

APPENDIX J-2

2017 ANALYTICAL DATA REPORTS AND DATA VALIDATION REVIEW MEMOS

June 26, 2017

PES Environmental, Inc.- WA

Sample Delivery Group: L916678
Samples Received: 06/16/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



SCL-MW105-061517 L916678-01 GW

Collected by Shannon McKernan
 Collected date/time 06/15/17 08:30
 Received date/time 06/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 03:02	06/22/17 03:02	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	10	06/26/17 02:21	06/26/17 02:21	ACG

1 Cp

2 Tc

3 Ss

MW126-061517 L916678-02 GW

Collected by Shannon McKernan
 Collected date/time 06/15/17 08:45
 Received date/time 06/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 03:25	06/22/17 03:25	BMB

4 Cn

5 Sr

6 Qc

RMW-2-061517 L916678-03 GW

Collected by Shannon McKernan
 Collected date/time 06/15/17 10:30
 Received date/time 06/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 03:48	06/22/17 03:48	BMB

7 Gl

8 Al

MW102-061517 L916678-04 GW

Collected by Shannon McKernan
 Collected date/time 06/15/17 10:54
 Received date/time 06/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 04:10	06/22/17 04:10	BMB

9 Sc

MW124-061517 L916678-05 GW

Collected by Shannon McKernan
 Collected date/time 06/15/17 12:40
 Received date/time 06/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 04:33	06/22/17 04:33	BMB



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<u>JO</u>	1.05	25.0	1	06/22/2017 03:02	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 03:02	WG991349
Benzene	208		0.896	5.00	10	06/26/2017 02:21	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 03:02	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 03:02	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 03:02	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 03:02	WG991349
Bromomethane	U	<u>JO</u>	0.157	2.50	1	06/22/2017 03:02	WG991349
n-Butylbenzene	4.77		0.143	0.500	1	06/22/2017 03:02	WG991349
sec-Butylbenzene	4.25		0.134	0.500	1	06/22/2017 03:02	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 03:02	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 03:02	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 03:02	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 03:02	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 03:02	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 03:02	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 03:02	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 03:02	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 03:02	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 03:02	WG991349
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	0.325	2.50	1	06/22/2017 03:02	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 03:02	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 03:02	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 03:02	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 03:02	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 03:02	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 03:02	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 03:02	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 03:02	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 03:02	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 03:02	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 03:02	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 03:02	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 03:02	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 03:02	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 03:02	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 03:02	WG991349
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00	1	06/22/2017 03:02	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 03:02	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 03:02	WG991349
Ethylbenzene	109		0.158	0.500	1	06/22/2017 03:02	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 03:02	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 03:02	WG991349
n-Hexane	65.1		0.305	5.00	1	06/22/2017 03:02	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 03:02	WG991349
Isopropylbenzene	67.3		0.126	0.500	1	06/22/2017 03:02	WG991349
p-Isopropyltoluene	1.08		0.138	0.500	1	06/22/2017 03:02	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 03:02	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 03:02	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 03:02	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 03:02	WG991349
Naphthalene	5.20		0.174	2.50	1	06/22/2017 03:02	WG991349
n-Propylbenzene	126		0.162	0.500	1	06/22/2017 03:02	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 03:02	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 03:02	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 03:02	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 06/15/17 08:30

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 03:02	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 03:02	WG991349
Toluene	14.3		0.412	0.500	1	06/22/2017 03:02	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 03:02	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 03:02	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 03:02	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 03:02	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 03:02	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 03:02	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 03:02	WG991349
1,2,4-Trimethylbenzene	0.562		0.123	0.500	1	06/22/2017 03:02	WG991349
1,2,3-Trimethylbenzene	9.29		0.0739	0.500	1	06/22/2017 03:02	WG991349
1,3,5-Trimethylbenzene	3.45		0.124	0.500	1	06/22/2017 03:02	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 03:02	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 03:02	WG991349
Xylenes, Total	40.8		0.316	1.50	1	06/22/2017 03:02	WG991349
(S) Toluene-d8	91.8			80.0-120		06/22/2017 03:02	WG991349
(S) Toluene-d8	101			80.0-120		06/26/2017 02:21	WG991349
(S) Dibromofluoromethane	103			76.0-123		06/22/2017 03:02	WG991349
(S) Dibromofluoromethane	101			76.0-123		06/26/2017 02:21	WG991349
(S) 4-Bromofluorobenzene	97.0			80.0-120		06/22/2017 03:02	WG991349
(S) 4-Bromofluorobenzene	107			80.0-120		06/26/2017 02:21	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<u>JO</u>	1.05	25.0	1	06/22/2017 03:25	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 03:25	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 03:25	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 03:25	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 03:25	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 03:25	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 03:25	WG991349
Bromomethane	U	<u>JO</u>	0.157	2.50	1	06/22/2017 03:25	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 03:25	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 03:25	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 03:25	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 03:25	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 03:25	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 03:25	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 03:25	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 03:25	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 03:25	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 03:25	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 03:25	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 03:25	WG991349
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	0.325	2.50	1	06/22/2017 03:25	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 03:25	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 03:25	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 03:25	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 03:25	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 03:25	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 03:25	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 03:25	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 03:25	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 03:25	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 03:25	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 03:25	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 03:25	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 03:25	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 03:25	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 03:25	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 03:25	WG991349
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00	1	06/22/2017 03:25	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 03:25	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 03:25	WG991349
Ethylbenzene	0.179	<u>J</u>	0.158	0.500	1	06/22/2017 03:25	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 03:25	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 03:25	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 03:25	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 03:25	WG991349
Isopropylbenzene	0.245	<u>J</u>	0.126	0.500	1	06/22/2017 03:25	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 03:25	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 03:25	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 03:25	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 03:25	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 03:25	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 03:25	WG991349
n-Propylbenzene	0.636		0.162	0.500	1	06/22/2017 03:25	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 03:25	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 03:25	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 03:25	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 03:25	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 03:25	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 03:25	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 03:25	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 03:25	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 03:25	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 03:25	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 03:25	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 03:25	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 03:25	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 03:25	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 03:25	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 03:25	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 03:25	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 03:25	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 03:25	WG991349
(S) Toluene-d8	98.7			80.0-120		06/22/2017 03:25	WG991349
(S) Dibromofluoromethane	101			76.0-123		06/22/2017 03:25	WG991349
(S) 4-Bromofluorobenzene	99.3			80.0-120		06/22/2017 03:25	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.48	J JO	1.05	25.0	1	06/22/2017 03:48	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 03:48	WG991349
Benzene	0.694		0.0896	0.500	1	06/22/2017 03:48	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 03:48	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 03:48	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 03:48	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 03:48	WG991349
Bromomethane	U	JO	0.157	2.50	1	06/22/2017 03:48	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 03:48	WG991349
sec-Butylbenzene	0.180	J	0.134	0.500	1	06/22/2017 03:48	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 03:48	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 03:48	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 03:48	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 03:48	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 03:48	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 03:48	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 03:48	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 03:48	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 03:48	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 03:48	WG991349
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/22/2017 03:48	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 03:48	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 03:48	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 03:48	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 03:48	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 03:48	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 03:48	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 03:48	WG991349
1,2-Dichloroethane	0.199	J	0.108	0.500	1	06/22/2017 03:48	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 03:48	WG991349
cis-1,2-Dichloroethene	0.682		0.0933	0.500	1	06/22/2017 03:48	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 03:48	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 03:48	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 03:48	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 03:48	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 03:48	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 03:48	WG991349
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/22/2017 03:48	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 03:48	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 03:48	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 03:48	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 03:48	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 03:48	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 03:48	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 03:48	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 03:48	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 03:48	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 03:48	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 03:48	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 03:48	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 03:48	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 03:48	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 03:48	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 03:48	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 03:48	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 03:48	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 03:48	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 03:48	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 03:48	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 03:48	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 03:48	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 03:48	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 03:48	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 03:48	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 03:48	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 03:48	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 03:48	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 03:48	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 03:48	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 03:48	WG991349
Vinyl chloride	0.609		0.118	0.500	1	06/22/2017 03:48	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 03:48	WG991349
(S) Toluene-d8	101			80.0-120		06/22/2017 03:48	WG991349
(S) Dibromofluoromethane	102			76.0-123		06/22/2017 03:48	WG991349
(S) 4-Bromofluorobenzene	98.4			80.0-120		06/22/2017 03:48	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<u>JO</u>	1.05	25.0	1	06/22/2017 04:10	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 04:10	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 04:10	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 04:10	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 04:10	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 04:10	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 04:10	WG991349
Bromomethane	U	<u>JO</u>	0.157	2.50	1	06/22/2017 04:10	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 04:10	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 04:10	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 04:10	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 04:10	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 04:10	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 04:10	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 04:10	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 04:10	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 04:10	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 04:10	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 04:10	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 04:10	WG991349
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	0.325	2.50	1	06/22/2017 04:10	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 04:10	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 04:10	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 04:10	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 04:10	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 04:10	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 04:10	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 04:10	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 04:10	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 04:10	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 04:10	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 04:10	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 04:10	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 04:10	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 04:10	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 04:10	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 04:10	WG991349
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00	1	06/22/2017 04:10	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 04:10	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 04:10	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 04:10	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 04:10	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 04:10	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 04:10	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 04:10	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 04:10	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 04:10	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 04:10	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 04:10	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 04:10	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 04:10	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 04:10	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 04:10	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 04:10	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 04:10	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 04:10	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 04:10	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 04:10	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 04:10	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 04:10	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 04:10	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 04:10	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 04:10	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 04:10	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 04:10	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 04:10	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 04:10	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 04:10	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 04:10	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 04:10	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 04:10	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 04:10	WG991349
(S) Toluene-d8	101			80.0-120		06/22/2017 04:10	WG991349
(S) Dibromofluoromethane	101			76.0-123		06/22/2017 04:10	WG991349
(S) 4-Bromofluorobenzene	99.5			80.0-120		06/22/2017 04:10	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<u>JO</u>	1.05	25.0	1	06/22/2017 04:33	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 04:33	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 04:33	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 04:33	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 04:33	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 04:33	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 04:33	WG991349
Bromomethane	U	<u>JO</u>	0.157	2.50	1	06/22/2017 04:33	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 04:33	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 04:33	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 04:33	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 04:33	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 04:33	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 04:33	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 04:33	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 04:33	WG991349
Chloroform	0.614		0.0860	0.500	1	06/22/2017 04:33	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 04:33	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 04:33	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 04:33	WG991349
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	0.325	2.50	1	06/22/2017 04:33	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 04:33	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 04:33	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 04:33	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 04:33	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 04:33	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 04:33	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 04:33	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 04:33	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 04:33	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 04:33	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 04:33	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 04:33	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 04:33	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 04:33	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 04:33	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 04:33	WG991349
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00	1	06/22/2017 04:33	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 04:33	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 04:33	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 04:33	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 04:33	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 04:33	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 04:33	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 04:33	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 04:33	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 04:33	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 04:33	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 04:33	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 04:33	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 04:33	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 04:33	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 04:33	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 04:33	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 04:33	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 04:33	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 04:33	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 04:33	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 04:33	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 04:33	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 04:33	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 04:33	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 04:33	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 04:33	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 04:33	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 04:33	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 04:33	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 04:33	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 04:33	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 04:33	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 04:33	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 04:33	WG991349
(S) Toluene-d8	98.0			80.0-120		06/22/2017 04:33	WG991349
(S) Dibromofluoromethane	101			76.0-123		06/22/2017 04:33	WG991349
(S) 4-Bromofluorobenzene	99.3			80.0-120		06/22/2017 04:33	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3228522-3 06/22/17 01:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
2,2-Dichloropropane	U		0.0929	0.500
n-Hexane	U		0.305	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3228522-3 06/22/17 01:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Iodomethane	U		0.377	10.0
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
Tetrachloroethene	U		0.199	0.500
Vinyl acetate	U		0.645	5.00
Toluene	U		0.412	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,2,4-Trimethylbenzene	U		0.123	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	100			80.0-120
(S) Dibromofluoromethane	101			76.0-123
(S) 4-Bromofluorobenzene	98.9			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228522-1 06/22/17 00:01 • (LCSD) R3228522-2 06/22/17 00:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	180	167	144	133	10.0-160			8.03	23
Acrylonitrile	125	133	129	106	104	60.0-142			2.81	20
Benzene	25.0	24.8	25.8	99.2	103	69.0-123			4.07	20
trans-1,4-Dichloro-2-butene	25.0	21.2	21.5	84.7	86.0	55.0-134			1.45	20
Bromobenzene	25.0	22.5	23.5	90.0	93.8	79.0-120			4.14	20
Bromodichloromethane	25.0	25.3	26.1	101	105	76.0-120			3.06	20
Bromochloromethane	25.0	25.4	26.1	102	104	76.0-122			2.58	20
Bromoform	25.0	23.5	24.0	93.9	96.0	67.0-132			2.14	20
Bromomethane	25.0	17.8	18.3	71.3	73.2	18.0-160			2.62	20
n-Hexane	25.0	26.1	27.5	104	110	56.0-124			5.10	20
Iodomethane	125	113	127	90.3	102	57.0-140			11.9	20
n-Butylbenzene	25.0	22.7	24.1	90.7	96.4	72.0-126			6.19	20
sec-Butylbenzene	25.0	22.1	23.5	88.2	94.1	74.0-121			6.48	20
tert-Butylbenzene	25.0	22.4	23.3	89.6	93.4	75.0-122			4.13	20
Carbon disulfide	25.0	28.5	30.5	114	122	55.0-127			6.66	20
Carbon tetrachloride	25.0	24.9	27.3	99.4	109	63.0-122			9.49	20
Chlorobenzene	25.0	24.2	25.3	96.7	101	79.0-121			4.69	20
Chlorodibromomethane	25.0	25.2	26.8	101	107	75.0-125			6.17	20
Chloroethane	25.0	22.5	23.4	90.2	93.7	47.0-152			3.80	20
Chloroform	25.0	23.8	25.2	95.3	101	72.0-121			5.73	20
Chloromethane	25.0	17.8	18.6	71.2	74.3	48.0-139			4.24	20
2-Chlorotoluene	25.0	23.0	24.1	92.1	96.4	74.0-122			4.57	20
4-Chlorotoluene	25.0	23.8	24.8	95.2	99.1	79.0-120			3.99	20
1,2-Dibromo-3-Chloropropane	25.0	21.4	21.3	85.4	85.2	64.0-127			0.260	20
1,2-Dibromoethane	25.0	24.8	25.4	99.3	102	77.0-123			2.51	20
Dibromomethane	25.0	25.7	26.3	103	105	78.0-120			2.13	20
1,2-Dichlorobenzene	25.0	23.7	24.5	94.8	98.2	80.0-120			3.52	20
1,3-Dichlorobenzene	25.0	22.5	23.5	89.9	93.9	72.0-123			4.39	20
1,4-Dichlorobenzene	25.0	22.7	23.3	90.9	93.0	77.0-120			2.28	20
Dichlorodifluoromethane	25.0	21.7	21.9	86.9	87.6	49.0-155			0.880	20
1,1-Dichloroethane	25.0	24.5	25.9	98.1	104	70.0-126			5.62	20
1,2-Dichloroethane	25.0	25.8	26.0	103	104	67.0-126			0.650	20
1,1-Dichloroethene	25.0	29.1	30.0	116	120	64.0-129			3.08	20
cis-1,2-Dichloroethene	25.0	25.9	25.8	103	103	73.0-120			0.170	20
Vinyl acetate	125	157	156	126	125	46.0-160			0.590	20
trans-1,2-Dichloroethene	25.0	24.9	26.5	99.7	106	71.0-121			5.99	20
1,2-Dichloropropane	25.0	25.9	26.4	103	106	75.0-125			2.23	20
1,1-Dichloropropene	25.0	26.9	28.2	107	113	71.0-129			5.00	20
1,3-Dichloropropane	25.0	24.3	25.4	97.1	102	80.0-121			4.48	20
cis-1,3-Dichloropropene	25.0	25.9	27.4	104	109	79.0-123			5.53	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228522-1 06/22/17 00:01 • (LCSD) R3228522-2 06/22/17 00:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	25.0	24.9	26.1	99.4	104	74.0-127			4.76	20
2,2-Dichloropropane	25.0	25.7	26.8	103	107	60.0-125			4.28	20
Di-isopropyl ether	25.0	24.8	25.2	99.1	101	59.0-133			1.52	20
Ethylbenzene	25.0	24.0	25.8	96.1	103	77.0-120			7.28	20
Hexachloro-1,3-butadiene	25.0	22.1	23.7	88.2	94.9	64.0-131			7.33	20
2-Hexanone	125	143	137	115	110	58.0-147			4.17	20
Isopropylbenzene	25.0	22.8	23.9	91.1	95.7	75.0-120			4.99	20
p-Isopropyltoluene	25.0	23.0	24.2	91.8	96.9	74.0-126			5.34	20
2-Butanone (MEK)	125	141	133	113	107	37.0-158			5.71	20
Methylene Chloride	25.0	24.9	25.8	99.4	103	66.0-121			3.55	20
4-Methyl-2-pentanone (MIBK)	125	123	124	98.1	99.0	59.0-143			0.940	20
Methyl tert-butyl ether	25.0	24.6	24.8	98.6	99.4	64.0-123			0.820	20
Naphthalene	25.0	21.1	21.8	84.4	87.2	62.0-128			3.26	20
n-Propylbenzene	25.0	23.0	24.1	92.1	96.6	79.0-120			4.69	20
Styrene	25.0	25.1	26.0	100	104	78.0-124			3.35	20
1,1,1,2-Tetrachloroethane	25.0	23.8	25.1	95.4	100	75.0-122			5.08	20
1,1,2,2-Tetrachloroethane	25.0	21.8	21.6	87.4	86.3	71.0-122			1.22	20
Tetrachloroethene	25.0	23.7	25.6	94.8	102	70.0-127			7.62	20
Toluene	25.0	23.5	25.7	94.1	103	77.0-120			8.63	20
1,1,2-Trichlorotrifluoroethane	25.0	29.8	30.3	119	121	61.0-136			1.70	20
1,2,3-Trichlorobenzene	25.0	21.1	22.3	84.5	89.3	61.0-133			5.54	20
1,2,4-Trichlorobenzene	25.0	24.0	24.9	95.9	99.6	69.0-129			3.76	20
1,1,1-Trichloroethane	25.0	26.2	27.7	105	111	68.0-122			5.52	20
1,1,2-Trichloroethane	25.0	23.9	25.0	95.7	100	78.0-120			4.53	20
Trichloroethene	25.0	24.8	26.3	99.2	105	78.0-120			6.01	20
Trichlorofluoromethane	25.0	28.3	29.2	113	117	56.0-137			3.03	20
1,2,3-Trichloropropane	25.0	23.0	22.1	91.8	88.3	72.0-124			3.93	20
1,2,3-Trimethylbenzene	25.0	23.2	24.1	92.8	96.5	75.0-120			3.97	20
1,2,4-Trimethylbenzene	25.0	23.1	24.2	92.3	96.8	75.0-120			4.76	20
1,3,5-Trimethylbenzene	25.0	22.5	23.5	90.1	94.1	75.0-120			4.32	20
Vinyl chloride	25.0	21.7	22.0	86.7	88.1	64.0-133			1.62	20
Xylenes, Total	75.0	71.3	75.3	95.1	100	77.0-120			5.46	20
(S) Toluene-d8				100	102	80.0-120				
(S) Dibromofluoromethane				99.1	98.5	76.0-123				
(S) 4-Bromofluorobenzene				104	103	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: Calibration verification outside of acceptance limits. Result is estimated.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

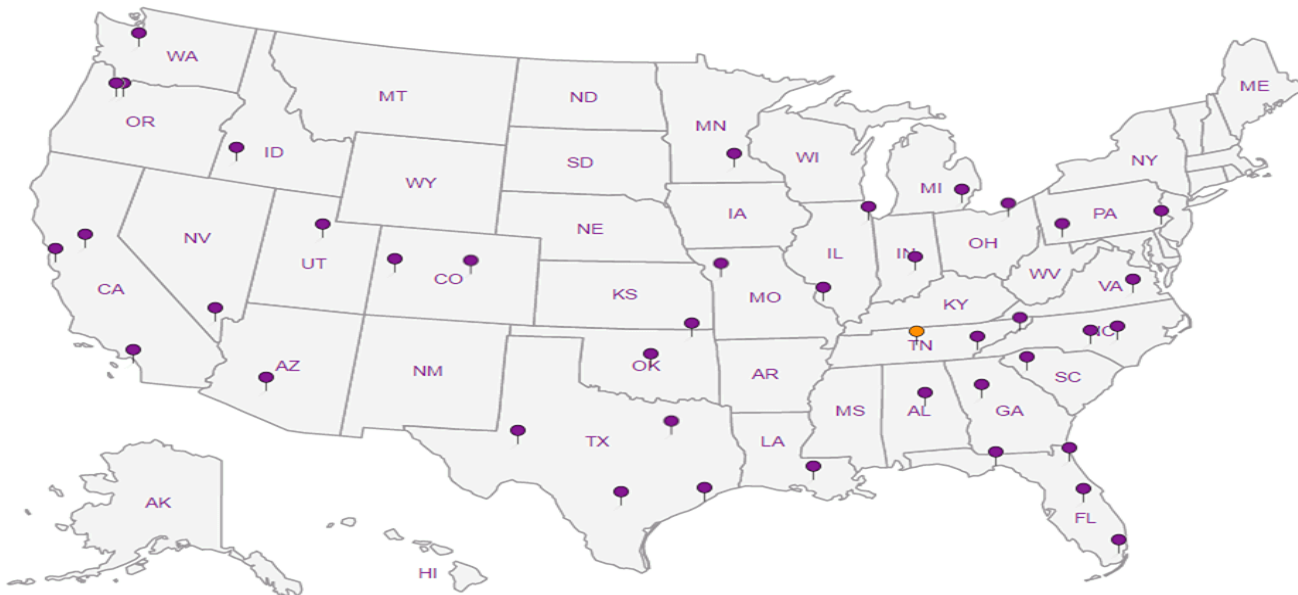
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# 916678
G104

Acctnum: **PESENVSWA**
Template: **T124201**
Prelogin: **P603202**
TSR: **110 - Brian Ford**
PB: **5-31-17**
Shipped Via: **FedEX Ground**

Report to:
Bill Haldeman

Email To: **bhaldeman@pesenv.com**

Project
Description: **American Linen Supply**

City/State
Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

Immediately Packed on Ice N Y

*Alk, Cl, NO3, SO4 250mlHDPE-NoPres
NWTPhGX 40ml/Amb HCl
TOC 250ml/Amb-HCl
Total Fe Mn 6020 250mlHDPE-HNO3
low level 8260C 40ml/Amb-HCl
low level RSK175 40ml/Amb-HCl

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
SCL-MW105-061517	GRAB	GW	27.5	6/15/17	0930	4
MW126-061517	↓	GW	90	↓	0845	4
RMW-2-061517	↓	GW	10	↓	1030	4
MW102-061517	↓	GW	120	↓	1054	4
MW124-061517	↓	GW	115	↓	1240	4
		GW				
		GW				
		GW				
		GW				
		GW				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NO3 nitrate has a 48 hour holding time

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)
[Signature]
Date: **6/15/17**
Time: **1445**

Date: **6/15/17**
Time: **1445**

Received by: (Signature)
[Signature]
Received by: (Signature)
[Signature]
Received for lab by: (Signature)
[Signature]

Trip Blank Received: Yes/No
HCL / MeOH
TBR
Temp: **3.0** °C
Bottles Received: **20**
Date: **6.16.17**
Time: **845**

If preservation required by Login: Date/Time
Hold:
Condition: **NCF / OK**

MEMORANDUM

TO: Project File **DATE:** July 24, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 15, 2017- Groundwater Samples
LAB: ESC Lab ID L916678

Five (5) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 15, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C.

