab Sample ID: MB 240-314572/5
Matrix: Water
Analysis Batch: 314572

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	0.24	ug/L			02/13/18 11:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*63 - 125*		*02/13/18 11:58*	*1*

Lab Sample ID: LCS 240-314572/4
Matrix: Water
Analysis Batch: 314572

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	7.91		ug/L		79	59 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*114*		*63 - 125*

Lab Sample ID: 500-140728-B-11 MS
Matrix: Water
Analysis Batch: 314572

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	8.15		ug/L		82	52 - 129

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*124*		*63 - 125*

Lab Sample ID: 500-140728-B-11 MSD
Matrix: Water
Analysis Batch: 314572

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	8.56		ug/L		86	52 - 129	5	13

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*126*	*X*	*63 - 125*

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

Lab Sample ID: MB 240-314747/5
Matrix: Water
Analysis Batch: 314747

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	0.24	ug/L			02/14/18 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*63 - 125*		*02/14/18 11:45*	*1*

Lab Sample ID: LCS 240-314747/4
Matrix: Water
Analysis Batch: 314747

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	8.92		ug/L		89	59 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*63 - 125*

Lab Sample ID: 500-140728-C-2 MS
Matrix: Water
Analysis Batch: 314747

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	430		50.0	459	4	ug/L		61	52 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*110*		*63 - 125*

Lab Sample ID: 500-140728-C-2 MSD
Matrix: Water
Analysis Batch: 314747

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	430		50.0	461	4	ug/L		64	52 - 129	0	13

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*113*		*63 - 125*

Lab Sample ID: MB 240-314896/5
Matrix: Water
Analysis Batch: 314896

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	0.24	ug/L			02/15/18 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*63 - 125*		*02/15/18 11:07*	*1*

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

Lab Sample ID: LCS 240-314896/4
Matrix: Water
Analysis Batch: 314896

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	9.28		ug/L		93	59 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*113*		*63 - 125*

Lab Sample ID: 240-91361-D-11 MS
Matrix: Water
Analysis Batch: 314896

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	8.15		ug/L		82	52 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*121*		*63 - 125*

Lab Sample ID: 240-91361-D-11 MSD
Matrix: Water
Analysis Batch: 314896

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	8.96		ug/L		90	52 - 129	10	13

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*119*		*63 - 125*

GC/MS VOA

Analysis Batch: 314572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-91358-1	MW-65-020618	Total/NA	Water	8260B SIM	
240-91358-2	MW-44-020618	Total/NA	Water	8260B SIM	
240-91358-3	MW-22-020618	Total/NA	Water	8260B SIM	
240-91358-4	MW-62-020618	Total/NA	Water	8260B SIM	
240-91358-5	MW-15-59D-020618	Total/NA	Water	8260B SIM	
MB 240-314572/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-314572/4	Lab Control Sample	Total/NA	Water	8260B SIM	
500-140728-B-11 MS	Matrix Spike	Total/NA	Water	8260B SIM	
500-140728-B-11 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 314579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-91358-4	MW-62-020618	Total/NA	Water	8260B	
240-91358-5	MW-15-59D-020618	Total/NA	Water	8260B	
240-91358-6	MW-15-60D-020618	Total/NA	Water	8260B	
240-91358-7	MW-15-61D-020618	Total/NA	Water	8260B	
MB 240-314579/6	Method Blank	Total/NA	Water	8260B	
LCS 240-314579/4	Lab Control Sample	Total/NA	Water	8260B	
240-91308-B-3 MS	Matrix Spike	Total/NA	Water	8260B	
240-91308-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 314747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-91358-6	MW-15-60D-020618	Total/NA	Water	8260B SIM	
240-91358-7	MW-15-61D-020618	Total/NA	Water	8260B SIM	
240-91358-8	MW-23-020618	Total/NA	Water	8260B SIM	
240-91358-10	MW-28-020718	Total/NA	Water	8260B SIM	
240-91358-11	MW-58-020718	Total/NA	Water	8260B SIM	
240-91358-12	MW-55-020718	Total/NA	Water	8260B SIM	
240-91358-13	MW-54-020718	Total/NA	Water	8260B SIM	
240-91358-14	MW-53-020718	Total/NA	Water	8260B SIM	
240-91358-15	MW-63-020718	Total/NA	Water	8260B SIM	
240-91358-16	PW-16-01-020718	Total/NA	Water	8260B SIM	
MB 240-314747/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-314747/4	Lab Control Sample	Total/NA	Water	8260B SIM	
500-140728-C-2 MS	Matrix Spike	Total/NA	Water	8260B SIM	
500-140728-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 314760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-91358-1	MW-65-020618	Total/NA	Water	8260B	
240-91358-3	MW-22-020618	Total/NA	Water	8260B	
240-91358-9	TRIP BLANK	Total/NA	Water	8260B	
240-91358-10	MW-28-020718	Total/NA	Water	8260B	
240-91358-11	MW-58-020718	Total/NA	Water	8260B	
240-91358-12	MW-55-020718	Total/NA	Water	8260B	
240-91358-13	MW-54-020718	Total/NA	Water	8260B	
240-91358-14	MW-53-020718	Total/NA	Water	8260B	
240-91358-15	MW-63-020718	Total/NA	Water	8260B	
240-91358-16	PW-16-01-020718	Total/NA	Water	8260B	
MB 240-314760/6	Method Blank	Total/NA	Water	8260B	