The results are reported in ESC Sample Delivery Group (SDG) L916678. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L916678 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.0 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C:* Continuing calibration verification (CCV) issues for acetone, bromomethane, 1,2-dibromo-3-chloropropane, and trans-1,4-dichloro-2-butene were identified by the laboratory for all samples associated with analytical batch WG991349 (analyzed on June 22, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All sample results for acetone, bromomethane, carbon disulfide, 1,2-dibromo-3-chloropropane, and trans-1,4-dichloro-2-butene are estimated and qualified (UJ or J).**

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

Trip Blank Results

USEPA Method 8260C:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision and accuracy data.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the method detection limit (MDL) and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned. Laboratory report pages with these qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 06/15/17 08:30

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	U	<i>UJ</i> <u>JO</u>	1.05	25.0	1	06/22/2017 03:02	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 03:02	WG991349
Benzene	208		0.896	5.00	10	06/26/2017 02:21	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 03:02	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 03:02	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 03:02	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 03:02	WG991349
Bromomethane	U	<i>UJ</i> <u>JO</u>	0.157	2.50	1	06/22/2017 03:02	WG991349
n-Butylbenzene	4.77		0.143	0.500	1	06/22/2017 03:02	WG991349
sec-Butylbenzene	4.25		0.134	0.500	1	06/22/2017 03:02	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 03:02	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 03:02	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 03:02	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 03:02	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 03:02	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 03:02	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 03:02	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 03:02	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 03:02	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 03:02	WG991349
1,2-Dibromo-3-Chloropropane	U	<i>UJ</i> <u>JO</u>	0.325	2.50	1	06/22/2017 03:02	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 03:02	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 03:02	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 03:02	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 03:02	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 03:02	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 03:02	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 03:02	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 03:02	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 03:02	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 03:02	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 03:02	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 03:02	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 03:02	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 03:02	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 03:02	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 03:02	WG991349
trans-1,4-Dichloro-2-butene	U	<i>UJ</i> <u>JO</u>	0.257	5.00	1	06/22/2017 03:02	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 03:02	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 03:02	WG991349
Ethylbenzene	109		0.158	0.500	1	06/22/2017 03:02	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 03:02	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 03:02	WG991349
n-Hexane	65.1		0.305	5.00	1	06/22/2017 03:02	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 03:02	WG991349
Isopropylbenzene	67.3		0.126	0.500	1	06/22/2017 03:02	WG991349
p-Isopropyltoluene	1.08		0.138	0.500	1	06/22/2017 03:02	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 03:02	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 03:02	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 03:02	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 03:02	WG991349
Naphthalene	5.20		0.174	2.50	1	06/22/2017 03:02	WG991349
n-Propylbenzene	126		0.162	0.500	1	06/22/2017 03:02	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 03:02	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 03:02	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 03:02	WG991349

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

DC 7/24/17



Collected date/time: 06/15/17 08:30

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	
	ug/l		ug/l	ug/l		date / time		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 03:02	WG991349	Cp
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 03:02	WG991349	Tc
Toluene	14.3		0.412	0.500	1	06/22/2017 03:02	WG991349	Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 03:02	WG991349	Cn
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 03:02	WG991349	
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 03:02	WG991349	
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 03:02	WG991349	
Trichloroethene	U		0.153	0.500	1	06/22/2017 03:02	WG991349	
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 03:02	WG991349	Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 03:02	WG991349	
1,2,4-Trimethylbenzene	0.562		0.123	0.500	1	06/22/2017 03:02	WG991349	Qc
1,2,3-Trimethylbenzene	9.29		0.0739	0.500	1	06/22/2017 03:02	WG991349	
1,3,5-Trimethylbenzene	3.45		0.124	0.500	1	06/22/2017 03:02	WG991349	Gl
Vinyl acetate	U		0.645	5.00	1	06/22/2017 03:02	WG991349	
Vinyl chloride	U		0.118	0.500	1	06/22/2017 03:02	WG991349	Al
Xylenes, Total	40.8		0.316	1.50	1	06/22/2017 03:02	WG991349	Sc
(S) Toluene-d8	91.8			80.0-120		06/22/2017 03:02	WG991349	
(S) Toluene-d8	101			80.0-120		06/26/2017 02:21	WG991349	
(S) Dibromofluoromethane	103			76.0-123		06/22/2017 03:02	WG991349	
(S) Dibromofluoromethane	101			76.0-123		06/26/2017 02:21	WG991349	
(S) 4-Bromofluorobenzene	97.0			80.0-120		06/22/2017 03:02	WG991349	
(S) 4-Bromofluorobenzene	107			80.0-120		06/26/2017 02:21	WG991349	

Jc
7/29/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<i>VJ</i> <u>JO</u>	1.05	25.0	1	06/22/2017 03:25	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 03:25	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 03:25	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 03:25	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 03:25	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 03:25	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 03:25	WG991349
Bromomethane	U	<i>VJ</i> <u>JO</u>	0.157	2.50	1	06/22/2017 03:25	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 03:25	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 03:25	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 03:25	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 03:25	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 03:25	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 03:25	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 03:25	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 03:25	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 03:25	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 03:25	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 03:25	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 03:25	WG991349
1,2-Dibromo-3-Chloropropane	U	<i>VJ</i> <u>JO</u>	0.325	2.50	1	06/22/2017 03:25	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 03:25	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 03:25	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 03:25	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 03:25	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 03:25	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 03:25	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 03:25	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 03:25	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 03:25	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 03:25	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 03:25	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 03:25	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 03:25	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 03:25	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 03:25	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 03:25	WG991349
trans-1,4-Dichloro-2-butene	U	<i>VJ</i> <u>JO</u>	0.257	5.00	1	06/22/2017 03:25	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 03:25	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 03:25	WG991349
Ethylbenzene	0.179	<i>J</i> <u>J</u>	0.158	0.500	1	06/22/2017 03:25	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 03:25	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 03:25	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 03:25	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 03:25	WG991349
Isopropylbenzene	0.245	<i>J</i> <u>J</u>	0.126	0.500	1	06/22/2017 03:25	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 03:25	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 03:25	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 03:25	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 03:25	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 03:25	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 03:25	WG991349
n-Propylbenzene	0.636		0.162	0.500	1	06/22/2017 03:25	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 03:25	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 03:25	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 03:25	WG991349

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

Jc
7/24/17

MW126-061517

SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.



Collected date/time: 06/15/17 08:45

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	
	ug/l		ug/l	ug/l		date / time		
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 03:25	WG991349	Cp
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 03:25	WG991349	Tc
Toluene	U		0.412	0.500	1	06/22/2017 03:25	WG991349	Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 03:25	WG991349	Cn
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 03:25	WG991349	
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 03:25	WG991349	
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 03:25	WG991349	
Trichloroethene	U		0.153	0.500	1	06/22/2017 03:25	WG991349	
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 03:25	WG991349	Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 03:25	WG991349	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 03:25	WG991349	Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 03:25	WG991349	Gl
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 03:25	WG991349	
Vinyl acetate	U		0.645	5.00	1	06/22/2017 03:25	WG991349	Al
Vinyl chloride	U		0.118	0.500	1	06/22/2017 03:25	WG991349	
Xylenes, Total	U		0.316	1.50	1	06/22/2017 03:25	WG991349	Sc
(S) Toluene-d8	98.7			80.0-120		06/22/2017 03:25	WG991349	
(S) Dibromofluoromethane	101			76.0-123		06/22/2017 03:25	WG991349	
(S) 4-Bromofluorobenzene	99.3			80.0-120		06/22/2017 03:25	WG991349	

Je 7/24/17



Collected date/time: 06/15/17 10:30

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.48	<i>JS</i> <u>JO</u>	1.05	25.0	1	06/22/2017 03:48	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 03:48	WG991349
Benzene	0.694		0.0896	0.500	1	06/22/2017 03:48	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 03:48	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 03:48	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 03:48	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 03:48	WG991349
Bromomethane	U	<i>JS</i> <u>JO</u>	0.157	2.50	1	06/22/2017 03:48	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 03:48	WG991349
sec-Butylbenzene	0.180	<i>J</i> <u>J</u>	0.134	0.500	1	06/22/2017 03:48	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 03:48	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 03:48	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 03:48	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 03:48	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 03:48	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 03:48	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 03:48	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 03:48	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 03:48	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 03:48	WG991349
1,2-Dibromo-3-Chloropropane	U	<i>JS</i> <u>JO</u>	0.325	2.50	1	06/22/2017 03:48	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 03:48	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 03:48	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 03:48	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 03:48	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 03:48	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 03:48	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 03:48	WG991349
1,2-Dichloroethane	0.199	<i>J</i> <u>J</u>	0.108	0.500	1	06/22/2017 03:48	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 03:48	WG991349
cis-1,2-Dichloroethene	0.682		0.0933	0.500	1	06/22/2017 03:48	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 03:48	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 03:48	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 03:48	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 03:48	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 03:48	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 03:48	WG991349
trans-1,4-Dichloro-2-butene	U	<i>JS</i> <u>JO</u>	0.257	5.00	1	06/22/2017 03:48	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 03:48	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 03:48	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 03:48	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 03:48	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 03:48	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 03:48	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 03:48	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 03:48	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 03:48	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 03:48	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 03:48	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 03:48	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 03:48	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 03:48	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 03:48	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 03:48	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 03:48	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 03:48	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Si
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JS
7/12/17



Collected date/time: 06/15/17 10:30

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 03:48	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 03:48	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 03:48	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 03:48	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 03:48	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 03:48	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 03:48	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 03:48	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 03:48	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 03:48	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 03:48	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 03:48	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 03:48	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 03:48	WG991349
Vinyl chloride	0.609		0.118	0.500	1	06/22/2017 03:48	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 03:48	WG991349
(S) Toluene-d8	101			80.0-120		06/22/2017 03:48	WG991349
(S) Dibromofluoromethane	102			76.0-123		06/22/2017 03:48	WG991349
(S) 4-Bromofluorobenzene	98.4			80.0-120		06/22/2017 03:48	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JK 7/24/17

MW102-061517

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 06/15/17 10:54

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<i>UJ</i> <u>JO</u>	1.05	25.0	1	06/22/2017 04:10	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 04:10	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 04:10	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 04:10	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 04:10	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 04:10	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 04:10	WG991349
Bromomethane	U	<i>UJ</i> <u>JO</u>	0.157	2.50	1	06/22/2017 04:10	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 04:10	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 04:10	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 04:10	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 04:10	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 04:10	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 04:10	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 04:10	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 04:10	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 04:10	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 04:10	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 04:10	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 04:10	WG991349
1,2-Dibromo-3-Chloropropane	U	<i>UJ</i> <u>JO</u>	0.325	2.50	1	06/22/2017 04:10	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 04:10	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 04:10	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 04:10	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 04:10	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 04:10	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 04:10	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 04:10	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 04:10	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 04:10	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 04:10	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 04:10	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 04:10	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 04:10	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 04:10	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 04:10	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 04:10	WG991349
trans-1,4-Dichloro-2-butene	U	<i>UJ</i> <u>JO</u>	0.257	5.00	1	06/22/2017 04:10	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 04:10	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 04:10	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 04:10	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 04:10	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 04:10	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 04:10	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 04:10	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 04:10	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 04:10	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 04:10	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 04:10	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 04:10	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 04:10	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 04:10	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 04:10	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 04:10	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 04:10	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 04:10	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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MW102-061517

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 06/15/17 10:54

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 04:10	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 04:10	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 04:10	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 04:10	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 04:10	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 04:10	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 04:10	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 04:10	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 04:10	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 04:10	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 04:10	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 04:10	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 04:10	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 04:10	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 04:10	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 04:10	WG991349
(S) Toluene-d8	101			80.0-120		06/22/2017 04:10	WG991349
(S) Dibromofluoromethane	101			76.0-123		06/22/2017 04:10	WG991349
(S) 4-Bromofluorobenzene	99.5			80.0-120		06/22/2017 04:10	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

Sr

6 Qc

7 Gl

8 Al

9 Sc

Je
7/24/17



Collected date/time: 06/15/17 12:40

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	U	VJ JO	1.05	25.0	1	06/22/2017 04:33	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 04:33	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 04:33	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 04:33	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 04:33	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 04:33	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 04:33	WG991349
Bromomethane	U	VJ JO	0.157	2.50	1	06/22/2017 04:33	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 04:33	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 04:33	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 04:33	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 04:33	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 04:33	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 04:33	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 04:33	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 04:33	WG991349
Chloroform	0.614		0.0860	0.500	1	06/22/2017 04:33	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 04:33	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 04:33	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 04:33	WG991349
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/22/2017 04:33	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 04:33	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 04:33	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 04:33	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 04:33	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 04:33	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 04:33	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 04:33	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 04:33	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 04:33	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 04:33	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 04:33	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 04:33	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 04:33	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 04:33	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 04:33	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 04:33	WG991349
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/22/2017 04:33	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 04:33	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 04:33	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 04:33	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 04:33	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 04:33	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 04:33	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 04:33	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 04:33	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 04:33	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 04:33	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 04:33	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 04:33	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 04:33	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 04:33	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 04:33	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 04:33	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 04:33	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 04:33	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 7/24/17

MW124-061517

SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.



Collected date/time: 06/15/17 12:40

L916678

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 04:33	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 04:33	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 04:33	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 04:33	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 04:33	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 04:33	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 04:33	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 04:33	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 04:33	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 04:33	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 04:33	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 04:33	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 04:33	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 04:33	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 04:33	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 04:33	WG991349
(S) Toluene-d8	98.0			80.0-120		06/22/2017 04:33	WG991349
(S) Dibromofluoromethane	101			76.0-123		06/22/2017 04:33	WG991349
(S) 4-Bromofluorobenzene	99.3			80.0-120		06/22/2017 04:33	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

*JC
7/24/17*

June 26, 2017

PES Environmental, Inc.- WA

Sample Delivery Group: L916723
Samples Received: 06/17/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



R-MW5-061617 L916723-01 GW

Collected by
Shannon McKernan

Collected date/time
06/16/17 10:05

Received date/time
06/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG991499	1	06/23/17 01:56	06/23/17 01:56	MCG
Wet Chemistry by Method 9056A	WG990314	1	06/17/17 10:52	06/17/17 10:52	DR
Wet Chemistry by Method 9060A	WG991744	1	06/22/17 15:52	06/22/17 15:52	SJM
Metals (ICPMS) by Method 6020A	WG991323	1	06/21/17 15:03	06/21/17 21:07	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG990586	1	06/19/17 12:09	06/19/17 12:09	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 04:56	06/22/17 04:56	BMB

1
Cp

2
Tc

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Ss

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Cn

5
Sr

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Qc

7
Gl

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Al

9
Sc

MW112-061617 L916723-02 GW

Collected by
Shannon McKernan

Collected date/time
06/16/17 11:50

Received date/time
06/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG991499	1	06/23/17 10:38	06/23/17 10:38	MCG
Wet Chemistry by Method 9056A	WG990314	1	06/17/17 11:17	06/17/17 11:17	DR
Wet Chemistry by Method 9060A	WG991744	1	06/22/17 16:44	06/22/17 16:44	SJM
Metals (ICPMS) by Method 6020A	WG991323	1	06/21/17 15:03	06/21/17 21:11	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG990586	1	06/19/17 12:11	06/19/17 12:11	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 05:18	06/22/17 05:18	BMB

MW113-061617 L916723-03 GW

Collected by
Shannon McKernan

Collected date/time
06/16/17 13:55

Received date/time
06/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG991499	1	06/23/17 02:17	06/23/17 02:17	MCG
Wet Chemistry by Method 9056A	WG990314	1	06/17/17 11:30	06/17/17 11:30	DR
Wet Chemistry by Method 9060A	WG991744	1	06/22/17 18:11	06/22/17 18:11	SJM
Metals (ICPMS) by Method 6020A	WG991323	1	06/21/17 15:03	06/21/17 21:14	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG990586	1	06/19/17 12:17	06/19/17 12:17	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG990743	10	06/20/17 09:32	06/20/17 09:32	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 05:41	06/22/17 05:41	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	100	06/26/17 02:37	06/26/17 02:37	ACG

MW116-061617 L916723-04 GW

Collected by
Shannon McKernan

Collected date/time
06/16/17 14:10

Received date/time
06/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG991499	1	06/23/17 02:24	06/23/17 02:24	MCG
Wet Chemistry by Method 9056A	WG990314	1	06/17/17 11:43	06/17/17 11:43	DR
Wet Chemistry by Method 9060A	WG991744	1	06/22/17 18:25	06/22/17 18:25	SJM
Metals (ICPMS) by Method 6020A	WG991323	1	06/21/17 15:03	06/21/17 21:18	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG990586	1	06/19/17 12:54	06/19/17 12:54	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG990743	20	06/20/17 09:34	06/20/17 09:34	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/22/17 06:04	06/22/17 06:04	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG991349	1	06/26/17 02:52	06/26/17 02:52	ACG



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	152000		2710	20000	1	06/23/2017 01:56	WG991499

Sample Narrative:

2320 B-2011 L916723-01 WG991499: ending pH=4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	58300		51.9	1000	1	06/17/2017 10:52	WG990314
Nitrate	253		22.7	100	1	06/17/2017 10:52	WG990314
Sulfate	21800		77.4	5000	1	06/17/2017 10:52	WG990314

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2590		102	1000	1	06/22/2017 15:52	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2740		15.0	100	1	06/21/2017 21:07	WG991323
Manganese	1290		0.250	5.00	1	06/21/2017 21:07	WG991323

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	275		0.287	0.678	1	06/19/2017 12:09	WG990586
Ethane	U		0.296	1.29	1	06/19/2017 12:09	WG990586
Ethene	U		0.422	1.27	1	06/19/2017 12:09	WG990586

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	JO	1.05	25.0	1	06/22/2017 04:56	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 04:56	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 04:56	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 04:56	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 04:56	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 04:56	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 04:56	WG991349
Bromomethane	U	JO	0.157	2.50	1	06/22/2017 04:56	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 04:56	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 04:56	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 04:56	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 04:56	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 04:56	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 04:56	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 04:56	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 04:56	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 04:56	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 04:56	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 04:56	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 04:56	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/16/17 10:05

L916723

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	0.325	2.50	1	06/22/2017 04:56	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 04:56	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 04:56	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 04:56	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 04:56	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 04:56	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 04:56	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 04:56	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 04:56	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 04:56	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 04:56	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 04:56	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 04:56	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 04:56	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 04:56	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 04:56	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 04:56	WG991349
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00	1	06/22/2017 04:56	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 04:56	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 04:56	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 04:56	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 04:56	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 04:56	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 04:56	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 04:56	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 04:56	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 04:56	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 04:56	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 04:56	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 04:56	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 04:56	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 04:56	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 04:56	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 04:56	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 04:56	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 04:56	WG991349
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 04:56	WG991349
Tetrachloroethene	0.257	<u>J</u>	0.199	0.500	1	06/22/2017 04:56	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 04:56	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 04:56	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 04:56	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 04:56	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 04:56	WG991349
Trichloroethene	0.245	<u>J</u>	0.153	0.500	1	06/22/2017 04:56	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 04:56	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 04:56	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 04:56	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 04:56	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 04:56	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 04:56	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 04:56	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 04:56	WG991349
(S) Toluene-d8	96.6			80.0-120		06/22/2017 04:56	WG991349
(S) Dibromofluoromethane	97.3			76.0-123		06/22/2017 04:56	WG991349
(S) 4-Bromofluorobenzene	100			80.0-120		06/22/2017 04:56	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	24000		2710	20000	1	06/23/2017 10:38	WG991499

Sample Narrative:

2320 B-2011 L916723-02 WG991499: ending pH=4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	1150		51.9	1000	1	06/17/2017 11:17	WG990314
Nitrate	162		22.7	100	1	06/17/2017 11:17	WG990314
Sulfate	1260	J	77.4	5000	1	06/17/2017 11:17	WG990314

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	5480		102	1000	1	06/22/2017 16:44	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2560		15.0	100	1	06/21/2017 21:11	WG991323
Manganese	87.1		0.250	5.00	1	06/21/2017 21:11	WG991323

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1.78		0.287	0.678	1	06/19/2017 12:11	WG990586
Ethane	U		0.296	1.29	1	06/19/2017 12:11	WG990586
Ethene	U		0.422	1.27	1	06/19/2017 12:11	WG990586

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	9.22	J JO	1.05	25.0	1	06/22/2017 05:18	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 05:18	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 05:18	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 05:18	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 05:18	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 05:18	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 05:18	WG991349
Bromomethane	U	JO	0.157	2.50	1	06/22/2017 05:18	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 05:18	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 05:18	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 05:18	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 05:18	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 05:18	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 05:18	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 05:18	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 05:18	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 05:18	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 05:18	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 05:18	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 05:18	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/16/17 11:50

L916723

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	0.325	2.50	1	06/22/2017 05:18	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 05:18	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 05:18	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 05:18	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 05:18	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 05:18	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 05:18	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 05:18	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 05:18	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 05:18	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 05:18	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 05:18	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 05:18	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 05:18	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 05:18	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 05:18	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 05:18	WG991349
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00	1	06/22/2017 05:18	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 05:18	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 05:18	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 05:18	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 05:18	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 05:18	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 05:18	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 05:18	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 05:18	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 05:18	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 05:18	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 05:18	WG991349
4-Methyl-2-pentanone (MIBK)	8.50		0.823	5.00	1	06/22/2017 05:18	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 05:18	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 05:18	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 05:18	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 05:18	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 05:18	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 05:18	WG991349
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 05:18	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 05:18	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 05:18	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 05:18	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 05:18	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 05:18	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 05:18	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 05:18	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 05:18	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 05:18	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 05:18	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 05:18	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 05:18	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 05:18	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 05:18	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 05:18	WG991349
(S) Toluene-d8	96.9			80.0-120		06/22/2017 05:18	WG991349
(S) Dibromofluoromethane	100			76.0-123		06/22/2017 05:18	WG991349
(S) 4-Bromofluorobenzene	100			80.0-120		06/22/2017 05:18	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	587000		2710	20000	1	06/23/2017 02:17	WG991499

Sample Narrative:

2320 B-2011 L916723-03 WG991499: ending pH=4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	57500		51.9	1000	1	06/17/2017 11:30	WG990314
Nitrate	U		22.7	100	1	06/17/2017 11:30	WG990314
Sulfate	41900		77.4	5000	1	06/17/2017 11:30	WG990314

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	18000		102	1000	1	06/22/2017 18:11	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	14400		15.0	100	1	06/21/2017 21:14	WG991323
Manganese	990		0.250	5.00	1	06/21/2017 21:14	WG991323

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	6520		2.87	6.78	10	06/20/2017 09:32	WG990743
Ethane	147		0.296	1.29	1	06/19/2017 12:17	WG990586
Ethene	U		0.422	1.27	1	06/19/2017 12:17	WG990586

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.90	J JO	1.05	25.0	1	06/22/2017 05:41	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 05:41	WG991349
Benzene	0.468	J	0.0896	0.500	1	06/22/2017 05:41	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 05:41	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 05:41	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 05:41	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 05:41	WG991349
Bromomethane	U	JO	0.157	2.50	1	06/22/2017 05:41	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 05:41	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 05:41	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 05:41	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 05:41	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 05:41	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 05:41	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 05:41	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 05:41	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 05:41	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 05:41	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 05:41	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 05:41	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/22/2017 05:41	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 05:41	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 05:41	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 05:41	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 05:41	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 05:41	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 05:41	WG991349
1,1-Dichloroethane	0.474	J	0.114	0.500	1	06/22/2017 05:41	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 05:41	WG991349
1,1-Dichloroethene	5.93		0.188	0.500	1	06/22/2017 05:41	WG991349
cis-1,2-Dichloroethene	4750		9.33	50.0	100	06/26/2017 02:37	WG991349
trans-1,2-Dichloroethene	28.2		0.152	0.500	1	06/22/2017 05:41	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 05:41	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 05:41	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 05:41	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 05:41	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 05:41	WG991349
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/22/2017 05:41	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 05:41	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 05:41	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 05:41	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 05:41	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 05:41	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 05:41	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 05:41	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 05:41	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 05:41	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 05:41	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 05:41	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 05:41	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 05:41	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 05:41	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 05:41	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 05:41	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 05:41	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 05:41	WG991349
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 05:41	WG991349
Tetrachloroethene	0.522		0.199	0.500	1	06/22/2017 05:41	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 05:41	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 05:41	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 05:41	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 05:41	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 05:41	WG991349
Trichloroethene	148		0.153	0.500	1	06/22/2017 05:41	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 05:41	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 05:41	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 05:41	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 05:41	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 05:41	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 05:41	WG991349
Vinyl chloride	53.3		0.118	0.500	1	06/22/2017 05:41	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 05:41	WG991349
(S) Toluene-d8	99.0			80.0-120		06/22/2017 05:41	WG991349
(S) Toluene-d8	101			80.0-120		06/26/2017 02:37	WG991349
(S) Dibromofluoromethane	101			76.0-123		06/26/2017 02:37	WG991349
(S) Dibromofluoromethane	96.5			76.0-123		06/22/2017 05:41	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) 4-Bromofluorobenzene	104			80.0-120		06/26/2017 02:37	WG991349
(S) 4-Bromofluorobenzene	100			80.0-120		06/22/2017 05:41	WG991349

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	377000		2710	20000	1	06/23/2017 02:24	WG991499

Sample Narrative:

2320 B-2011 L916723-04 WG991499: ending pH=4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	25100		51.9	1000	1	06/17/2017 11:43	WG990314
Nitrate	U		22.7	100	1	06/17/2017 11:43	WG990314
Sulfate	9310		77.4	5000	1	06/17/2017 11:43	WG990314

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6800		102	1000	1	06/22/2017 18:25	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	6690		15.0	100	1	06/21/2017 21:18	WG991323
Manganese	793		0.250	5.00	1	06/21/2017 21:18	WG991323

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	8610		5.74	13.6	20	06/20/2017 09:34	WG990743
Ethane	U		0.296	1.29	1	06/19/2017 12:54	WG990586
Ethene	U		0.422	1.27	1	06/19/2017 12:54	WG990586

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	JO	1.05	25.0	1	06/22/2017 06:04	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 06:04	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 06:04	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 06:04	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 06:04	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 06:04	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 06:04	WG991349
Bromomethane	U	JO	0.157	2.50	1	06/22/2017 06:04	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 06:04	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 06:04	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 06:04	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 06:04	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 06:04	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 06:04	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 06:04	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 06:04	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 06:04	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 06:04	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 06:04	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 06:04	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/16/17 14:10

L916723

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/22/2017 06:04	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 06:04	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 06:04	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 06:04	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 06:04	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 06:04	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 06:04	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 06:04	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 06:04	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 06:04	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/26/2017 02:52	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 06:04	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 06:04	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 06:04	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 06:04	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 06:04	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 06:04	WG991349
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/22/2017 06:04	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 06:04	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 06:04	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 06:04	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 06:04	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 06:04	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 06:04	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 06:04	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 06:04	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 06:04	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 06:04	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 06:04	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 06:04	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 06:04	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 06:04	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 06:04	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 06:04	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 06:04	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 06:04	WG991349
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 06:04	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 06:04	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 06:04	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 06:04	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 06:04	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 06:04	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 06:04	WG991349
Trichloroethene	0.303	J	0.153	0.500	1	06/22/2017 06:04	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 06:04	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 06:04	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 06:04	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 06:04	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 06:04	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 06:04	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 06:04	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 06:04	WG991349
(S) Toluene-d8	101			80.0-120		06/26/2017 02:52	WG991349
(S) Toluene-d8	99.7			80.0-120		06/22/2017 06:04	WG991349
(S) Dibromofluoromethane	103			76.0-123		06/26/2017 02:52	WG991349
(S) Dibromofluoromethane	100			76.0-123		06/22/2017 06:04	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) 4-Bromofluorobenzene	99.7			80.0-120		06/22/2017 06:04	WG991349
(S) 4-Bromofluorobenzene	105			80.0-120		06/26/2017 02:52	WG991349

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3228216-2 06/23/17 00:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	U		2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L917236-03 Original Sample (OS) • Duplicate (DUP)

(OS) L917236-03 06/23/17 03:33 • (DUP) R3228216-6 06/23/17 03:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	586000	588000	1	0.000		20

L916201-01 Original Sample (OS) • Duplicate (DUP)

(OS) L916201-01 06/23/17 10:10 • (DUP) R3228216-8 06/23/17 10:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	71500	70200	1	2.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228216-4 06/23/17 02:02 • (LCSD) R3228216-5 06/23/17 03:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	104000	109000	104	109	85.0-115			4.00	20



Method Blank (MB)

(MB) R3226927-1 06/17/17 06:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L916723-01 Original Sample (OS) • Duplicate (DUP)

(OS) L916723-01 06/17/17 10:52 • (DUP) R3226927-4 06/17/17 11:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	58300	58200	1	0		15
Nitrate	253	234	1	8		15
Sulfate	21800	21700	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3226927-2 06/17/17 07:08 • (LCSD) R3226927-3 06/17/17 07:21

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39000	39000	98	98	80-120			0	15
Nitrate	8000	8200	8220	103	103	80-120			0	15
Sulfate	40000	39300	39300	98	98	80-120			0	15

L916723-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L916723-04 06/17/17 11:43 • (MS) R3226927-5 06/17/17 12:22

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	25100	74200	98	1	80-120	
Nitrate	5000	U	4900	98	1	80-120	
Sulfate	50000	9310	59000	99	1	80-120	



Method Blank (MB)

(MB) R3228098-1 06/22/17 13:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L916367-01 Original Sample (OS) • Duplicate (DUP)

(OS) L916367-01 06/22/17 14:59 • (DUP) R3228098-3 06/22/17 15:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	791	1	0		20

L917439-04 Original Sample (OS) • Duplicate (DUP)

(OS) L917439-04 06/22/17 21:31 • (DUP) R3228098-7 06/22/17 21:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	13600	13800	1	1		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228098-2 06/22/17 14:42 • (LCSD) R3228098-6 06/22/17 17:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	69900	72200	93	96	85-115			3	20

L916723-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916723-01 06/22/17 15:52 • (MS) R3228098-4 06/22/17 16:10 • (MSD) R3228098-5 06/22/17 16:28

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	2590	46200	47800	87	90	1	80-120			3	20



Method Blank (MB)

(MB) R3227635-1 06/21/17 20:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227635-2 06/21/17 20:22 • (LCSD) R3227635-3 06/21/17 20:25

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5250	5000	105	100	80-120			5	20
Manganese	50.0	48.4	47.6	97	95	80-120			2	20

5 Sr

6 Qc

L916598-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916598-02 06/21/17 20:29 • (MS) R3227635-5 06/21/17 20:36 • (MSD) R3227635-6 06/21/17 20:39

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	2010	6990	7100	100	102	1	75-125			2	20
Manganese	50.0	28.3	74.8	75.8	93	95	1	75-125			1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3226747-1 06/19/17 11:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L916718-01 Original Sample (OS) • Duplicate (DUP)

(OS) L916718-01 06/19/17 12:05 • (DUP) R3226747-2 06/19/17 12:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L916768-02 Original Sample (OS) • Duplicate (DUP)

(OS) L916768-02 06/19/17 12:59 • (DUP) R3226747-3 06/19/17 13:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	770	700	1	9.50		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3226747-6 06/19/17 13:48 • (LCSD) R3226747-7 06/19/17 13:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	74.6	75.1	110	111	70.0-130			0.580	20
Ethane	129	127	140	98.2	109	70.0-130			10.3	20
Ethene	127	123	136	96.9	107	70.0-130			10.3	20

L916829-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916829-01 06/19/17 13:10 • (MS) R3226747-4 06/19/17 13:26 • (MSD) R3226747-5 06/19/17 13:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Methane	67.8	185	203	222	26.3	53.8	1	70.0-130	J6	J6	8.78	20
Ethane	129	U	141	148	109	114	1	70.0-130			4.84	20



L916829-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916829-01 06/19/17 13:10 • (MS) R3226747-4 06/19/17 13:26 • (MSD) R3226747-5 06/19/17 13:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
Ethene	127	U	136	142	107	112	1	70.0-130			4.61	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3226980-1 06/20/17 09:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L916768-09 Original Sample (OS) • Duplicate (DUP)

(OS) L916768-09 06/20/17 09:36 • (DUP) R3226980-2 06/20/17 09:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	1780	1790	2	0.590		20

L916915-01 Original Sample (OS) • Duplicate (DUP)

(OS) L916915-01 06/20/17 10:04 • (DUP) R3226980-3 06/20/17 10:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	900	908	1	0.960		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3226980-4 06/20/17 10:19 • (LCSD) R3226980-5 06/20/17 10:23

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	72.2	72.9	107	108	70.0-130			0.940	20



Method Blank (MB)

(MB) R3228522-3 06/22/17 01:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
2,2-Dichloropropane	U		0.0929	0.500
n-Hexane	U		0.305	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3228522-3 06/22/17 01:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Di-isopropyl ether	U		0.0924	0.500
Iodomethane	U		0.377	10.0
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
Tetrachloroethene	U		0.199	0.500
Vinyl acetate	U		0.645	5.00
Toluene	U		0.412	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,2,4-Trimethylbenzene	U		0.123	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	100			80.0-120
(S) Dibromofluoromethane	101			76.0-123
(S) 4-Bromofluorobenzene	98.9			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228522-1 06/22/17 00:01 • (LCSD) R3228522-2 06/22/17 00:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	180	167	144	133	10.0-160			8.03	23
Acrylonitrile	125	133	129	106	104	60.0-142			2.81	20
Benzene	25.0	24.8	25.8	99.2	103	69.0-123			4.07	20
trans-1,4-Dichloro-2-butene	25.0	21.2	21.5	84.7	86.0	55.0-134			1.45	20
Bromobenzene	25.0	22.5	23.5	90.0	93.8	79.0-120			4.14	20
Bromodichloromethane	25.0	25.3	26.1	101	105	76.0-120			3.06	20
Bromochloromethane	25.0	25.4	26.1	102	104	76.0-122			2.58	20
Bromoform	25.0	23.5	24.0	93.9	96.0	67.0-132			2.14	20
Bromomethane	25.0	17.8	18.3	71.3	73.2	18.0-160			2.62	20
n-Hexane	25.0	26.1	27.5	104	110	56.0-124			5.10	20
Iodomethane	125	113	127	90.3	102	57.0-140			11.9	20
n-Butylbenzene	25.0	22.7	24.1	90.7	96.4	72.0-126			6.19	20
sec-Butylbenzene	25.0	22.1	23.5	88.2	94.1	74.0-121			6.48	20
tert-Butylbenzene	25.0	22.4	23.3	89.6	93.4	75.0-122			4.13	20
Carbon disulfide	25.0	28.5	30.5	114	122	55.0-127			6.66	20
Carbon tetrachloride	25.0	24.9	27.3	99.4	109	63.0-122			9.49	20
Chlorobenzene	25.0	24.2	25.3	96.7	101	79.0-121			4.69	20
Chlorodibromomethane	25.0	25.2	26.8	101	107	75.0-125			6.17	20
Chloroethane	25.0	22.5	23.4	90.2	93.7	47.0-152			3.80	20
Chloroform	25.0	23.8	25.2	95.3	101	72.0-121			5.73	20
Chloromethane	25.0	17.8	18.6	71.2	74.3	48.0-139			4.24	20
2-Chlorotoluene	25.0	23.0	24.1	92.1	96.4	74.0-122			4.57	20
4-Chlorotoluene	25.0	23.8	24.8	95.2	99.1	79.0-120			3.99	20
1,2-Dibromo-3-Chloropropane	25.0	21.4	21.3	85.4	85.2	64.0-127			0.260	20
1,2-Dibromoethane	25.0	24.8	25.4	99.3	102	77.0-123			2.51	20
Dibromomethane	25.0	25.7	26.3	103	105	78.0-120			2.13	20
1,2-Dichlorobenzene	25.0	23.7	24.5	94.8	98.2	80.0-120			3.52	20
1,3-Dichlorobenzene	25.0	22.5	23.5	89.9	93.9	72.0-123			4.39	20
1,4-Dichlorobenzene	25.0	22.7	23.3	90.9	93.0	77.0-120			2.28	20
Dichlorodifluoromethane	25.0	21.7	21.9	86.9	87.6	49.0-155			0.880	20
1,1-Dichloroethane	25.0	24.5	25.9	98.1	104	70.0-126			5.62	20
1,2-Dichloroethane	25.0	25.8	26.0	103	104	67.0-126			0.650	20
1,1-Dichloroethene	25.0	29.1	30.0	116	120	64.0-129			3.08	20
cis-1,2-Dichloroethene	25.0	25.9	25.8	103	103	73.0-120			0.170	20
Vinyl acetate	125	157	156	126	125	46.0-160			0.590	20
trans-1,2-Dichloroethene	25.0	24.9	26.5	99.7	106	71.0-121			5.99	20
1,2-Dichloropropane	25.0	25.9	26.4	103	106	75.0-125			2.23	20
1,1-Dichloropropene	25.0	26.9	28.2	107	113	71.0-129			5.00	20
1,3-Dichloropropane	25.0	24.3	25.4	97.1	102	80.0-121			4.48	20
cis-1,3-Dichloropropene	25.0	25.9	27.4	104	109	79.0-123			5.53	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228522-1 06/22/17 00:01 • (LCSD) R3228522-2 06/22/17 00:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	25.0	24.9	26.1	99.4	104	74.0-127			4.76	20
2,2-Dichloropropane	25.0	25.7	26.8	103	107	60.0-125			4.28	20
Di-isopropyl ether	25.0	24.8	25.2	99.1	101	59.0-133			1.52	20
Ethylbenzene	25.0	24.0	25.8	96.1	103	77.0-120			7.28	20
Hexachloro-1,3-butadiene	25.0	22.1	23.7	88.2	94.9	64.0-131			7.33	20
2-Hexanone	125	143	137	115	110	58.0-147			4.17	20
Isopropylbenzene	25.0	22.8	23.9	91.1	95.7	75.0-120			4.99	20
p-Isopropyltoluene	25.0	23.0	24.2	91.8	96.9	74.0-126			5.34	20
2-Butanone (MEK)	125	141	133	113	107	37.0-158			5.71	20
Methylene Chloride	25.0	24.9	25.8	99.4	103	66.0-121			3.55	20
4-Methyl-2-pentanone (MIBK)	125	123	124	98.1	99.0	59.0-143			0.940	20
Methyl tert-butyl ether	25.0	24.6	24.8	98.6	99.4	64.0-123			0.820	20
Naphthalene	25.0	21.1	21.8	84.4	87.2	62.0-128			3.26	20
n-Propylbenzene	25.0	23.0	24.1	92.1	96.6	79.0-120			4.69	20
Styrene	25.0	25.1	26.0	100	104	78.0-124			3.35	20
1,1,1,2-Tetrachloroethane	25.0	23.8	25.1	95.4	100	75.0-122			5.08	20
1,1,2,2-Tetrachloroethane	25.0	21.8	21.6	87.4	86.3	71.0-122			1.22	20
Tetrachloroethene	25.0	23.7	25.6	94.8	102	70.0-127			7.62	20
Toluene	25.0	23.5	25.7	94.1	103	77.0-120			8.63	20
1,1,2-Trichlorotrifluoroethane	25.0	29.8	30.3	119	121	61.0-136			1.70	20
1,2,3-Trichlorobenzene	25.0	21.1	22.3	84.5	89.3	61.0-133			5.54	20
1,2,4-Trichlorobenzene	25.0	24.0	24.9	95.9	99.6	69.0-129			3.76	20
1,1,1-Trichloroethane	25.0	26.2	27.7	105	111	68.0-122			5.52	20
1,1,2-Trichloroethane	25.0	23.9	25.0	95.7	100	78.0-120			4.53	20
Trichloroethene	25.0	24.8	26.3	99.2	105	78.0-120			6.01	20
Trichlorofluoromethane	25.0	28.3	29.2	113	117	56.0-137			3.03	20
1,2,3-Trichloropropane	25.0	23.0	22.1	91.8	88.3	72.0-124			3.93	20
1,2,3-Trimethylbenzene	25.0	23.2	24.1	92.8	96.5	75.0-120			3.97	20
1,2,4-Trimethylbenzene	25.0	23.1	24.2	92.3	96.8	75.0-120			4.76	20
1,3,5-Trimethylbenzene	25.0	22.5	23.5	90.1	94.1	75.0-120			4.32	20
Vinyl chloride	25.0	21.7	22.0	86.7	88.1	64.0-133			1.62	20
Xylenes, Total	75.0	71.3	75.3	95.1	100	77.0-120			5.46	20
(S) Toluene-d8				100	102	80.0-120				
(S) Dibromofluoromethane				99.1	98.5	76.0-123				
(S) 4-Bromofluorobenzene				104	103	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