GC/MS VOA (Continued)

Analysis Batch: 314760 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-314760/4	Lab Control Sample	Total/NA	Water	8260B	
240-91314-B-3 MS	Matrix Spike	Total/NA	Water	8260B	
240-91314-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 314896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-91358-17	TW-16-01-020718	Total/NA	Water	8260B SIM	
MB 240-314896/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-314896/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-91361-D-11 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-91361-D-11 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Analysis Batch: 314918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-91358-2	MW-44-020618	Total/NA	Water	8260B	
240-91358-8	MW-23-020618	Total/NA	Water	8260B	
240-91358-17	TW-16-01-020718	Total/NA	Water	8260B	
MB 240-314918/6	Method Blank	Total/NA	Water	8260B	
LCS 240-314918/4	Lab Control Sample	Total/NA	Water	8260B	
240-91339-E-9 MS	Matrix Spike	Total/NA	Water	8260B	
240-91339-F-9 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Client Sample ID: MW-65-020618
Lab Sample ID: 240-91358-1
Date Collected: 02/06/18 17:02
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	314760	02/14/18 18:20	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314572	02/13/18 20:29	SAM	TAL CAN

Client Sample ID: MW-44-020618
Lab Sample ID: 240-91358-2
Date Collected: 02/06/18 16:07
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		6.67	314918	02/15/18 15:12	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314572	02/13/18 20:54	SAM	TAL CAN

Client Sample ID: MW-22-020618
Lab Sample ID: 240-91358-3
Date Collected: 02/06/18 15:02
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		142.86	314760	02/14/18 19:03	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314572	02/13/18 21:20	SAM	TAL CAN

Client Sample ID: MW-62-020618
Lab Sample ID: 240-91358-4
Date Collected: 02/06/18 12:56
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314579	02/13/18 19:31	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	314572	02/13/18 21:45	SAM	TAL CAN

Client Sample ID: MW-15-59D-020618
Lab Sample ID: 240-91358-5
Date Collected: 02/06/18 12:12
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314579	02/13/18 19:54	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	314572	02/13/18 22:11	SAM	TAL CAN

Client Sample ID: MW-15-60D-020618
Lab Sample ID: 240-91358-6
Date Collected: 02/06/18 10:27
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314579	02/13/18 20:16	LEE	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-15-60D-020618
Lab Sample ID: 240-91358-6
Date Collected: 02/06/18 10:27
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 17:50	SAM	TAL CAN

Client Sample ID: MW-15-61D-020618
Lab Sample ID: 240-91358-7
Date Collected: 02/06/18 14:32
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314579	02/13/18 20:39	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 18:16	SAM	TAL CAN

Client Sample ID: MW-23-020618
Lab Sample ID: 240-91358-8
Date Collected: 02/06/18 16:02
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	314918	02/15/18 15:33	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		10	314747	02/14/18 18:42	SAM	TAL CAN

Client Sample ID: TRIP BLANK
Lab Sample ID: 240-91358-9
Date Collected: 02/06/18 00:00
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314760	02/14/18 19:47	LRW	TAL CAN

Client Sample ID: MW-28-020718
Lab Sample ID: 240-91358-10
Date Collected: 02/07/18 12:57
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314760	02/14/18 20:09	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 19:08	SAM	TAL CAN

Client Sample ID: MW-58-020718
Lab Sample ID: 240-91358-11
Date Collected: 02/07/18 16:57
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314760	02/14/18 20:32	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 19:35	SAM	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: MW-55-020718
Lab Sample ID: 240-91358-12
Date Collected: 02/07/18 13:52
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314760	02/14/18 20:54	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 20:00	SAM	TAL CAN

Client Sample ID: MW-54-020718
Lab Sample ID: 240-91358-13
Date Collected: 02/07/18 15:07
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314760	02/14/18 21:16	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 20:26	SAM	TAL CAN

Client Sample ID: MW-53-020718
Lab Sample ID: 240-91358-14
Date Collected: 02/07/18 16:02
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314760	02/14/18 21:37	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 20:52	SAM	TAL CAN

Client Sample ID: MW-63-020718
Lab Sample ID: 240-91358-15
Date Collected: 02/07/18 17:05
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	314760	02/14/18 21:59	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 21:18	SAM	TAL CAN

Client Sample ID: PW-16-01-020718
Lab Sample ID: 240-91358-16
Date Collected: 02/07/18 15:55
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		14.28	314760	02/14/18 22:22	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	314747	02/14/18 21:44	SAM	TAL CAN

Client Sample ID: TW-16-01-020718
Lab Sample ID: 240-91358-17
Date Collected: 02/07/18 14:55
Matrix: Water
Date Received: 02/09/18 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		33.33	314918	02/15/18 15:55	LRW	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Client Sample ID: TW-16-01-020718
Date Collected: 02/07/18 14:55
Date Received: 02/09/18 09:20