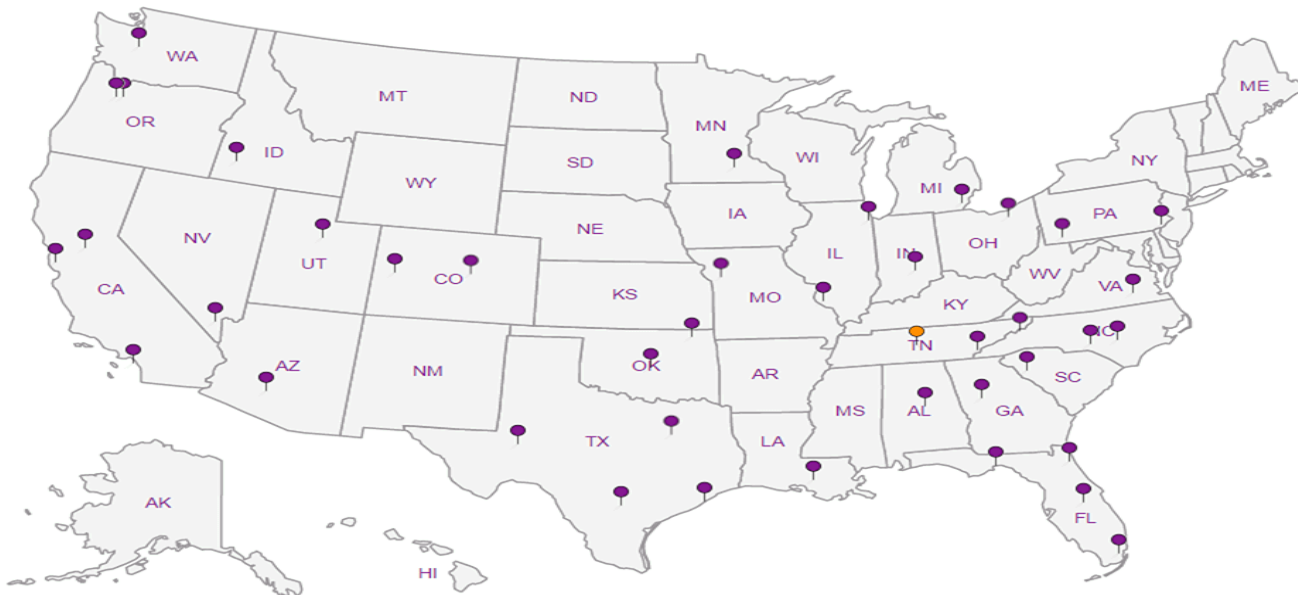
Third Party & Federal Accreditations


A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		


¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc.- WA 1215 Fourth Ave., Suite 1350 Seattle, WA 98161	Billing Information: Attn: Accounts Payable 1215 Fourth Ave., Ste. 1350 Seattle, WA 98161	Pres Chk Analysis / Container / Preservative 2 2 *Alk,Cl,NO3,SO4 250mlHDPE-NoPres NWTPHGX 40mlAmb HCl TOC 250mlAmb-HCl Total Fe Mn 6020 250mlHDPE-HNO3 low level 8260C 40mlAmb-HCl low level RSK175 40mlAmb-HCl	Chain of Custody Page ___ of ___  L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859
	Report to: Bill Haldeman		Email To: bhaldeman@pesenv.com

Project Description: American Linen Supply	City/State Collected: SEATTLE WA
Phone: 206-529-3980 Fax: 206-529-3985	Client Project # 1413.001.02.002
Collected by (print): SHANNON MCKERNAN	Site/Facility ID # 700 DEXTER AVE N SEATTLE
Collected by (signature): 	P.O. # Quote # Date Results Needed


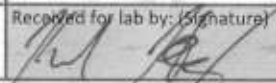
Lab Project # PESENVSWA-141300102	No. of Cntrs
Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day	Shipped Via: FedEX Ground

Immediately Packed on Ice N <u> </u> Y <u> </u>	Acctnum: PESENVSWA Template: T124201 Prelogin: P603202 TSR: 110 - Brian Ford PB: 5-31-17
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Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*Alk,Cl,NO3,SO4 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl
R-MW5-061617	GRAB	GW	25	6/16/17	1005	9	X	X	X	X	X	X
MW112-061617	↓	GW	80	6/16/17	1150	9	X	X	X	X	X	X
MW113-061617	↓	GW	75	↓	1355	9	X	X	X	X	X	X
MW116-061617	↓	GW	45	↓	1410	9	X	X	X	X	X	X
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other	Remarks: *NO3 nitrate has a 48 hour holding time	pH _____ Temp _____ Flow _____ Other _____	Sample Receipt Check COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
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Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier	Tracking # 7372 1955 0785
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Relinquished by: (Signature) 	Date: 6/16/17	Time: 1435	Received by: (Signature) Chris Debe	Trip Blank Received: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	HCL/MeOH TBR
Relinquished by: (Signature) Chris Debe	Date: 6/16/17	Time: 1435	Received by: (Signature)	Temp: 27°	Bottles Received: 36
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 6/17/17	Time: 0845

Remarks	Sample # (lab only)
	01
	02
	03
	04

Hold:	Condition: NCF 10
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MEMORANDUM

TO: Project File **DATE:** July 24, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 16, 2017- Groundwater Samples
LAB: ESC Lab ID L916723

Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 16, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L916723. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L915737 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.7 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

Samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

Samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for acetone, bromomethane, carbon disulfide, 1,2-dibromo-3-chloropropane, and trans-1,4-dichloro-2-butene were identified by the laboratory for sample SCS-2-061217 associated with analytical batch WG991349 (analyzed on June 22, 2017). These results are qualified by the laboratory “J0” to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All sample results for acetone, bromomethane, 1,2-dibromo-3-chloropropane, and trans-1,4-dichloro-2-butene are estimated and qualified (UJ or J).**

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

Method RSK-175:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

USEPA Method 6020:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks at or above the RDL.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL.

Trip Blank Results

USEPA Method 8260C:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample

duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Method RSK-175:

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: A laboratory duplicate sample was performed on non-client samples within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: A laboratory duplicate sample was performed on sample R-MW5-061617. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

EPA Method 9060A: A laboratory duplicate sample was performed on non-client samples within the analytical batch. The primary/duplicate RPD for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Method RSK-175:

MS/MSD analysis was performed on sample R-MW-6-032117. Refer to LCS/LCSD results for additional information.

USEPA Method 6020:

MS/MSD analysis was performed on non-client sample within the analytical batch. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample.

General Chemistry:

SM 2320B: Matrix spike (MS) analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS analysis was performed on sample MW116-061617. MS % Rs for anions were within the laboratory control criteria for water.

EPA Method 9060A: MS/MSD analysis was performed on sample R-MW5-061617. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the method detection limit (MDL) and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 06/16/17 10:05

L916723

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	152000		2710	20000	1	06/23/2017 01:56	WG991499

Sample Narrative:

2320 B-2011 L916723-01 WG991499: ending pH=4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	58300		51.9	1000	1	06/17/2017 10:52	WG990314
Nitrate	253		22.7	100	1	06/17/2017 10:52	WG990314
Sulfate	21800		77.4	5000	1	06/17/2017 10:52	WG990314

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	2590		102	1000	1	06/22/2017 15:52	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	2740		15.0	100	1	06/21/2017 21:07	WG991323
Manganese	1290		0.250	5.00	1	06/21/2017 21:07	WG991323

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	275		0.287	0.678	1	06/19/2017 12:09	WG990586
Ethane	U		0.296	1.29	1	06/19/2017 12:09	WG990586
Ethene	U		0.422	1.27	1	06/19/2017 12:09	WG990586

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U <i>UJ</i>	<u>JO</u>	1.05	25.0	1	06/22/2017 04:56	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 04:56	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 04:56	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 04:56	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 04:56	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 04:56	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 04:56	WG991349
Bromomethane	U <i>UJ</i>	<u>JO</u>	0.157	2.50	1	06/22/2017 04:56	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 04:56	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 04:56	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 04:56	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 04:56	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 04:56	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 04:56	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 04:56	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 04:56	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 04:56	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 04:56	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 04:56	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 04:56	WG991349

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

GC 7/24/17

R-MW5-061617

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 06/16/17 10:05

L916723

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/22/2017 04:56	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 04:56	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 04:56	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 04:56	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 04:56	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 04:56	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 04:56	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 04:56	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 04:56	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 04:56	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 04:56	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 04:56	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 04:56	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 04:56	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 04:56	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 04:56	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 04:56	WG991349
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/22/2017 04:56	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 04:56	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 04:56	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 04:56	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 04:56	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 04:56	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 04:56	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 04:56	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 04:56	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 04:56	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 04:56	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 04:56	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 04:56	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 04:56	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 04:56	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 04:56	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 04:56	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 04:56	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 04:56	WG991349
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 04:56	WG991349
Tetrachloroethene	0.257	J J	0.199	0.500	1	06/22/2017 04:56	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 04:56	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 04:56	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 04:56	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 04:56	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 04:56	WG991349
Trichloroethene	0.245	J J	0.153	0.500	1	06/22/2017 04:56	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 04:56	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 04:56	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 04:56	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 04:56	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 04:56	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 04:56	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 04:56	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 04:56	WG991349
(S) Toluene-d8	96.6			80.0-120		06/22/2017 04:56	WG991349
(S) Dibromofluoromethane	97.3			76.0-123		06/22/2017 04:56	WG991349
(S) 4-Bromofluorobenzene	100			80.0-120		06/22/2017 04:56	WG991349

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Jc 7/24/17

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	24000		2710	20000	1	06/23/2017 10:38	WG991499

Sample Narrative:

2320 B-2011 L916723-02 WG991499: ending pH=4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	1150		51.9	1000	1	06/17/2017 11:17	WG990314
Nitrate	162		22.7	100	1	06/17/2017 11:17	WG990314
Sulfate	1260	J J	77.4	5000	1	06/17/2017 11:17	WG990314

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	5480		102	1000	1	06/22/2017 16:44	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	2560		15.0	100	1	06/21/2017 21:11	WG991323
Manganese	87.1		0.250	5.00	1	06/21/2017 21:11	WG991323

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	1.78		0.287	0.678	1	06/19/2017 12:11	WG990586
Ethane	U		0.296	1.29	1	06/19/2017 12:11	WG990586
Ethene	U		0.422	1.27	1	06/19/2017 12:11	WG990586

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	9.22	J JJO	1.05	25.0	1	06/22/2017 05:18	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 05:18	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 05:18	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 05:18	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 05:18	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 05:18	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 05:18	WG991349
Bromomethane	U	VJ JO	0.157	2.50	1	06/22/2017 05:18	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 05:18	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 05:18	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 05:18	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 05:18	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 05:18	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 05:18	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 05:18	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 05:18	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 05:18	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 05:18	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 05:18	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 05:18	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

OC
7/24/17

MW112-061617

SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.



Collected date/time: 06/16/17 11:50

L916723

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dibromo-3-Chloropropane	U	<i>VJ</i> <u>JO</u>	0.325	2.50	1	06/22/2017 05:18	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 05:18	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 05:18	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 05:18	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 05:18	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 05:18	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 05:18	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 05:18	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 05:18	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 05:18	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/22/2017 05:18	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 05:18	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 05:18	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 05:18	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 05:18	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 05:18	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 05:18	WG991349
trans-1,4-Dichloro-2-butene	U	<i>VJ</i> <u>JO</u>	0.257	5.00	1	06/22/2017 05:18	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 05:18	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 05:18	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 05:18	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 05:18	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 05:18	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 05:18	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 05:18	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 05:18	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 05:18	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 05:18	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 05:18	WG991349
4-Methyl-2-pentanone (MIBK)	8.50		0.823	5.00	1	06/22/2017 05:18	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 05:18	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 05:18	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 05:18	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 05:18	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 05:18	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 05:18	WG991349
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 05:18	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 05:18	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 05:18	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 05:18	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 05:18	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 05:18	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 05:18	WG991349
Trichloroethene	U		0.153	0.500	1	06/22/2017 05:18	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 05:18	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 05:18	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 05:18	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 05:18	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 05:18	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 05:18	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 05:18	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 05:18	WG991349
(S) Toluene-d8	96.9			80.0-120		06/22/2017 05:18	WG991349
(S) Dibromofluoromethane	100			76.0-123		06/22/2017 05:18	WG991349
(S) 4-Bromofluorobenzene	100			80.0-120		06/22/2017 05:18	WG991349

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Handwritten signature and date: Jc 7/24/17



Collected date/time: 06/16/17 13:55

L916723

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	587000		2710	20000	1	06/23/2017 02:17	WG991499

Sample Narrative:

2320 B-2011 L916723-03 WG991499: ending pH=4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	57500		51.9	1000	1	06/17/2017 11:30	WG990314
Nitrate	U		22.7	100	1	06/17/2017 11:30	WG990314
Sulfate	41900		77.4	5000	1	06/17/2017 11:30	WG990314

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	18000		102	1000	1	06/22/2017 18:11	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	14400		15.0	100	1	06/21/2017 21:14	WG991323
Manganese	990		0.250	5.00	1	06/21/2017 21:14	WG991323

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	6520		2.87	6.78	10	06/20/2017 09:32	WG990743
Ethane	147		0.296	1.29	1	06/19/2017 12:17	WG990586
Ethene	U		0.422	1.27	1	06/19/2017 12:17	WG990586

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.90	J JO	1.05	25.0	1	06/22/2017 05:41	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 05:41	WG991349
Benzene	0.468	J J	0.0896	0.500	1	06/22/2017 05:41	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 05:41	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 05:41	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 05:41	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 05:41	WG991349
Bromomethane	U	VJ JO	0.157	2.50	1	06/22/2017 05:41	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 05:41	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 05:41	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 05:41	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 05:41	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 05:41	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 05:41	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 05:41	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 05:41	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 05:41	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 05:41	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 05:41	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 05:41	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Handwritten signature/initials



Collected date/time: 06/16/17 13:55

L916723

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U	US JO	0.325	2.50	1	06/22/2017 05:41	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 05:41	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 05:41	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 05:41	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 05:41	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 05:41	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 05:41	WG991349
1,1-Dichloroethane	0.474	J J	0.114	0.500	1	06/22/2017 05:41	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 05:41	WG991349
1,1-Dichloroethene	5.93		0.188	0.500	1	06/22/2017 05:41	WG991349
cis-1,2-Dichloroethene	4750		9.33	50.0	100	06/26/2017 02:37	WG991349
trans-1,2-Dichloroethene	28.2		0.152	0.500	1	06/22/2017 05:41	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 05:41	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 05:41	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 05:41	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 05:41	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 05:41	WG991349
trans-1,4-Dichloro-2-butene	U	US JO	0.257	5.00	1	06/22/2017 05:41	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 05:41	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 05:41	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 05:41	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 05:41	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 05:41	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 05:41	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 05:41	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 05:41	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 05:41	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 05:41	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 05:41	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 05:41	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 05:41	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 05:41	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 05:41	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 05:41	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 05:41	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 05:41	WG991349
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 05:41	WG991349
Tetrachloroethene	0.522		0.199	0.500	1	06/22/2017 05:41	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 05:41	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 05:41	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 05:41	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 05:41	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 05:41	WG991349
Trichloroethene	148		0.153	0.500	1	06/22/2017 05:41	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 05:41	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 05:41	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 05:41	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 05:41	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 05:41	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 05:41	WG991349
Vinyl chloride	53.3		0.118	0.500	1	06/22/2017 05:41	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 05:41	WG991349
(S) Toluene-d8	99.0			80.0-120		06/22/2017 05:41	WG991349
(S) Toluene-d8	101			80.0-120		06/26/2017 02:37	WG991349
(S) Dibromofluoromethane	101			76.0-123		06/26/2017 02:37	WG991349
(S) Dibromofluoromethane	96.5			76.0-123		06/22/2017 05:41	WG991349

Cp

Tc

Ss

Cn

Si

Qc

GI

AI

Sc

Handwritten signature and date: JC 7/24/17

MW113-061617

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.



Collected date/time: 06/16/17 13:55

L916723

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) 4-Bromofluorobenzene	104			80.0-120		06/26/2017 02:37	WG991349
(S) 4-Bromofluorobenzene	100			80.0-120		06/22/2017 05:41	WG991349

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Handwritten signature and date: J. 7/26/17



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	377000		2710	20000	1	06/23/2017 02:24	WG991499

Sample Narrative:

2320 B-2011 L916723-04 WG991499: ending pH=4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	25100		51.9	1000	1	06/17/2017 11:43	WG990314
Nitrate	U		22.7	100	1	06/17/2017 11:43	WG990314
Sulfate	9310		77.4	5000	1	06/17/2017 11:43	WG990314

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	6800		102	1000	1	06/22/2017 18:25	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	6690		15.0	100	1	06/21/2017 21:18	WG991323
Manganese	793		0.250	5.00	1	06/21/2017 21:18	WG991323

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	8610		5.74	13.6	20	06/20/2017 09:34	WG990743
Ethane	U		0.296	1.29	1	06/19/2017 12:54	WG990586
Ethene	U		0.422	1.27	1	06/19/2017 12:54	WG990586

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U	US JO	1.05	25.0	1	06/22/2017 06:04	WG991349
Acrylonitrile	U		0.873	5.00	1	06/22/2017 06:04	WG991349
Benzene	U		0.0896	0.500	1	06/22/2017 06:04	WG991349
Bromobenzene	U		0.133	0.500	1	06/22/2017 06:04	WG991349
Bromodichloromethane	U		0.0800	0.500	1	06/22/2017 06:04	WG991349
Bromochloromethane	U		0.145	0.500	1	06/22/2017 06:04	WG991349
Bromoform	U		0.186	0.500	1	06/22/2017 06:04	WG991349
Bromomethane	U	US JO	0.157	2.50	1	06/22/2017 06:04	WG991349
n-Butylbenzene	U		0.143	0.500	1	06/22/2017 06:04	WG991349
sec-Butylbenzene	U		0.134	0.500	1	06/22/2017 06:04	WG991349
tert-Butylbenzene	U		0.183	0.500	1	06/22/2017 06:04	WG991349
Carbon disulfide	U		0.101	0.500	1	06/22/2017 06:04	WG991349
Carbon tetrachloride	U		0.159	0.500	1	06/22/2017 06:04	WG991349
Chlorobenzene	U		0.140	0.500	1	06/22/2017 06:04	WG991349
Chlorodibromomethane	U		0.128	0.500	1	06/22/2017 06:04	WG991349
Chloroethane	U		0.141	2.50	1	06/22/2017 06:04	WG991349
Chloroform	U		0.0860	0.500	1	06/22/2017 06:04	WG991349
Chloromethane	U		0.153	1.25	1	06/22/2017 06:04	WG991349
2-Chlorotoluene	U		0.111	0.500	1	06/22/2017 06:04	WG991349
4-Chlorotoluene	U		0.0972	0.500	1	06/22/2017 06:04	WG991349

- 1 Cu
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Handwritten signature and date: JG 7/2/17



Collected date/time: 06/16/17 14:10

L916723

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U	<i>JS</i> <u>JO</u>	0.325	2.50	1	06/22/2017 06:04	WG991349
1,2-Dibromoethane	U		0.193	0.500	1	06/22/2017 06:04	WG991349
Dibromomethane	U		0.117	0.500	1	06/22/2017 06:04	WG991349
1,2-Dichlorobenzene	U		0.101	0.500	1	06/22/2017 06:04	WG991349
1,3-Dichlorobenzene	U		0.130	0.500	1	06/22/2017 06:04	WG991349
1,4-Dichlorobenzene	U		0.121	0.500	1	06/22/2017 06:04	WG991349
Dichlorodifluoromethane	U		0.127	2.50	1	06/22/2017 06:04	WG991349
1,1-Dichloroethane	U		0.114	0.500	1	06/22/2017 06:04	WG991349
1,2-Dichloroethane	U		0.108	0.500	1	06/22/2017 06:04	WG991349
1,1-Dichloroethene	U		0.188	0.500	1	06/22/2017 06:04	WG991349
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/26/2017 02:52	WG991349
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/22/2017 06:04	WG991349
1,2-Dichloropropane	U		0.190	0.500	1	06/22/2017 06:04	WG991349
1,1-Dichloropropene	U		0.128	0.500	1	06/22/2017 06:04	WG991349
1,3-Dichloropropane	U		0.147	1.00	1	06/22/2017 06:04	WG991349
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/22/2017 06:04	WG991349
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/22/2017 06:04	WG991349
trans-1,4-Dichloro-2-butene	U	<i>JS</i> <u>JO</u>	0.257	5.00	1	06/22/2017 06:04	WG991349
2,2-Dichloropropane	U		0.0929	0.500	1	06/22/2017 06:04	WG991349
Di-isopropyl ether	U		0.0924	0.500	1	06/22/2017 06:04	WG991349
Ethylbenzene	U		0.158	0.500	1	06/22/2017 06:04	WG991349
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/22/2017 06:04	WG991349
2-Hexanone	U		0.757	5.00	1	06/22/2017 06:04	WG991349
n-Hexane	U		0.305	5.00	1	06/22/2017 06:04	WG991349
Iodomethane	U		0.377	10.0	1	06/22/2017 06:04	WG991349
Isopropylbenzene	U		0.126	0.500	1	06/22/2017 06:04	WG991349
p-Isopropyltoluene	U		0.138	0.500	1	06/22/2017 06:04	WG991349
2-Butanone (MEK)	U		1.28	5.00	1	06/22/2017 06:04	WG991349
Methylene Chloride	U		1.07	2.50	1	06/22/2017 06:04	WG991349
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/22/2017 06:04	WG991349
Methyl tert-butyl ether	U		0.102	0.500	1	06/22/2017 06:04	WG991349
Naphthalene	U		0.174	2.50	1	06/22/2017 06:04	WG991349
n-Propylbenzene	U		0.162	0.500	1	06/22/2017 06:04	WG991349
Styrene	U		0.117	0.500	1	06/22/2017 06:04	WG991349
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/22/2017 06:04	WG991349
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	06/22/2017 06:04	WG991349
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/22/2017 06:04	WG991349
Tetrachloroethene	U		0.199	0.500	1	06/22/2017 06:04	WG991349
Toluene	U		0.412	0.500	1	06/22/2017 06:04	WG991349
1,2,3-Trichlorobenzene	U		0.164	0.500	1	06/22/2017 06:04	WG991349
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/22/2017 06:04	WG991349
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/22/2017 06:04	WG991349
1,1,2-Trichloroethane	U		0.186	0.500	1	06/22/2017 06:04	WG991349
Trichloroethene	0.303	<i>J</i> <u>J</u>	0.153	0.500	1	06/22/2017 06:04	WG991349
Trichlorofluoromethane	U		0.130	2.50	1	06/22/2017 06:04	WG991349
1,2,3-Trichloropropane	U		0.247	2.50	1	06/22/2017 06:04	WG991349
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/22/2017 06:04	WG991349
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/22/2017 06:04	WG991349
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/22/2017 06:04	WG991349
Vinyl acetate	U		0.645	5.00	1	06/22/2017 06:04	WG991349
Vinyl chloride	U		0.118	0.500	1	06/22/2017 06:04	WG991349
Xylenes, Total	U		0.316	1.50	1	06/22/2017 06:04	WG991349
(S) Toluene-d8	101			80.0-120		06/26/2017 02:52	WG991349
(S) Toluene-d8	99.7			80.0-120		06/22/2017 06:04	WG991349
(S) Dibromofluoromethane	103			76.0-123		06/26/2017 02:52	WG991349
(S) Dibromofluoromethane	100			76.0-123		06/22/2017 06:04	WG991349

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JS
7/29/17

MW116-061617

Collected date/time: 06/16/17 14:10

SAMPLE RESULTS - 04

L916723

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
(S) 4-Bromofluorobenzene	99.7			80.0-120		06/22/2017 06:04	WG991349
(S) 4-Bromofluorobenzene	105			80.0-120		06/26/2017 02:52	WG991349

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Jc
7/24/17

PES Environmental, Inc.- WA

Sample Delivery Group: L917439
Samples Received: 06/21/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page	1	¹Cp
Tc: Table of Contents	2	²Tc
Ss: Sample Summary	3	³Ss
Cn: Case Narrative	4	⁴Cn
Sr: Sample Results	5	⁵Sr
W-MW-02-061917 L917439-01	5	
MW107-061917 L917439-02	7	
W-MW-01-061917 L917439-03	9	
R-MW6-062017 L917439-04	11	
TRIP BLANK L917439-05	14	⁶Qc
Qc: Quality Control Summary	16	⁷Gl
Wet Chemistry by Method 2320 B-2011	16	
Wet Chemistry by Method 9056A	17	⁸Al
Wet Chemistry by Method 9060A	20	
Metals (ICPMS) by Method 6020A	21	⁹Sc
Volatile Organic Compounds (GC) by Method NWTPHGX	22	
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Volatile Organic Compounds (GC/MS) by Method 8260C	25	
Gl: Glossary of Terms	29	
Al: Accreditations & Locations	30	
Sc: Chain of Custody	31	

SAMPLE SUMMARY



W-MW-02-061917 L917439-01 GW

Collected by
Shannon McKernan

Collected date/time
06/19/17 11:10

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG992368	1	06/27/17 07:38	06/27/17 07:38	MCG
Wet Chemistry by Method 9056A	WG991373	1	06/21/17 14:15	06/21/17 14:15	DR
Wet Chemistry by Method 9056A	WG993012	5	06/27/17 20:29	06/27/17 20:29	SAM
Wet Chemistry by Method 9060A	WG991744	10	06/22/17 19:34	06/22/17 19:34	SJM
Metals (ICPMS) by Method 6020A	WG991760	1	06/22/17 14:01	06/23/17 07:04	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG991508	1	06/22/17 12:16	06/22/17 12:16	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG992024	25	06/22/17 15:09	06/22/17 15:09	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 13:46	06/27/17 13:46	ACG

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW107-061917 L917439-02 GW

Collected by
Shannon McKernan

Collected date/time
06/19/17 13:40

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG992368	1	06/27/17 07:45	06/27/17 07:45	MCG
Wet Chemistry by Method 9056A	WG991373	1	06/21/17 13:31	06/21/17 13:31	DR
Wet Chemistry by Method 9060A	WG991744	1	06/22/17 19:51	06/22/17 19:51	SJM
Metals (ICPMS) by Method 6020A	WG991760	1	06/22/17 14:01	06/23/17 07:07	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG991508	1	06/22/17 12:18	06/22/17 12:18	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG992024	20	06/22/17 15:12	06/22/17 15:12	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 14:03	06/27/17 14:03	ACG

W-MW-01-061917 L917439-03 GW

Collected by
Shannon McKernan

Collected date/time
06/19/17 16:20

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG992368	1	06/27/17 07:51	06/27/17 07:51	MCG
Wet Chemistry by Method 9056A	WG991373	1	06/21/17 14:00	06/21/17 14:00	DR
Wet Chemistry by Method 9060A	WG991744	1	06/22/17 20:04	06/22/17 20:04	SJM
Metals (ICPMS) by Method 6020A	WG991760	1	06/22/17 14:01	06/23/17 07:11	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG991508	1	06/22/17 12:20	06/22/17 12:20	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 14:20	06/27/17 14:20	ACG

R-MW6-062017 L917439-04 GW

Collected by
Shannon McKernan

Collected date/time
06/20/17 09:10

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG992368	1	06/27/17 07:58	06/27/17 07:58	MCG
Wet Chemistry by Method 9056A	WG991373	1	06/21/17 21:13	06/21/17 21:13	DR
Wet Chemistry by Method 9060A	WG991744	1	06/22/17 21:31	06/22/17 21:31	SJM
Metals (ICPMS) by Method 6020A	WG991760	1	06/22/17 14:01	06/23/17 08:09	LAT
Volatile Organic Compounds (GC) by Method NWTPHGX	WG991730	1	06/22/17 06:44	06/22/17 06:44	BMB
Volatile Organic Compounds (GC) by Method RSK175	WG991508	1	06/22/17 12:22	06/22/17 12:22	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG992024	10	06/22/17 15:14	06/22/17 15:14	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 14:37	06/27/17 14:37	ACG

TRIP BLANK L917439-05 GW

Collected by
Shannon McKernan

Collected date/time
06/20/17 00:00

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG991730	1	06/22/17 01:33	06/22/17 01:33	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 12:54	06/27/17 12:54	ACG



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	520000		2710	20000	1	06/27/2017 07:38	WG992368

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	103000		260	5000	5	06/27/2017 20:29	WG993012
Nitrate	U	Q	22.7	100	1	06/21/2017 14:15	WG991373
Sulfate	U		77.4	5000	1	06/21/2017 14:15	WG991373

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	116000		1020	10000	10	06/22/2017 19:34	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	33700		15.0	100	1	06/23/2017 07:04	WG991760
Manganese	2980		0.250	5.00	1	06/23/2017 07:04	WG991760

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	16900		7.18	17.0	25	06/22/2017 15:09	WG992024
Ethane	U		0.296	1.29	1	06/22/2017 12:16	WG991508
Ethene	3.71		0.422	1.27	1	06/22/2017 12:16	WG991508

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	8.12	J	1.05	25.0	1	06/27/2017 13:46	WG993152
Acrylonitrile	U	JO J4	0.873	5.00	1	06/27/2017 13:46	WG993152
Benzene	0.307	J	0.0896	0.500	1	06/27/2017 13:46	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 13:46	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 13:46	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 13:46	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 13:46	WG993152
Bromomethane	U	JO	0.157	2.50	1	06/27/2017 13:46	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 13:46	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 13:46	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 13:46	WG993152
Carbon disulfide	0.386	J	0.101	0.500	1	06/27/2017 13:46	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 13:46	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 13:46	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 13:46	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 13:46	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 13:46	WG993152
Chloromethane	U	JO	0.153	1.25	1	06/27/2017 13:46	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 13:46	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 13:46	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/27/2017 13:46	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 13:46	WG993152
Dibromomethane	U	JO	0.117	0.500	1	06/27/2017 13:46	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/19/17 11:10

L917439

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 13:46	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 13:46	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 13:46	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 13:46	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 13:46	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 13:46	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 13:46	WG993152
cis-1,2-Dichloroethene	18.2		0.0933	0.500	1	06/27/2017 13:46	WG993152
trans-1,2-Dichloroethene	0.746		0.152	0.500	1	06/27/2017 13:46	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 13:46	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 13:46	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 13:46	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 13:46	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 13:46	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 13:46	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 13:46	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 13:46	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 13:46	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 13:46	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 13:46	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 13:46	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 13:46	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 13:46	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 13:46	WG993152
2-Butanone (MEK)	3.57	J JO	1.28	5.00	1	06/27/2017 13:46	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 13:46	WG993152
4-Methyl-2-pentanone (MIBK)	0.929	J JO	0.823	5.00	1	06/27/2017 13:46	WG993152
Methyl tert-butyl ether	U	JO	0.102	0.500	1	06/27/2017 13:46	WG993152
Naphthalene	U	JO	0.174	2.50	1	06/27/2017 13:46	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 13:46	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 13:46	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 13:46	WG993152
1,1,2,2-Tetrachloroethane	U	JO	0.130	0.500	1	06/27/2017 13:46	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 13:46	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 13:46	WG993152
Toluene	0.970		0.412	0.500	1	06/27/2017 13:46	WG993152
1,2,3-Trichlorobenzene	U	JO	0.164	0.500	1	06/27/2017 13:46	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 13:46	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 13:46	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 13:46	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 13:46	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 13:46	WG993152
1,2,3-Trichloropropane	U	JO J4	0.247	2.50	1	06/27/2017 13:46	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 13:46	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 13:46	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 13:46	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 13:46	WG993152
Vinyl chloride	25.6		0.118	0.500	1	06/27/2017 13:46	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 13:46	WG993152
(S) Toluene-d8	111			80.0-120		06/27/2017 13:46	WG993152
(S) Dibromofluoromethane	99.7			76.0-123		06/27/2017 13:46	WG993152
(S) 4-Bromofluorobenzene	97.8			80.0-120		06/27/2017 13:46	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	651000		2710	20000	1	06/27/2017 07:45	WG992368

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	89700		51.9	1000	1	06/21/2017 13:31	WG991373
Nitrate	U		22.7	100	1	06/21/2017 13:31	WG991373
Sulfate	U		77.4	5000	1	06/21/2017 13:31	WG991373

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	91000		102	1000	1	06/22/2017 19:51	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	10500		15.0	100	1	06/23/2017 07:07	WG991760
Manganese	955		0.250	5.00	1	06/23/2017 07:07	WG991760

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	7350		5.74	13.6	20	06/22/2017 15:12	WG992024
Ethane	U		0.296	1.29	1	06/22/2017 12:18	WG991508
Ethene	205		0.422	1.27	1	06/22/2017 12:18	WG991508

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.99	J	1.05	25.0	1	06/27/2017 14:03	WG993152
Acrylonitrile	U	JO J4	0.873	5.00	1	06/27/2017 14:03	WG993152
Benzene	0.238	J	0.0896	0.500	1	06/27/2017 14:03	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:03	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:03	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:03	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:03	WG993152
Bromomethane	U	JO	0.157	2.50	1	06/27/2017 14:03	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:03	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:03	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:03	WG993152
Carbon disulfide	0.162	J	0.101	0.500	1	06/27/2017 14:03	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:03	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:03	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:03	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:03	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 14:03	WG993152
Chloromethane	U	JO	0.153	1.25	1	06/27/2017 14:03	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:03	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:03	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/27/2017 14:03	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:03	WG993152
Dibromomethane	U	JO	0.117	0.500	1	06/27/2017 14:03	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:03	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:03	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:03	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:03	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 14:03	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 14:03	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 14:03	WG993152
cis-1,2-Dichloroethene	7.29		0.0933	0.500	1	06/27/2017 14:03	WG993152
trans-1,2-Dichloroethene	12.6		0.152	0.500	1	06/27/2017 14:03	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:03	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:03	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:03	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:03	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:03	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 14:03	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:03	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 14:03	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:03	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:03	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:03	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:03	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:03	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:03	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:03	WG993152
2-Butanone (MEK)	U	JO	1.28	5.00	1	06/27/2017 14:03	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:03	WG993152
4-Methyl-2-pentanone (MIBK)	U	JO	0.823	5.00	1	06/27/2017 14:03	WG993152
Methyl tert-butyl ether	U	JO	0.102	0.500	1	06/27/2017 14:03	WG993152
Naphthalene	U	JO	0.174	2.50	1	06/27/2017 14:03	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:03	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:03	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:03	WG993152
1,1,2,2-Tetrachloroethane	U	JO	0.130	0.500	1	06/27/2017 14:03	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:03	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 14:03	WG993152
Toluene	0.700		0.412	0.500	1	06/27/2017 14:03	WG993152
1,2,3-Trichlorobenzene	U	JO	0.164	0.500	1	06/27/2017 14:03	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:03	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:03	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:03	WG993152
Trichloroethene	0.290	J	0.153	0.500	1	06/27/2017 14:03	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:03	WG993152
1,2,3-Trichloropropane	U	JO J4	0.247	2.50	1	06/27/2017 14:03	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:03	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:03	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:03	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 14:03	WG993152
Vinyl chloride	15.0		0.118	0.500	1	06/27/2017 14:03	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:03	WG993152
(S) Toluene-d8	111			80.0-120		06/27/2017 14:03	WG993152
(S) Dibromofluoromethane	99.6			76.0-123		06/27/2017 14:03	WG993152
(S) 4-Bromofluorobenzene	98.1			80.0-120		06/27/2017 14:03	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	250000		2710	20000	1	06/27/2017 07:51	WG992368

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	27600		51.9	1000	1	06/21/2017 14:00	WG991373
Nitrate	72.7	J	22.7	100	1	06/21/2017 14:00	WG991373
Sulfate	28300		77.4	5000	1	06/21/2017 14:00	WG991373

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	3000		102	1000	1	06/22/2017 20:04	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	9480		15.0	100	1	06/23/2017 07:11	WG991760
Manganese	321		0.250	5.00	1	06/23/2017 07:11	WG991760

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	461		0.287	0.678	1	06/22/2017 12:20	WG991508
Ethane	U		0.296	1.29	1	06/22/2017 12:20	WG991508
Ethene	U		0.422	1.27	1	06/22/2017 12:20	WG991508

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/27/2017 14:20	WG993152
Acrylonitrile	U	JO J4	0.873	5.00	1	06/27/2017 14:20	WG993152
Benzene	0.158	J	0.0896	0.500	1	06/27/2017 14:20	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:20	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:20	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:20	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:20	WG993152
Bromomethane	U	JO	0.157	2.50	1	06/27/2017 14:20	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:20	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:20	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:20	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 14:20	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:20	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:20	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:20	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:20	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 14:20	WG993152
Chloromethane	U	JO	0.153	1.25	1	06/27/2017 14:20	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:20	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:20	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/27/2017 14:20	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:20	WG993152
Dibromomethane	U	JO	0.117	0.500	1	06/27/2017 14:20	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:20	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:20	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:20	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:20	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 14:20	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 14:20	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 14:20	WG993152
cis-1,2-Dichloroethene	0.320	J	0.0933	0.500	1	06/27/2017 14:20	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 14:20	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:20	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:20	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:20	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:20	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:20	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 14:20	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:20	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 14:20	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:20	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:20	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:20	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:20	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:20	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:20	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:20	WG993152
2-Butanone (MEK)	U	JO	1.28	5.00	1	06/27/2017 14:20	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:20	WG993152
4-Methyl-2-pentanone (MIBK)	U	JO	0.823	5.00	1	06/27/2017 14:20	WG993152
Methyl tert-butyl ether	U	JO	0.102	0.500	1	06/27/2017 14:20	WG993152
Naphthalene	U	JO	0.174	2.50	1	06/27/2017 14:20	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:20	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:20	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:20	WG993152
1,1,2,2-Tetrachloroethane	U	JO	0.130	0.500	1	06/27/2017 14:20	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:20	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 14:20	WG993152
Toluene	0.931		0.412	0.500	1	06/27/2017 14:20	WG993152
1,2,3-Trichlorobenzene	U	JO	0.164	0.500	1	06/27/2017 14:20	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:20	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:20	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:20	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 14:20	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:20	WG993152
1,2,3-Trichloropropane	U	JO J4	0.247	2.50	1	06/27/2017 14:20	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:20	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:20	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:20	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 14:20	WG993152
Vinyl chloride	1.09		0.118	0.500	1	06/27/2017 14:20	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:20	WG993152
(S) Toluene-d8	112			80.0-120		06/27/2017 14:20	WG993152
(S) Dibromofluoromethane	99.8			76.0-123		06/27/2017 14:20	WG993152
(S) 4-Bromofluorobenzene	99.0			80.0-120		06/27/2017 14:20	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	718000		2710	20000	1	06/27/2017 07:58	WG992368

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	11100		51.9	1000	1	06/21/2017 21:13	WG991373
Nitrate	U		22.7	100	1	06/21/2017 21:13	WG991373
Sulfate	85700		77.4	5000	1	06/21/2017 21:13	WG991373

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	13600		102	1000	1	06/22/2017 21:31	WG991744

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	27000		15.0	100	1	06/23/2017 08:09	WG991760
Manganese	8280		0.250	5.00	1	06/23/2017 08:09	WG991760

Volatile Organic Compounds (GC) by Method NWTPHGX

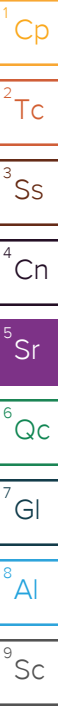
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	38.5	J	31.6	100	1	06/22/2017 06:44	WG991730
(S) a,a,a-Trifluorotoluene(FID)	99.1			77.0-122		06/22/2017 06:44	WG991730

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	6980		2.87	6.78	10	06/22/2017 15:14	WG992024
Ethane	10.7		0.296	1.29	1	06/22/2017 12:22	WG991508
Ethene	11.2		0.422	1.27	1	06/22/2017 12:22	WG991508

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/27/2017 14:37	WG993152
Acrylonitrile	U	JO J4	0.873	5.00	1	06/27/2017 14:37	WG993152
Benzene	0.167	J	0.0896	0.500	1	06/27/2017 14:37	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:37	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:37	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:37	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:37	WG993152
Bromomethane	U	JO	0.157	2.50	1	06/27/2017 14:37	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:37	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:37	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:37	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 14:37	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:37	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:37	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:37	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:37	WG993152





Collected date/time: 06/20/17 09:10

L917439

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloroform	U		0.0860	0.500	1	06/27/2017 14:37	WG993152
Chloromethane	U	JO	0.153	1.25	1	06/27/2017 14:37	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:37	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:37	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/27/2017 14:37	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:37	WG993152
Dibromomethane	U	JO	0.117	0.500	1	06/27/2017 14:37	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:37	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:37	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:37	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:37	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 14:37	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 14:37	WG993152
1,1-Dichloroethene	0.337	J	0.188	0.500	1	06/27/2017 14:37	WG993152
cis-1,2-Dichloroethene	37.3		0.0933	0.500	1	06/27/2017 14:37	WG993152
trans-1,2-Dichloroethene	0.445	J	0.152	0.500	1	06/27/2017 14:37	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:37	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:37	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:37	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:37	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:37	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 14:37	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:37	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 14:37	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:37	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:37	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:37	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:37	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:37	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:37	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:37	WG993152
2-Butanone (MEK)	U	JO	1.28	5.00	1	06/27/2017 14:37	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:37	WG993152
4-Methyl-2-pentanone (MIBK)	U	JO	0.823	5.00	1	06/27/2017 14:37	WG993152
Methyl tert-butyl ether	U	JO	0.102	0.500	1	06/27/2017 14:37	WG993152
Naphthalene	U	JO	0.174	2.50	1	06/27/2017 14:37	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:37	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:37	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:37	WG993152
1,1,2,2-Tetrachloroethane	U	JO	0.130	0.500	1	06/27/2017 14:37	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:37	WG993152
Tetrachloroethene	1.19		0.199	0.500	1	06/27/2017 14:37	WG993152
Toluene	0.619		0.412	0.500	1	06/27/2017 14:37	WG993152
1,2,3-Trichlorobenzene	U	JO	0.164	0.500	1	06/27/2017 14:37	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:37	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:37	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:37	WG993152
Trichloroethene	0.878		0.153	0.500	1	06/27/2017 14:37	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:37	WG993152
1,2,3-Trichloropropane	U	JO J4	0.247	2.50	1	06/27/2017 14:37	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:37	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:37	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:37	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 14:37	WG993152
Vinyl chloride	43.9		0.118	0.500	1	06/27/2017 14:37	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:37	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	112			80.0-120		06/27/2017 14:37	WG993152
(S) Dibromofluoromethane	99.6			76.0-123		06/27/2017 14:37	WG993152
(S) 4-Bromofluorobenzene	99.2			80.0-120		06/27/2017 14:37	WG993152

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Collected date/time: 06/20/17 00:00

L917439

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 01:33	WG991730
(S) a,a,a-Trifluorotoluene(FID)	99.0			77.0-122		06/22/2017 01:33	WG991730

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/27/2017 12:54	WG993152
Acrylonitrile	U	JO J4	0.873	5.00	1	06/27/2017 12:54	WG993152
Benzene	U		0.0896	0.500	1	06/27/2017 12:54	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 12:54	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 12:54	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 12:54	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 12:54	WG993152
Bromomethane	U	JO	0.157	2.50	1	06/27/2017 12:54	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 12:54	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 12:54	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 12:54	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 12:54	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 12:54	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 12:54	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 12:54	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 12:54	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 12:54	WG993152
Chloromethane	U	JO	0.153	1.25	1	06/27/2017 12:54	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 12:54	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 12:54	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/27/2017 12:54	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 12:54	WG993152
Dibromomethane	U	JO	0.117	0.500	1	06/27/2017 12:54	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 12:54	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 12:54	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 12:54	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 12:54	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 12:54	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 12:54	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 12:54	WG993152
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/27/2017 12:54	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 12:54	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 12:54	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 12:54	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 12:54	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 12:54	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 12:54	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 12:54	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 12:54	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 12:54	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 12:54	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 12:54	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 12:54	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 12:54	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 12:54	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 12:54	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 12:54	WG993152
2-Butanone (MEK)	U	JO	1.28	5.00	1	06/27/2017 12:54	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 12:54	WG993152