Lab Sample ID: 240-91358-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	314896	02/15/18 11:58	SAM	TAL CAN

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

TestAmerica Job ID: 240-91358-1

Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18 *
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-18
Kansas	NELAP	7	E-10336	01-31-18 *
Kentucky (UST)	State Program	4	58	02-23-18 *
Kentucky (WW)	State Program	4	98016	12-31-18
Minnesota	NELAP	5	039-999-348	12-31-18
Minnesota (Petrofund)	State Program	1	3506	07-31-18
Nevada	State Program	9	OH-000482008A	07-31-18
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18 *
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-18 *
Pennsylvania	NELAP	3	68-00340	08-31-18
Texas	NELAP	6	T104704517-17-9	08-31-18
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-18
Washington	State Program	10	C971	01-12-19
West Virginia DEP	State Program	3	210	12-31-18

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

MICHIGAN 190

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager: Kris Hinskey	Site Contact: Angela DeGrandis	Lab Contact: Denise Pohl	COC No:
Company Name: Arcadis				
Address: 28550 Cabot Drive, Suite 500	Telephone: 248-994-2240	Telephone: 734-320-0065	Telephone: 330-966-9789	of COCs
City/State/Zip: Novi, MI, 48377	Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time	Analyses	For lab use only
Phone: 248-994-2240		TAT if different from below: ☐ 3 weeks ☑ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day; 10 day		Walk-in client; Lab sampling
Project Name: Ford LTP				
Project Number: MI001386.0001.20000	Method of Shipment/Carrier:			Job/SDG No:
PO # MI001386.0001.20000	Shipping/Tracking No:			

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOCs 8260B	1,4-Dioxane 8260B SIM	Sample Specific Notes / Special Instructions:
MW-65_~~02018~~ 020618	2/6/18	1702		X						6					N	G	X	X	
MW-44_020618		1607		X						6							X	X	
MW-22_020618		1502		X						6							X	X	
MW-62_020618		1256		X						6							X	X	
MW-15-59D_020618		1212		X						5							X	X	
MW-15-60D_020618		1027		X						6							X	X	
MW-15-61D_020618		1432		X						6							X	X	
MW-23_020618		1602		X						6							X	X	
TRIP BLANK	—	—		X						1					-	-	X	X	
MW-28_020718	2/7/18	1257		X						6					N	G	X	X	

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

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

Special Instructions/QC Requirements & Comments:

Level IV Reporting

Submit all results through Cadena at jim.tomalia@cadena.com. Cadena #E203728

Lab#:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Ashley Rist	ARCADIS	2/8/18 1010		TAL	2/8/18 10:10
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	2/8/18 13:04		TAL	2/9/18 920
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1.6/1.3 2.0/1.7 3.4/3.1

MICHIGAN 190

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager: Kris Hinskey	Site Contact: Angela DeGrandis	Lab Contact: Denise Pohl	COC No:
Company Name: Arcadis	Telephone: 248-994-2240	Telephone: 734-320-0065	Telephone: 330-966-9789	of COCs
Address: 28550 Cabot Drive, Suite 500	Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time	Analyses	For lab use only
City/State/Zip: Novi, MI, 48377		TAT if different from below: ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client
Phone: 248-994-2240		10 day		Lab sampling
Project Name: Ford LTP	Method of Shipment/Carrier:			Job/SDG No.
Project Number: MI001386.0001.20000	Shipping/Tracking No:			
PO # MI001386.0001.20000				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOCs 8260B	1,4-Dioxane 8260B SIM	Sample Specific Notes / Special Instructions:
MW-58-020718	2/7/18	1657		X						6					N	G	X	X	
MW-55-020718		1352		X						6					N	G	X	X	
MW-54-020718		1507		X						6					N	G	X	X	
MW-53-020718		1602		X						6					N	G	X	X	
~~TRIPBLANK-02~~	—	—		X						1					—	—	X	X	
MW-63-020718		1705		X						6					N	G	X	X	
PW-16-01-020718		1555		X						6					N	G	X	X	
TW-16-01-020718		1455		X						6					N	G	X	X	

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

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

Special Instructions/QC Requirements & Comments:

Submit all results through Cadena at jim.tomalia@cadena.com, Cadena #E203728

Level IV Reporting

Lab#:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Ashley Reid	ARCADIS	2/8/18 1010		TAL	2/8/18 1010
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	2/8/18 1304		TAL	2/9/18 920
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 41358**
Canton Facility

Client Arcadis Site Name _____ Cooler unpacked by: DSD

Cooler Received on 2/9/18 Opened on 2/9/18

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

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

TestAmerica Cooler # _____ 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-8 (CF **-0.3** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN # 627 (CF **-1.3**°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 each	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# **HC730269**
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 # B729401VB	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 _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) MW-15-001-020618 were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 91358

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	8	1.6	1.3	ICE
6	6	2.0	1.7	6
		3.4	3.1	