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/20/17 00:00

L917439

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U	<u>JO</u>	0.823	5.00	1	06/27/2017 12:54	WG993152
Methyl tert-butyl ether	U	<u>JO</u>	0.102	0.500	1	06/27/2017 12:54	WG993152
Naphthalene	U	<u>JO</u>	0.174	2.50	1	06/27/2017 12:54	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 12:54	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 12:54	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 12:54	WG993152
1,1,2,2-Tetrachloroethane	U	<u>JO</u>	0.130	0.500	1	06/27/2017 12:54	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 12:54	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 12:54	WG993152
Toluene	U		0.412	0.500	1	06/27/2017 12:54	WG993152
1,2,3-Trichlorobenzene	U	<u>JO</u>	0.164	0.500	1	06/27/2017 12:54	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 12:54	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 12:54	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 12:54	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 12:54	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 12:54	WG993152
1,2,3-Trichloropropane	U	<u>JO J4</u>	0.247	2.50	1	06/27/2017 12:54	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 12:54	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 12:54	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 12:54	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 12:54	WG993152
Vinyl chloride	U		0.118	0.500	1	06/27/2017 12:54	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 12:54	WG993152
(S) Toluene-d8	114			80.0-120		06/27/2017 12:54	WG993152
(S) Dibromofluoromethane	97.6			76.0-123		06/27/2017 12:54	WG993152
(S) 4-Bromofluorobenzene	97.1			80.0-120		06/27/2017 12:54	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3228961-1 06/26/17 19:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	5320	J	2710	20000

¹ Cp

² Tc

³ Ss

L917181-09 Original Sample (OS) • Duplicate (DUP)

(OS) L917181-09 06/26/17 19:37 • (DUP) R3228961-3 06/26/17 19:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	274000	276000	1	1.00		20

⁴ Cn

⁵ Sr

L917461-04 Original Sample (OS) • Duplicate (DUP)

(OS) L917461-04 06/27/17 09:00 • (DUP) R3228961-8 06/27/17 09:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	1050000	1050000	1	0.000		20

⁶ Qc

⁷ Gl

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228961-4 06/26/17 20:29 • (LCSD) R3228961-7 06/27/17 07:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	110000	106000	110	106	85.0-115			4.00	20

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3227820-1 06/21/17 08:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	103	J	51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L917437-01 Original Sample (OS) • Duplicate (DUP)

(OS) L917437-01 06/21/17 14:30 • (DUP) R3227820-4 06/21/17 14:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	40100	40200	1	0		15
Nitrate	1590	1670	1	5		15

L917437-11 Original Sample (OS) • Duplicate (DUP)

(OS) L917437-11 06/21/17 18:29 • (DUP) R3227820-6 06/21/17 18:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	U	730	1	200	J3	15
Sulfate	647	501	1	25	J P1	15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227820-2 06/21/17 08:47 • (LCSD) R3227820-3 06/21/17 09:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	38800	39100	97	98	80-120			1	15
Nitrate	8000	7940	8010	99	100	80-120			1	15
Sulfate	40000	38900	39200	97	98	80-120			1	15

L917437-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L917437-04 06/21/17 15:59 • (MS) R3227820-5 06/21/17 16:14

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	5570	55200	99	1	80-120	
Nitrate	5000	3950	8890	99	1	80-120	
Sulfate	50000	15800	65500	99	1	80-120	



L917437-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917437-12 06/21/17 18:58 • (MS) R3227820-7 06/21/17 19:13 • (MSD) R3227820-8 06/21/17 19:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	5000	800	4960	4980	83	84	1	80-120			0	15
Sulfate	50000	U	49100	49300	98	99	1	80-120			0	15

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3229363-1 06/27/17 16:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L916411-01 Original Sample (OS) • Duplicate (DUP)

(OS) L916411-01 06/27/17 17:59 • (DUP) R3229363-5 06/27/17 18:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	78400	78300	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229363-2 06/27/17 16:29 • (LCSD) R3229363-3 06/27/17 17:49

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	38900	39200	97	98	80-120			1	15

L916953-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L916953-06 06/27/17 19:49 • (MS) R3229363-6 06/27/17 19:59

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	34700	87500	105	1	80-120	

L917418-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917418-15 06/27/17 22:38 • (MS) R3229363-8 06/27/17 23:08 • (MSD) R3229363-9 06/27/17 23:18

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	11300	64300	65200	106	108	1	80-120			1	15



Method Blank (MB)

(MB) R3228098-1 06/22/17 13:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L916367-01 Original Sample (OS) • Duplicate (DUP)

(OS) L916367-01 06/22/17 14:59 • (DUP) R3228098-3 06/22/17 15:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	791	1	0		20

L917439-04 Original Sample (OS) • Duplicate (DUP)

(OS) L917439-04 06/22/17 21:31 • (DUP) R3228098-7 06/22/17 21:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	13600	13800	1	1		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228098-2 06/22/17 14:42 • (LCSD) R3228098-6 06/22/17 17:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	69900	72200	93	96	85-115			3	20

L916723-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916723-01 06/22/17 15:52 • (MS) R3228098-4 06/22/17 16:10 • (MSD) R3228098-5 06/22/17 16:28

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	2590	46200	47800	87	90	1	80-120			3	20



Method Blank (MB)

(MB) R3228105-1 06/23/17 05:46

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228105-2 06/23/17 05:49 • (LCSD) R3228105-3 06/23/17 05:53

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5230	5030	105	101	80-120			4	20
Manganese	50.0	47.7	47.0	95	94	80-120			1	20

5 Sr

6 Qc

L916811-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916811-01 06/23/17 05:57 • (MS) R3228105-5 06/23/17 06:04 • (MSD) R3228105-6 06/23/17 06:07

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	17.7	5100	5040	102	100	1	75-125			1	20
Manganese	50.0	0.641	47.3	46.6	93	92	1	75-125			1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3229107-3 06/22/17 00:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	99.5			77.0-122

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229107-1 06/21/17 22:59 • (LCSD) R3229107-2 06/21/17 23:21

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	5640	5700	103	104	72.0-134			1.01	20
(S) a,a,a-Trifluorotoluene(FID)				106	106	77.0-122				

L917439-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917439-04 06/22/17 06:44 • (MS) R3229107-4 06/22/17 08:04 • (MSD) R3229107-5 06/22/17 08:26

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	38.5	5750	6650	104	120	1	23.0-159			14.6	20
(S) a,a,a-Trifluorotoluene(FID)					106	107		77.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3227836-1 06/22/17 11:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L917251-01 Original Sample (OS) • Duplicate (DUP)

(OS) L917251-01 06/22/17 11:23 • (DUP) R3227836-2 06/22/17 11:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	721	660	1	8.83		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L917439-03 Original Sample (OS) • Duplicate (DUP)

(OS) L917439-03 06/22/17 12:20 • (DUP) R3227836-3 06/22/17 12:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	461	446	1	3.47		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227836-4 06/22/17 12:35 • (LCSD) R3227836-5 06/22/17 12:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	68.2	66.6	101	98.3	70.0-130			2.28	20
Ethane	129	122	124	94.7	96.0	70.0-130			1.33	20
Ethene	127	117	118	92.1	93.2	70.0-130			1.20	20



Method Blank (MB)

(MB) R3227931-1 06/22/17 15:02

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L917449-10 Original Sample (OS) • Duplicate (DUP)

(OS) L917449-10 06/22/17 15:20 • (DUP) R3227931-2 06/22/17 15:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	2360	2260	5	4.43		20

⁷ Gl

⁸ Al

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227931-3 06/22/17 15:34 • (LCSD) R3227931-4 06/22/17 15:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	70.1	77.4	103	114	70.0-130			9.99	20

⁹ Sc



Method Blank (MB)

(MB) R3229094-3 06/27/17 12:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U	<u>JO J4</u>	0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U	<u>JO</u>	0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U	<u>JO</u>	0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U	<u>JO</u>	0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U	<u>JO</u>	0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U	<u>JO</u>	0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U	<u>JO</u>	0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3229094-3 06/27/17 12:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U	JO	1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U	JO	0.823	5.00
Methyl tert-butyl ether	U	JO	0.102	0.500
Naphthalene	U	JO	0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U	JO	0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U	JO	0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U	JO J4	0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	112			80.0-120
(S) Dibromofluoromethane	99.5			76.0-123
(S) 4-Bromofluorobenzene	98.0			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229094-1 06/27/17 10:55 • (LCSD) R3229094-2 06/27/17 11:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	104	103	83.6	82.1	10.0-160			1.74	23
Acrylonitrile	125	80.1	73.8	64.1	59.1	60.0-142	J4	J4	8.18	20
Benzene	25.0	22.8	23.3	91.2	93.1	69.0-123			2.11	20
Bromobenzene	25.0	23.5	23.3	94.0	93.2	79.0-120			0.800	20
Bromodichloromethane	25.0	21.2	21.9	84.8	87.5	76.0-120			3.17	20
Bromochloromethane	25.0	22.1	21.9	88.4	87.8	76.0-122			0.740	20
Bromoform	25.0	20.5	19.8	82.0	79.2	67.0-132			3.48	20
Bromomethane	25.0	16.6	18.9	66.4	75.6	18.0-160			13.0	20
n-Butylbenzene	25.0	25.3	26.0	101	104	72.0-126			2.75	20
sec-Butylbenzene	25.0	24.9	25.2	99.6	101	74.0-121			1.15	20
tert-Butylbenzene	25.0	24.6	24.9	98.3	99.6	75.0-122			1.24	20
Carbon disulfide	25.0	25.1	26.0	101	104	55.0-127			3.48	20
Carbon tetrachloride	25.0	20.4	21.6	81.7	86.4	63.0-122			5.61	20
Chlorobenzene	25.0	25.7	26.0	103	104	79.0-121			1.14	20
Chlorodibromomethane	25.0	23.5	22.8	94.1	91.1	75.0-125			3.28	20
Chloroethane	25.0	21.6	23.0	86.4	91.9	47.0-152			6.13	20
Chloroform	25.0	20.9	21.3	83.7	85.3	72.0-121			1.97	20
Chloromethane	25.0	19.9	20.9	79.6	83.5	48.0-139			4.73	20
2-Chlorotoluene	25.0	24.4	24.8	97.7	99.3	74.0-122			1.55	20
4-Chlorotoluene	25.0	25.1	24.9	100	99.6	79.0-120			0.800	20
1,2-Dibromo-3-Chloropropane	25.0	16.8	16.0	67.3	64.1	64.0-127			4.86	20
1,2-Dibromoethane	25.0	21.6	21.4	86.5	85.7	77.0-123			0.980	20
Dibromomethane	25.0	19.9	20.4	79.4	81.8	78.0-120			2.93	20
1,2-Dichlorobenzene	25.0	25.2	25.3	101	101	80.0-120			0.450	20
1,3-Dichlorobenzene	25.0	25.6	25.2	103	101	72.0-123			1.55	20
1,4-Dichlorobenzene	25.0	25.3	25.2	101	101	77.0-120			0.310	20
Dichlorodifluoromethane	25.0	21.2	22.1	84.7	88.5	49.0-155			4.50	20
1,1-Dichloroethane	25.0	21.7	22.1	86.9	88.5	70.0-126			1.73	20
1,2-Dichloroethane	25.0	19.3	19.3	77.2	77.3	67.0-126			0.110	20
1,1-Dichloroethene	25.0	24.9	26.5	99.5	106	64.0-129			6.29	20
cis-1,2-Dichloroethene	25.0	22.1	22.6	88.5	90.4	73.0-120			2.17	20
trans-1,2-Dichloroethene	25.0	22.6	23.3	90.5	93.2	71.0-121			2.89	20
1,2-Dichloropropane	25.0	22.4	22.8	89.6	91.2	75.0-125			1.76	20
1,1-Dichloropropene	25.0	22.3	22.9	89.3	91.7	71.0-129			2.67	20
1,3-Dichloropropane	25.0	22.0	21.8	87.8	87.3	80.0-121			0.540	20
cis-1,3-Dichloropropene	25.0	23.5	23.6	93.9	94.3	79.0-123			0.440	20
trans-1,3-Dichloropropene	25.0	22.1	21.8	88.6	87.4	74.0-127			1.35	20
trans-1,4-Dichloro-2-butene	25.0	15.3	13.9	61.3	55.5	55.0-134			9.91	20
2,2-Dichloropropane	25.0	20.7	22.1	82.9	88.3	60.0-125			6.28	20
Di-isopropyl ether	25.0	19.3	19.4	77.3	77.4	59.0-133			0.190	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229094-1 06/27/17 10:55 • (LCSD) R3229094-2 06/27/17 11:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	26.3	27.0	105	108	77.0-120			2.44	20
Hexachloro-1,3-butadiene	25.0	21.8	23.7	87.3	94.9	64.0-131			8.38	20
2-Hexanone	125	106	106	84.5	84.8	58.0-147			0.330	20
n-Hexane	25.0	21.7	22.9	86.6	91.7	56.0-124			5.72	20
Iodomethane	125	112	119	89.7	95.0	57.0-140			5.82	20
Isopropylbenzene	25.0	24.9	25.3	99.6	101	75.0-120			1.78	20
p-Isopropyltoluene	25.0	24.9	25.4	99.6	102	74.0-126			1.93	20
2-Butanone (MEK)	125	80.7	79.5	64.5	63.6	37.0-158			1.44	20
Methylene Chloride	25.0	22.8	22.9	91.1	91.8	66.0-121			0.710	20
4-Methyl-2-pentanone (MIBK)	125	83.9	81.4	67.1	65.1	59.0-143			2.94	20
Methyl tert-butyl ether	25.0	18.2	17.9	72.7	71.5	64.0-123			1.68	20
Naphthalene	25.0	16.8	16.2	67.2	65.0	62.0-128			3.40	20
n-Propylbenzene	25.0	25.0	25.3	100	101	79.0-120			1.10	20
Styrene	25.0	25.4	25.5	102	102	78.0-124			0.340	20
1,1,1,2-Tetrachloroethane	25.0	23.9	24.1	95.5	96.4	75.0-122			0.940	20
1,1,2,2-Tetrachloroethane	25.0	19.3	18.1	77.1	72.3	71.0-122			6.51	20
1,1,2-Trichlorotrifluoroethane	25.0	24.6	25.7	98.2	103	61.0-136			4.46	20
Tetrachloroethene	25.0	26.8	27.3	107	109	70.0-127			1.89	20
Toluene	25.0	25.8	26.5	103	106	77.0-120			2.79	20
1,2,3-Trichlorobenzene	25.0	19.2	18.8	76.9	75.0	61.0-133			2.43	20
1,2,4-Trichlorobenzene	25.0	23.2	23.2	93.0	92.8	69.0-129			0.220	20
1,1,1-Trichloroethane	25.0	22.4	22.8	89.5	91.1	68.0-122			1.71	20
1,1,2-Trichloroethane	25.0	22.2	21.9	88.7	87.4	78.0-120			1.45	20
Trichloroethene	25.0	23.5	24.2	94.0	96.8	78.0-120			3.01	20
Trichlorofluoromethane	25.0	22.3	23.4	89.4	93.8	56.0-137			4.82	20
1,2,3-Trichloropropane	25.0	17.6	17.1	70.4	68.4	72.0-124	J4	J4	2.92	20
1,2,4-Trimethylbenzene	25.0	24.9	25.2	99.6	101	75.0-120			1.22	20
1,2,3-Trimethylbenzene	25.0	25.4	25.2	102	101	75.0-120			0.700	20
1,3,5-Trimethylbenzene	25.0	24.7	25.1	98.6	101	75.0-120			1.93	20
Vinyl acetate	125	84.3	80.9	67.4	64.7	46.0-160			4.15	20
Vinyl chloride	25.0	21.5	23.2	86.2	92.7	64.0-133			7.26	20
Xylenes, Total	75.0	76.8	79.3	102	106	77.0-120			3.20	20
(S) Toluene-d8				113	114	80.0-120				
(S) Dibromofluoromethane				94.6	95.2	76.0-123				
(S) 4-Bromofluorobenzene				99.1	98.3	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

- ¹
Cp
- ²
Tc
- ³
Ss
- ⁴
Cn
- ⁵
Sr
- ⁶
Qc
- ⁷
Gl
- ⁸
Al
- ⁹
Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

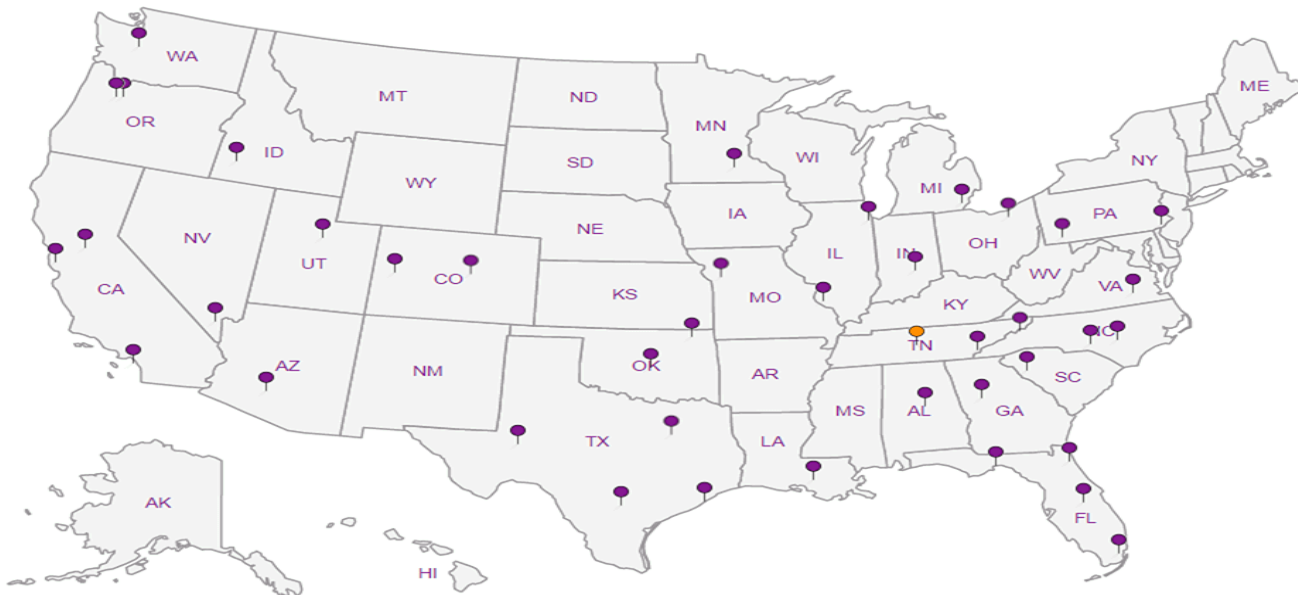
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project
Description: **American Linen Supply**

City/State Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

No. of
Cnts

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	*Alk, Cl, NO3, SO4 250ml HDPE-No Pres	NWTPHGX 40ml Amb-HCl	TOC 250ml Amb-HCl	Total Fe Mn 6020 250ml HDPE-HNO3	low level 8260C 40ml Amb-HCl	low level RSK175 40ml Amb-HCl
W-MW-02-061917	GRAB	GW	75	6/19/17	1110	9	X	X	X	X	X	X
MW107-061917	↓	GW	40	↓	1340	9	X	X	X	X	X	X
W-MW-01-061917	↓	GW	75	↓	1620	9	X	X	X	X	X	X
R-MW6-062017	↓	GW	20	6/20/17	0910	11	X	X	X	X	X	X
MW121-062017	↓	GW	20	↓	1145	9	X	X	X	X	X	X
TRIP BLANK	-	GW	-	4/11/17	-	-	X	X	X	X	X	X
		GW										
		GW										
		GW										
		GW										

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NO3 nitrate has a 48 hour holding time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking #

Sample Receipt Checklist
 CDC Seal Present/Intact: NP Y N
 CDC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/20/17	Time: 1710	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No HCL/MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 21.0 Bottles Received: 38
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 6-21-17 Time: 855

If preservation required by Login: Date/Time

Hold: Condition:
NCF / 08

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-757-5859
Fax: 615-758-5859



L# 917439

F120

Acctnum: **PESENVSWA**

Template: **T124201**

Prelogin: **P603202**

TSR: **110 - Brian Ford**

PB: **5-31-17**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

01

02

03

04

SM

05

MEMORANDUM

TO: Project File **DATE:** July 25, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 19 and 20, 2017- Groundwater Samples
LAB: ESC Lab ID L917439

Four (4) groundwater samples and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 19 and 20, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L917439. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L917439 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.1 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

Samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

Samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

Samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met with the following exception:

Sample W-MW-02-061917 nitrate analysis was performed about 3 hours past the recommended 48-hour hold time. **Sample W-MW-02-061917 nitrate result is estimated and qualified (UJ).**

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for acrylonitrile, bromomethane, chloromethane, 1,2-dibromo-3-chloropropane, dibromomethane, 1,2-dichloroethane, trans-1,4-dichloro-2-butene, di-isopropyl ether, 2-Butanone (MEK), 4-methyl-2-pentanone (MIBK), methyl tert-butyl ether, naphthalene, 1,1,2,2-tetrachloroethane, 1,2,3-trichlorobenzene, and 1,2,3-trichloropropane were identified by the laboratory for all associated samples with analytical batch WG993152 (analyzed on June 27, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All sample results for above mentioned compounds are estimated and qualified (UJ or J).**

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

NWTPH-Gx Method:

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

Method RSK-175:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

USEPA Method 6020:

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level of chloride was detected in the method blank associated with analytical batch WG991373 (date of analysis is June 21, 2017) between the RDL and method detection

limit (MDL). No action was necessary as associated chloride sample results are significantly greater than the detections in the blank.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was collected and submitted for gasoline and VOC analysis. The target analytes (gasoline and VOCs) were not detected in the trip blank at or above the reported detection limits (RDLs).

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDG L918687 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Method RSK-175:

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples and on sample W-MW-01-061917. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: Laboratory duplicate samples were performed on non-client or client samples from a different SDG within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: Laboratory duplicate samples were performed on non-client samples within the analytical batches. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit with the following discussion:

Nitrate and sulfate duplicate RPDs associated with analytical batch WG991373 (date of analysis is June 21, 2017) exceed acceptance criteria but no action is taken since this duplicate was performed on a non-client sample within the analytical batch and the laboratory control sample results are acceptable.

EPA Method 9060A: A laboratory duplicate sample was performed on a non-client sample and on sample R-MW6-062017 within the analytical batch. The primary/duplicate RPD for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the sample, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS (Batch WG993152) spike compound (acrylonitrile) percent recovery is slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken on this basis as LCSD percent recovery results are within.
- LCS/LCSD (Batch WG993152) spike compound (1,2,3-trichloropropane) percent recoveries are also slightly below laboratory acceptance criteria and qualified by the laboratory (J4). **Spike compound, 1,2,3-trichloropropane, was not detected in associated samples and all associated results are estimated (UJ) due to slightly low LCS/LCSD recoveries.**

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

NWTPH-Gx Method:

MS/MSD analysis was performed on sample R-MW6-062017. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample.

Method RSK-175:

MS/MSD analyses were not performed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

USEPA Method 6020:

MS/MSD analysis was performed on non-client sample within the analytical batch. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS/MSD analyses were performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

EPA Method 9060A: MS/MSD analysis was performed on non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 06/19/17 11:10

L917439

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	520000		2710	20000	1	06/27/2017 07:38	WG992368

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	103000		260	5000	5	06/27/2017 20:29	WG993012
Nitrate	U	VS Q	22.7	100	1	06/21/2017 14:15	WG991373
Sulfate	U		77.4	5000	1	06/21/2017 14:15	WG991373

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	116000		1020	10000	10	06/22/2017 19:34	WG991744

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	33700		15.0	100	1	06/23/2017 07:04	WG991760
Manganese	2980		0.250	5.00	1	06/23/2017 07:04	WG991760

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	16900		7.18	17.0	25	06/22/2017 15:09	WG992024
Ethane	U		0.296	1.29	1	06/22/2017 12:16	WG991508
Ethene	3.71		0.422	1.27	1	06/22/2017 12:16	WG991508

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	8.12	J J	1.05	25.0	1	06/27/2017 13:46	WG993152
Acrylonitrile	U	VS JO J4	0.873	5.00	1	06/27/2017 13:46	WG993152
Benzene	0.307	J J	0.0896	0.500	1	06/27/2017 13:46	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 13:46	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 13:46	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 13:46	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 13:46	WG993152
Bromomethane	U	VS JO	0.157	2.50	1	06/27/2017 13:46	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 13:46	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 13:46	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 13:46	WG993152
Carbon disulfide	0.386	J J	0.101	0.500	1	06/27/2017 13:46	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 13:46	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 13:46	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 13:46	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 13:46	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 13:46	WG993152
Chloromethane	U	VS JO	0.153	1.25	1	06/27/2017 13:46	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 13:46	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 13:46	WG993152
1,2-Dibromo-3-Chloropropane	U	VS JO	0.325	2.50	1	06/27/2017 13:46	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 13:46	WG993152
Dibromomethane	U	VS JO	0.117	0.500	1	06/27/2017 13:46	WG993152

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 13:46	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 13:46	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 13:46	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 13:46	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 13:46	WG993152
1,2-Dichloroethane	U	VJ JO	0.108	0.500	1	06/27/2017 13:46	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 13:46	WG993152
cis-1,2-Dichloroethene	18.2		0.0933	0.500	1	06/27/2017 13:46	WG993152
trans-1,2-Dichloroethene	0.746		0.152	0.500	1	06/27/2017 13:46	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 13:46	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 13:46	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 13:46	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 13:46	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 13:46	WG993152
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/27/2017 13:46	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 13:46	WG993152
Di-isopropyl ether	U	VJ JO	0.0924	0.500	1	06/27/2017 13:46	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 13:46	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 13:46	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 13:46	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 13:46	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 13:46	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 13:46	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 13:46	WG993152
2-Butanone (MEK)	3.57	J JJO	1.28	5.00	1	06/27/2017 13:46	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 13:46	WG993152
4-Methyl-2-pentanone (MIBK)	0.929	XJ JJO	0.823	5.00	1	06/27/2017 13:46	WG993152
Methyl tert-butyl ether	U	VJ JO	0.102	0.500	1	06/27/2017 13:46	WG993152
Naphthalene	U	VJ JO	0.174	2.50	1	06/27/2017 13:46	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 13:46	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 13:46	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 13:46	WG993152
1,1,2,2-Tetrachloroethane	U	VJ JO	0.130	0.500	1	06/27/2017 13:46	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 13:46	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 13:46	WG993152
Toluene	0.970		0.412	0.500	1	06/27/2017 13:46	WG993152
1,2,3-Trichlorobenzene	U	VJ JO	0.164	0.500	1	06/27/2017 13:46	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 13:46	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 13:46	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 13:46	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 13:46	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 13:46	WG993152
1,2,3-Trichloropropane	U	VJ JO J4	0.247	2.50	1	06/27/2017 13:46	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 13:46	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 13:46	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 13:46	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 13:46	WG993152
Vinyl chloride	25.6		0.118	0.500	1	06/27/2017 13:46	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 13:46	WG993152
(S) Toluene-d8	111			80.0-120		06/27/2017 13:46	WG993152
(S) Dibromofluoromethane	99.7			76.0-123		06/27/2017 13:46	WG993152
(S) 4-Bromofluorobenzene	97.8			80.0-120		06/27/2017 13:46	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 0 Al
- 9 Sc

Jc
7/25/17



Collected date/time: 06/19/17 13:40

L917439

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	651000		2710	20000	1	06/27/2017 07:45	WG992368

¹ Cp

² Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	89700		51.9	1000	1	06/21/2017 13:31	WG991373
Nitrate	U		22.7	100	1	06/21/2017 13:31	WG991373
Sulfate	U		77.4	5000	1	06/21/2017 13:31	WG991373

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	91000		102	1000	1	06/22/2017 19:51	WG991744

⁶ Qc

⁷ Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	10500		15.0	100	1	06/23/2017 07:07	WG991760
Manganese	955		0.250	5.00	1	06/23/2017 07:07	WG991760

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	7350		5.74	13.6	20	06/22/2017 15:12	WG992024
Ethane	U		0.296	1.29	1	06/22/2017 12:18	WG991508
Ethene	205		0.422	1.27	1	06/22/2017 12:18	WG991508

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	2.99	J ↓	1.05	25.0	1	06/27/2017 14:03	WG993152
Acrylonitrile	U	JS JO J4	0.873	5.00	1	06/27/2017 14:03	WG993152
Benzene	0.238	J ↓	0.0896	0.500	1	06/27/2017 14:03	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:03	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:03	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:03	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:03	WG993152
Bromomethane	U	JS JO	0.157	2.50	1	06/27/2017 14:03	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:03	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:03	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:03	WG993152
Carbon disulfide	0.162	J ↓	0.101	0.500	1	06/27/2017 14:03	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:03	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:03	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:03	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:03	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 14:03	WG993152
Chloromethane	U	JS JO	0.153	1.25	1	06/27/2017 14:03	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:03	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:03	WG993152
1,2-Dibromo-3-Chloropropane	U	JS JO	0.325	2.50	1	06/27/2017 14:03	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:03	WG993152
Dibromomethane	U	JS JO	0.117	0.500	1	06/27/2017 14:03	WG993152

*JS
7/25/17*

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:03	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:03	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:03	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:03	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 14:03	WG993152
1,2-Dichloroethane	U	VJ JO	0.108	0.500	1	06/27/2017 14:03	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 14:03	WG993152
cis-1,2-Dichloroethene	7.29		0.0933	0.500	1	06/27/2017 14:03	WG993152
trans-1,2-Dichloroethene	12.6		0.152	0.500	1	06/27/2017 14:03	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:03	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:03	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:03	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:03	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:03	WG993152
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/27/2017 14:03	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:03	WG993152
Di-isopropyl ether	U	VJ JO	0.0924	0.500	1	06/27/2017 14:03	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:03	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:03	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:03	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:03	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:03	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:03	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:03	WG993152
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	06/27/2017 14:03	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:03	WG993152
4-Methyl-2-pentanone (MIBK)	U	VJ JO	0.823	5.00	1	06/27/2017 14:03	WG993152
Methyl tert-butyl ether	U	VJ JO	0.102	0.500	1	06/27/2017 14:03	WG993152
Naphthalene	U	VJ JO	0.174	2.50	1	06/27/2017 14:03	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:03	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:03	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:03	WG993152
1,1,2,2-Tetrachloroethane	U	VJ JO	0.130	0.500	1	06/27/2017 14:03	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:03	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 14:03	WG993152
Toluene	0.700		0.412	0.500	1	06/27/2017 14:03	WG993152
1,2,3-Trichlorobenzene	U	VJ JO	0.164	0.500	1	06/27/2017 14:03	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:03	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:03	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:03	WG993152
Trichloroethene	0.290	J J	0.153	0.500	1	06/27/2017 14:03	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:03	WG993152
1,2,3-Trichloropropane	U	VJ JO J4	0.247	2.50	1	06/27/2017 14:03	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:03	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:03	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:03	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 14:03	WG993152
Vinyl chloride	15.0		0.118	0.500	1	06/27/2017 14:03	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:03	WG993152
(S) Toluene-d8	111			80.0-120		06/27/2017 14:03	WG993152
(S) Dibromofluoromethane	99.6			76.0-123		06/27/2017 14:03	WG993152
(S) 4-Bromofluorobenzene	98.1			80.0-120		06/27/2017 14:03	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 5 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Collected date/time: 06/19/17 16:20

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Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	250000		2710	20000	1	06/27/2017 07:51	WG992368

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	27600		51.9	1000	1	06/21/2017 14:00	WG991373
Nitrate	72.7	J ↓	22.7	100	1	06/21/2017 14:00	WG991373
Sulfate	28300		77.4	5000	1	06/21/2017 14:00	WG991373

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3000		102	1000	1	06/22/2017 20:04	WG991744

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	9480		15.0	100	1	06/23/2017 07:11	WG991760
Manganese	321		0.250	5.00	1	06/23/2017 07:11	WG991760

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	461		0.287	0.678	1	06/22/2017 12:20	WG991508
Ethane	U		0.296	1.29	1	06/22/2017 12:20	WG991508
Ethene	U		0.422	1.27	1	06/22/2017 12:20	WG991508

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/27/2017 14:20	WG993152
Acrylonitrile	U	VJ JO J4	0.873	5.00	1	06/27/2017 14:20	WG993152
Benzene	0.158	J ↓	0.0896	0.500	1	06/27/2017 14:20	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:20	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:20	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:20	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:20	WG993152
Bromomethane	U	VJ JO	0.157	2.50	1	06/27/2017 14:20	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:20	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:20	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:20	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 14:20	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:20	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:20	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:20	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:20	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 14:20	WG993152
Chloromethane	U	VJ JO	0.153	1.25	1	06/27/2017 14:20	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:20	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:20	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 14:20	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:20	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 14:20	WG993152

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:20	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:20	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:20	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:20	WG993152
1,1-Dichloroethane	U	US JO	0.114	0.500	1	06/27/2017 14:20	WG993152
1,2-Dichloroethane	U	US JO	0.108	0.500	1	06/27/2017 14:20	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 14:20	WG993152
cis-1,2-Dichloroethene	0.320	J J	0.0933	0.500	1	06/27/2017 14:20	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 14:20	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:20	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:20	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:20	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:20	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:20	WG993152
trans-1,4-Dichloro-2-butene	U	US JO	0.257	5.00	1	06/27/2017 14:20	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:20	WG993152
Di-isopropyl ether	U	US JO	0.0924	0.500	1	06/27/2017 14:20	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:20	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:20	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:20	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:20	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:20	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:20	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:20	WG993152
2-Butanone (MEK)	U	US JO	1.28	5.00	1	06/27/2017 14:20	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:20	WG993152
4-Methyl-2-pentanone (MIBK)	U	US JO	0.823	5.00	1	06/27/2017 14:20	WG993152
Methyl tert-butyl ether	U	J JO	0.102	0.500	1	06/27/2017 14:20	WG993152
Naphthalene	U	J JO	0.174	2.50	1	06/27/2017 14:20	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:20	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:20	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:20	WG993152
1,1,2,2-Tetrachloroethane	U	US JO	0.130	0.500	1	06/27/2017 14:20	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:20	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 14:20	WG993152
Toluene	0.931		0.412	0.500	1	06/27/2017 14:20	WG993152
1,2,3-Trichlorobenzene	U	US JO	0.164	0.500	1	06/27/2017 14:20	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:20	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:20	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:20	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 14:20	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:20	WG993152
1,2,3-Trichloropropane	U	US JO J4	0.247	2.50	1	06/27/2017 14:20	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:20	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:20	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:20	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 14:20	WG993152
Vinyl chloride	1.09		0.118	0.500	1	06/27/2017 14:20	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:20	WG993152
(S) Toluene-d8	112			80.0-120		06/27/2017 14:20	WG993152
(S) Dibromofluoromethane	99.8			76.0-123		06/27/2017 14:20	WG993152
(S) 4-Bromofluorobenzene	99.0			80.0-120		06/27/2017 14:20	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

Sr

6 Qc

7 Gl

8 Al

9 Sc

pc
7/25/17



Collected date/time: 06/20/17 09:10

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Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	718000		2710	20000	1	06/27/2017 07:58	WG992368

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	11100		51.9	1000	1	06/21/2017 21:13	WG991373
Nitrate	U		22.7	100	1	06/21/2017 21:13	WG991373
Sulfate	85700		77.4	5000	1	06/21/2017 21:13	WG991373

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	13600		102	1000	1	06/22/2017 21:31	WG991744

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	27000		15.0	100	1	06/23/2017 08:09	WG991760
Manganese	8280		0.250	5.00	1	06/23/2017 08:09	WG991760

Al

Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	38.5	J	31.6	100	1	06/22/2017 06:44	WG991730
(S) a,a,a-Trifluorotoluene(FID) 99.1				77.0-122		06/22/2017 06:44	WG991730

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	6980		2.87	6.78	10	06/22/2017 15:14	WG992024
Ethane	10.7		0.296	1.29	1	06/22/2017 12:22	WG991508
Ethene	11.2		0.422	1.27	1	06/22/2017 12:22	WG991508

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	U		1.05	25.0	1	06/27/2017 14:37	WG993152
Acrylonitrile	U	VS JO J4	0.873	5.00	1	06/27/2017 14:37	WG993152
Benzene	0.167	J	0.0896	0.500	1	06/27/2017 14:37	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:37	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:37	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:37	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:37	WG993152
Bromomethane	U	VS JO	0.157	2.50	1	06/27/2017 14:37	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:37	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:37	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:37	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 14:37	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:37	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:37	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:37	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:37	WG993152

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloroform	U		0.0860	0.500	1	06/27/2017 14:37	WG993152
Chloromethane	U	VJ JO	0.153	1.25	1	06/27/2017 14:37	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:37	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:37	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 14:37	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:37	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 14:37	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:37	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:37	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:37	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:37	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 14:37	WG993152
1,2-Dichloroethane	U	VJ JO	0.108	0.500	1	06/27/2017 14:37	WG993152
1,1-Dichloroethene	0.337	J J	0.188	0.500	1	06/27/2017 14:37	WG993152
cis-1,2-Dichloroethene	37.3		0.0933	0.500	1	06/27/2017 14:37	WG993152
trans-1,2-Dichloroethene	0.445	J J	0.152	0.500	1	06/27/2017 14:37	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:37	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:37	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:37	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:37	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:37	WG993152
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/27/2017 14:37	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:37	WG993152
Di-isopropyl ether	U	VJ JO	0.0924	0.500	1	06/27/2017 14:37	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:37	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:37	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:37	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:37	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:37	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:37	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:37	WG993152
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	06/27/2017 14:37	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:37	WG993152
4-Methyl-2-pentanone (MIBK)	U	VJ JO	0.823	5.00	1	06/27/2017 14:37	WG993152
Methyl tert-butyl ether	U	J JO	0.102	0.500	1	06/27/2017 14:37	WG993152
Naphthalene	U	J JO	0.174	2.50	1	06/27/2017 14:37	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:37	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:37	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:37	WG993152
1,1,2,2-Tetrachloroethane	U	VJ JO	0.130	0.500	1	06/27/2017 14:37	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:37	WG993152
Tetrachloroethene	1.19		0.199	0.500	1	06/27/2017 14:37	WG993152
Toluene	0.619		0.412	0.500	1	06/27/2017 14:37	WG993152
1,2,3-Trichlorobenzene	U	VJ JO	0.164	0.500	1	06/27/2017 14:37	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:37	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:37	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:37	WG993152
Trichloroethene	0.878		0.153	0.500	1	06/27/2017 14:37	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:37	WG993152
1,2,3-Trichloropropane	U	VJ JO J4	0.247	2.50	1	06/27/2017 14:37	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:37	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:37	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:37	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 14:37	WG993152
Vinyl chloride	43.9		0.118	0.500	1	06/27/2017 14:37	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:37	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 7/25/17



Collected date/time: 06/20/17 09:10

L917439

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
(S) Toluene-d8	112			80.0-120		06/27/2017 14:37	WG993152
(S) Dibromofluoromethane	99.6			76.0-123		06/27/2017 14:37	WG993152
(S) 4-Bromofluorobenzene	99.2			80.0-120		06/27/2017 14:37	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

Sr

5 Qc

7 Gl

Al

Sc

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Collected date/time: 06/20/17 00:00

SAMPLE RESULTS - 05

L917439

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 01:33	WG991730
(S) a,a,a-Trifluorotoluene(FID) 99.0				77.0-122		06/22/2017 01:33	WG991730

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/27/2017 12:54	WG993152
Acrylonitrile	U	VJ JO J4	0.873	5.00	1	06/27/2017 12:54	WG993152
Benzene	U		0.0896	0.500	1	06/27/2017 12:54	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 12:54	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 12:54	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 12:54	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 12:54	WG993152
Bromomethane	U	VJ JO	0.157	2.50	1	06/27/2017 12:54	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 12:54	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 12:54	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 12:54	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 12:54	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 12:54	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 12:54	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 12:54	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 12:54	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 12:54	WG993152
Chloromethane	U	VJ JO	0.153	1.25	1	06/27/2017 12:54	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 12:54	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 12:54	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 12:54	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 12:54	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 12:54	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 12:54	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 12:54	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 12:54	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 12:54	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 12:54	WG993152
1,2-Dichloroethane	U	VJ JO	0.108	0.500	1	06/27/2017 12:54	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 12:54	WG993152
cis-1,2-Dichloroethene	U		0.0933	0.500	1	06/27/2017 12:54	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 12:54	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 12:54	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 12:54	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 12:54	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 12:54	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 12:54	WG993152
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/27/2017 12:54	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 12:54	WG993152
Di-isopropyl ether	U	VJ JO	0.0924	0.500	1	06/27/2017 12:54	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 12:54	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 12:54	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 12:54	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 12:54	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 12:54	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 12:54	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 12:54	WG993152
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	06/27/2017 12:54	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 12:54	WG993152

Cp

Tc

Ss

Cn

Sr

Qc

GI

AI

Sc

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SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.



Collected date/time: 06/20/17 00:00

L917439

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
4-Methyl-2-pentanone (MIBK)	U	VJ JO	0.823	5.00	1	06/27/2017 12:54	WG993152
Methyl tert-butyl ether	U	JO	0.102	0.500	1	06/27/2017 12:54	WG993152
Naphthalene	U	JO	0.174	2.50	1	06/27/2017 12:54	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 12:54	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 12:54	WG993152
1,1,1-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 12:54	WG993152
1,1,2,2-Tetrachloroethane	U	VJ JO	0.130	0.500	1	06/27/2017 12:54	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 12:54	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 12:54	WG993152
Toluene	U		0.412	0.500	1	06/27/2017 12:54	WG993152
1,2,3-Trichlorobenzene	U	VJ JO	0.164	0.500	1	06/27/2017 12:54	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 12:54	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 12:54	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 12:54	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 12:54	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 12:54	WG993152
1,2,3-Trichloropropane	U	VJ JO J4	0.247	2.50	1	06/27/2017 12:54	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 12:54	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 12:54	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 12:54	WG993152
Vinyl acetate	U		0.645	5.00	1	06/27/2017 12:54	WG993152
Vinyl chloride	U		0.118	0.500	1	06/27/2017 12:54	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 12:54	WG993152
(S) Toluene-d8	114			80.0-120		06/27/2017 12:54	WG993152
(S) Dibromofluoromethane	97.6			76.0-123		06/27/2017 12:54	WG993152
(S) 4-Bromofluorobenzene	97.1			80.0-120		06/27/2017 12:54	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

Sr

5 Qc

7 Gl

8 Al

9 Sc

Handwritten signature and date: Jc 7/25/17

PES Environmental, Inc.- WA

Sample Delivery Group: L917461
Samples Received: 06/21/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



MW121-062017 L917461-01 GW

Collected by
Shannon McKernan

Collected date/time
06/20/17 11:45

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG992368	1	06/27/17 08:53	06/27/17 08:53	MCG
Wet Chemistry by Method 9056A	WG991594	1	06/21/17 22:15	06/21/17 22:15	DR
Wet Chemistry by Method 9056A	WG993019	100	06/28/17 19:56	06/28/17 19:56	SAM
Wet Chemistry by Method 9060A	WG992075	1	06/23/17 12:32	06/23/17 12:32	SJM
Metals (ICPMS) by Method 6020A	WG991760	1	06/22/17 14:01	06/23/17 08:12	LAT
Metals (ICPMS) by Method 6020A	WG991760	2	06/22/17 14:01	06/23/17 10:41	LAT
Volatile Organic Compounds (GC) by Method RSK175	WG991514	1	06/22/17 14:17	06/22/17 14:17	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG992024	5	06/22/17 15:22	06/22/17 15:22	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 14:54	06/27/17 14:54	ACG

1
Cp

2
Tc

3
Ss

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Cn

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Sr

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Qc

7
Gl

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Al

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Sc

MW-D-062017 L917461-02 GW

Collected by
Shannon McKernan

Collected date/time
06/20/17 12:55

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG991811	1	06/22/17 18:33	06/22/17 18:33	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 15:11	06/27/17 15:11	ACG

MW-9-062017 L917461-03 GW

Collected by
Shannon McKernan

Collected date/time
06/20/17 13:45

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG991811	1	06/22/17 18:55	06/22/17 18:55	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 15:28	06/27/17 15:28	ACG

MW131-062017 L917461-04 GW

Collected by
Shannon McKernan

Collected date/time
06/20/17 15:50

Received date/time
06/21/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG992368	1	06/27/17 09:00	06/27/17 09:00	MCG
Wet Chemistry by Method 9056A	WG991594	1	06/21/17 22:25	06/21/17 22:25	DR
Wet Chemistry by Method 9056A	WG991594	5	06/21/17 22:35	06/21/17 22:35	DR
Wet Chemistry by Method 9060A	WG992075	1	06/23/17 13:02	06/23/17 13:02	SJM
Metals (ICPMS) by Method 6020A	WG991760	1	06/22/17 14:01	06/23/17 08:16	LAT
Volatile Organic Compounds (GC) by Method NWTPHGX	WG991811	1	06/22/17 19:17	06/22/17 19:17	LRL
Volatile Organic Compounds (GC) by Method RSK175	WG991514	1	06/22/17 14:19	06/22/17 14:19	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG992024	20	06/22/17 15:29	06/22/17 15:29	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	5	06/29/17 01:29	06/29/17 01:29	JHH



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	930000		2710	20000	1	06/27/2017 08:53	WG992368

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	13300		51.9	1000	1	06/21/2017 22:15	WG991594
Nitrate	U		22.7	100	1	06/21/2017 22:15	WG991594
Sulfate	61200	J	7740	500000	100	06/28/2017 19:56	WG993019

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	16500		102	1000	1	06/23/2017 12:32	WG992075

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	27100		15.0	100	1	06/23/2017 08:12	WG991760
Manganese	11000		0.500	10.0	2	06/23/2017 10:41	WG991760

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2140		1.44	3.39	5	06/22/2017 15:22	WG992024
Ethane	8.88		0.296	1.29	1	06/22/2017 14:17	WG991514
Ethene	U		0.422	1.27	1	06/22/2017 14:17	WG991514

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/27/2017 14:54	WG993152
Acrylonitrile	U	JO J4	0.873	5.00	1	06/27/2017 14:54	WG993152
Benzene	0.186	J	0.0896	0.500	1	06/27/2017 14:54	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:54	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:54	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:54	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:54	WG993152
Bromomethane	U	JO	0.157	2.50	1	06/27/2017 14:54	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:54	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:54	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:54	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 14:54	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:54	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:54	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:54	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:54	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 14:54	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 14:54	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:54	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:54	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/27/2017 14:54	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:54	WG993152
Dibromomethane	U	JO	0.117	0.500	1	06/27/2017 14:54	WG993152



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:54	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:54	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:54	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:54	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 14:54	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 14:54	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 14:54	WG993152
cis-1,2-Dichloroethene	1.13		0.0933	0.500	1	06/27/2017 14:54	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 14:54	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:54	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:54	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:54	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:54	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:54	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 14:54	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:54	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 14:54	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:54	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:54	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:54	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:54	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:54	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:54	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:54	WG993152
2-Butanone (MEK)	U	JO	1.28	5.00	1	06/27/2017 14:54	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:54	WG993152
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 14:54	WG993152
Methyl tert-butyl ether	U	JO	0.102	0.500	1	06/27/2017 14:54	WG993152
Naphthalene	U	JO	0.174	2.50	1	06/27/2017 14:54	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:54	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:54	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:54	WG993152
1,1,2,2-Tetrachloroethane	U	JO	0.130	0.500	1	06/27/2017 14:54	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:54	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 14:54	WG993152
Toluene	0.774		0.412	0.500	1	06/27/2017 14:54	WG993152
1,2,3-Trichlorobenzene	U	JO	0.164	0.500	1	06/27/2017 14:54	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:54	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:54	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:54	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 14:54	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:54	WG993152
1,2,3-Trichloropropane	U	JO J4	0.247	2.50	1	06/27/2017 14:54	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:54	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:54	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:54	WG993152
Vinyl acetate	U	JO	0.645	5.00	1	06/27/2017 14:54	WG993152
Vinyl chloride	7.68		0.118	0.500	1	06/27/2017 14:54	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:54	WG993152
(S) Toluene-d8	109			80.0-120		06/27/2017 14:54	WG993152
(S) Dibromofluoromethane	102			76.0-123		06/27/2017 14:54	WG993152
(S) 4-Bromofluorobenzene	99.5			80.0-120		06/27/2017 14:54	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 18:33	WG991811
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-122		06/22/2017 18:33	WG991811

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/27/2017 15:11	WG993152
Acrylonitrile	U	JO J4	0.873	5.00	1	06/27/2017 15:11	WG993152
Benzene	U		0.0896	0.500	1	06/27/2017 15:11	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 15:11	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 15:11	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 15:11	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 15:11	WG993152
Bromomethane	U	JO	0.157	2.50	1	06/27/2017 15:11	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 15:11	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 15:11	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 15:11	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 15:11	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 15:11	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 15:11	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 15:11	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 15:11	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 15:11	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 15:11	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 15:11	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 15:11	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/27/2017 15:11	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 15:11	WG993152
Dibromomethane	U	JO	0.117	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 15:11	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 15:11	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 15:11	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 15:11	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 15:11	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 15:11	WG993152
cis-1,2-Dichloroethene	0.211	J	0.0933	0.500	1	06/27/2017 15:11	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 15:11	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 15:11	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 15:11	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 15:11	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 15:11	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 15:11	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 15:11	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 15:11	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 15:11	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 15:11	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 15:11	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 15:11	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 15:11	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 15:11	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 15:11	WG993152
2-Butanone (MEK)	U	JO	1.28	5.00	1	06/27/2017 15:11	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 15:11	WG993152



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 15:11	WG993152
Methyl tert-butyl ether	U	<u>JO</u>	0.102	0.500	1	06/27/2017 15:11	WG993152
Naphthalene	U	<u>JO</u>	0.174	2.50	1	06/27/2017 15:11	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 15:11	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 15:11	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 15:11	WG993152
1,1,2,2-Tetrachloroethane	U	<u>JO</u>	0.130	0.500	1	06/27/2017 15:11	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 15:11	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 15:11	WG993152
Toluene	0.548		0.412	0.500	1	06/27/2017 15:11	WG993152
1,2,3-Trichlorobenzene	U	<u>JO</u>	0.164	0.500	1	06/27/2017 15:11	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 15:11	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 15:11	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 15:11	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 15:11	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 15:11	WG993152
1,2,3-Trichloropropane	U	<u>JO J4</u>	0.247	2.50	1	06/27/2017 15:11	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 15:11	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 15:11	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 15:11	WG993152
Vinyl acetate	U	<u>JO</u>	0.645	5.00	1	06/27/2017 15:11	WG993152
Vinyl chloride	U		0.118	0.500	1	06/27/2017 15:11	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 15:11	WG993152
(S) Toluene-d8	110			80.0-120		06/27/2017 15:11	WG993152
(S) Dibromofluoromethane	101			76.0-123		06/27/2017 15:11	WG993152
(S) 4-Bromofluorobenzene	99.0			80.0-120		06/27/2017 15:11	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 18:55	WG991811
(S) a,a,a-Trifluorotoluene(FID)	91.9			77.0-122		06/22/2017 18:55	WG991811

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	06/27/2017 15:28	WG993152
Acrylonitrile	U	JO J4	0.873	5.00	1	06/27/2017 15:28	WG993152
Benzene	U		0.0896	0.500	1	06/27/2017 15:28	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 15:28	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 15:28	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 15:28	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 15:28	WG993152
Bromomethane	U	JO	0.157	2.50	1	06/27/2017 15:28	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 15:28	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 15:28	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 15:28	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 15:28	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 15:28	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 15:28	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 15:28	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 15:28	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 15:28	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 15:28	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 15:28	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 15:28	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	0.325	2.50	1	06/27/2017 15:28	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 15:28	WG993152
Dibromomethane	U	JO	0.117	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 15:28	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 15:28	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 15:28	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 15:28	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 15:28	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 15:28	WG993152
cis-1,2-Dichloroethene	0.214	J	0.0933	0.500	1	06/27/2017 15:28	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 15:28	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 15:28	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 15:28	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 15:28	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 15:28	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 15:28	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 15:28	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 15:28	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 15:28	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 15:28	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 15:28	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 15:28	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 15:28	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 15:28	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 15:28	WG993152
2-Butanone (MEK)	U	JO	1.28	5.00	1	06/27/2017 15:28	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 15:28	WG993152



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 15:28	WG993152
Methyl tert-butyl ether	U	JO	0.102	0.500	1	06/27/2017 15:28	WG993152
Naphthalene	U	JO	0.174	2.50	1	06/27/2017 15:28	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 15:28	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 15:28	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 15:28	WG993152
1,1,2,2-Tetrachloroethane	U	JO	0.130	0.500	1	06/27/2017 15:28	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 15:28	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 15:28	WG993152
Toluene	0.562		0.412	0.500	1	06/27/2017 15:28	WG993152
1,2,3-Trichlorobenzene	U	JO	0.164	0.500	1	06/27/2017 15:28	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 15:28	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 15:28	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 15:28	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 15:28	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 15:28	WG993152
1,2,3-Trichloropropane	U	JO J4	0.247	2.50	1	06/27/2017 15:28	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 15:28	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 15:28	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 15:28	WG993152
Vinyl acetate	U	JO	0.645	5.00	1	06/27/2017 15:28	WG993152
Vinyl chloride	U		0.118	0.500	1	06/27/2017 15:28	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 15:28	WG993152
(S) Toluene-d8	112			80.0-120		06/27/2017 15:28	WG993152
(S) Dibromofluoromethane	102			76.0-123		06/27/2017 15:28	WG993152
(S) 4-Bromofluorobenzene	100			80.0-120		06/27/2017 15:28	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	1050000		2710	20000	1	06/27/2017 09:00	WG992368

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	122000		260	5000	5	06/21/2017 22:35	WG991594
Nitrate	U		22.7	100	1	06/21/2017 22:25	WG991594
Sulfate	724	J	77.4	5000	1	06/21/2017 22:25	WG991594

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10800		102	1000	1	06/23/2017 13:02	WG992075

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	7420		15.0	100	1	06/23/2017 08:16	WG991760
Manganese	1010		0.250	5.00	1	06/23/2017 08:16	WG991760

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 19:17	WG991811
(S) a,a,a-Trifluorotoluene(FID) 92.7				77.0-122		06/22/2017 19:17	WG991811

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	10700		5.74	13.6	20	06/22/2017 15:29	WG992024
Ethane	U		0.296	1.29	1	06/22/2017 14:19	WG991514
Ethene	332		0.422	1.27	1	06/22/2017 14:19	WG991514

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		5.25	125	5	06/29/2017 01:29	WG993152
Acrylonitrile	U	JO J4	4.36	25.0	5	06/29/2017 01:29	WG993152
Benzene	U		0.448	2.50	5	06/29/2017 01:29	WG993152
Bromobenzene	U		0.665	2.50	5	06/29/2017 01:29	WG993152
Bromodichloromethane	U		0.400	2.50	5	06/29/2017 01:29	WG993152
Bromochloromethane	U		0.725	2.50	5	06/29/2017 01:29	WG993152
Bromoform	U		0.930	2.50	5	06/29/2017 01:29	WG993152
Bromomethane	U	JO	0.785	12.5	5	06/29/2017 01:29	WG993152
n-Butylbenzene	U		0.715	2.50	5	06/29/2017 01:29	WG993152
sec-Butylbenzene	U		0.670	2.50	5	06/29/2017 01:29	WG993152
tert-Butylbenzene	U		0.915	2.50	5	06/29/2017 01:29	WG993152
Carbon disulfide	U		0.505	2.50	5	06/29/2017 01:29	WG993152
Carbon tetrachloride	U		0.795	2.50	5	06/29/2017 01:29	WG993152
Chlorobenzene	U		0.700	2.50	5	06/29/2017 01:29	WG993152
Chlorodibromomethane	U		0.640	2.50	5	06/29/2017 01:29	WG993152
Chloroethane	U		0.705	12.5	5	06/29/2017 01:29	WG993152



Collected date/time: 06/20/17 15:50

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloroform	U		0.430	2.50	5	06/29/2017 01:29	WG993152
Chloromethane	U		0.765	6.25	5	06/29/2017 01:29	WG993152
2-Chlorotoluene	U		0.555	2.50	5	06/29/2017 01:29	WG993152
4-Chlorotoluene	U		0.486	2.50	5	06/29/2017 01:29	WG993152
1,2-Dibromo-3-Chloropropane	U	JO	1.62	12.5	5	06/29/2017 01:29	WG993152
1,2-Dibromoethane	U		0.965	2.50	5	06/29/2017 01:29	WG993152
Dibromomethane	U	JO	0.585	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichlorobenzene	U		0.505	2.50	5	06/29/2017 01:29	WG993152
1,3-Dichlorobenzene	U		0.650	2.50	5	06/29/2017 01:29	WG993152
1,4-Dichlorobenzene	U		0.605	2.50	5	06/29/2017 01:29	WG993152
Dichlorodifluoromethane	U		0.635	12.5	5	06/29/2017 01:29	WG993152
1,1-Dichloroethane	U		0.570	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichloroethane	U	JO	0.540	2.50	5	06/29/2017 01:29	WG993152
1,1-Dichloroethene	U		0.940	2.50	5	06/29/2017 01:29	WG993152
cis-1,2-Dichloroethene	2.55		0.466	2.50	5	06/29/2017 01:29	WG993152
trans-1,2-Dichloroethene	U		0.760	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichloropropane	U		0.950	2.50	5	06/29/2017 01:29	WG993152
1,1-Dichloropropene	U		0.640	2.50	5	06/29/2017 01:29	WG993152
1,3-Dichloropropane	U		0.735	5.00	5	06/29/2017 01:29	WG993152
cis-1,3-Dichloropropene	U		0.488	2.50	5	06/29/2017 01:29	WG993152
trans-1,3-Dichloropropene	U		1.11	2.50	5	06/29/2017 01:29	WG993152
trans-1,4-Dichloro-2-butene	U	JO	1.28	25.0	5	06/29/2017 01:29	WG993152
2,2-Dichloropropane	U		0.464	2.50	5	06/29/2017 01:29	WG993152
Di-isopropyl ether	U	JO	0.462	2.50	5	06/29/2017 01:29	WG993152
Ethylbenzene	U		0.790	2.50	5	06/29/2017 01:29	WG993152
Hexachloro-1,3-butadiene	U		0.785	5.00	5	06/29/2017 01:29	WG993152
2-Hexanone	U		3.78	25.0	5	06/29/2017 01:29	WG993152
n-Hexane	U		1.52	25.0	5	06/29/2017 01:29	WG993152
Iodomethane	U		1.88	50.0	5	06/29/2017 01:29	WG993152
Isopropylbenzene	U		0.630	2.50	5	06/29/2017 01:29	WG993152
p-Isopropyltoluene	U		0.690	2.50	5	06/29/2017 01:29	WG993152
2-Butanone (MEK)	U	JO	6.40	25.0	5	06/29/2017 01:29	WG993152
Methylene Chloride	U		5.35	12.5	5	06/29/2017 01:29	WG993152
4-Methyl-2-pentanone (MIBK)	U		4.12	25.0	5	06/29/2017 01:29	WG993152
Methyl tert-butyl ether	U	JO	0.510	2.50	5	06/29/2017 01:29	WG993152
Naphthalene	U	JO	0.870	12.5	5	06/29/2017 01:29	WG993152
n-Propylbenzene	U		0.810	2.50	5	06/29/2017 01:29	WG993152
Styrene	U		0.585	2.50	5	06/29/2017 01:29	WG993152
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	06/29/2017 01:29	WG993152
1,1,2,2-Tetrachloroethane	U	JO	0.650	2.50	5	06/29/2017 01:29	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	06/29/2017 01:29	WG993152
Tetrachloroethene	U		0.995	2.50	5	06/29/2017 01:29	WG993152
Toluene	U		2.06	2.50	5	06/29/2017 01:29	WG993152
1,2,3-Trichlorobenzene	U	JO	0.820	2.50	5	06/29/2017 01:29	WG993152
1,2,4-Trichlorobenzene	U		1.78	2.50	5	06/29/2017 01:29	WG993152
1,1,1-Trichloroethane	U		0.470	2.50	5	06/29/2017 01:29	WG993152
1,1,2-Trichloroethane	U		0.930	2.50	5	06/29/2017 01:29	WG993152
Trichloroethene	U		0.765	2.50	5	06/29/2017 01:29	WG993152
Trichlorofluoromethane	U		0.650	12.5	5	06/29/2017 01:29	WG993152
1,2,3-Trichloropropane	U	JO J4	1.24	12.5	5	06/29/2017 01:29	WG993152
1,2,4-Trimethylbenzene	U		0.615	2.50	5	06/29/2017 01:29	WG993152
1,2,3-Trimethylbenzene	U		0.370	2.50	5	06/29/2017 01:29	WG993152
1,3,5-Trimethylbenzene	U		0.620	2.50	5	06/29/2017 01:29	WG993152
Vinyl acetate	U	JO	3.22	25.0	5	06/29/2017 01:29	WG993152
Vinyl chloride	435		0.590	2.50	5	06/29/2017 01:29	WG993152
Xylenes, Total	U		1.58	7.50	5	06/29/2017 01:29	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	111			80.0-120		06/29/2017 01:29	WG993152
(S) Dibromofluoromethane	104			76.0-123		06/29/2017 01:29	WG993152
(S) 4-Bromofluorobenzene	101			80.0-120		06/29/2017 01:29	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3228961-1 06/26/17 19:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	5320	J	2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L917181-09 Original Sample (OS) • Duplicate (DUP)

(OS) L917181-09 06/26/17 19:37 • (DUP) R3228961-3 06/26/17 19:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	274000	276000	1	1.00		20

L917461-04 Original Sample (OS) • Duplicate (DUP)

(OS) L917461-04 06/27/17 09:00 • (DUP) R3228961-8 06/27/17 09:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	1050000	1050000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228961-4 06/26/17 20:29 • (LCSD) R3228961-7 06/27/17 07:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	110000	106000	110	106	85.0-115			4.00	20



Method Blank (MB)

(MB) R3227775-1 06/21/17 16:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

L917451-03 Original Sample (OS) • Duplicate (DUP)

(OS) L917451-03 06/21/17 18:52 • (DUP) R3227775-4 06/21/17 19:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	49300	49800	1	1		15
Nitrate	ND	0.000	1	0		15
Sulfate	28800	28900	1	0		15

⁵ Sr

⁶ Qc

⁷ Gl

L917451-07 Original Sample (OS) • Duplicate (DUP)

(OS) L917451-07 06/21/17 20:23 • (DUP) R3227775-6 06/21/17 20:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	17200	16600	1	4		15
Nitrate	ND	0.000	1	0		15

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227775-2 06/21/17 16:55 • (LCSD) R3227775-3 06/21/17 17:05

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	38800	38900	97	97	80-120			0	15
Nitrate	8000	8000	8000	100	100	80-120			0	15
Sulfate	40000	39200	39200	98	98	80-120			0	15

L917451-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L917451-05 06/21/17 19:53 • (MS) R3227775-5 06/21/17 20:03

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	10100	58500	97	1	80-120	
Nitrate	5000	116	4880	95	1	80-120	



L917456-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917456-01 06/21/17 21:45 • (MS) R3227775-7 06/21/17 21:55 • (MSD) R3227775-8 06/21/17 22:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	3210	51300	51600	96	97	1	80-120			1	15
Nitrate	5000	ND	4830	4870	95	96	1	80-120			1	15
Sulfate	50000	44100	91200	91500	94	95	1	80-120			0	15

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3229722-1 06/28/17 00:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L917515-02 Original Sample (OS) • Duplicate (DUP)

(OS) L917515-02 06/28/17 12:14 • (DUP) R3229722-6 06/28/17 12:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	2510	2380	1	5	J	15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229722-2 06/28/17 00:17 • (LCSD) R3229722-3 06/28/17 00:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	40300	40400	101	101	80-120			0	15

⁷ Gl

⁸ Al

L917506-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L917506-02 06/28/17 11:44 • (MS) R3229722-5 06/28/17 11:54

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	17300	72600	110	1	80-120	

⁹ Sc

L917515-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917515-14 06/28/17 18:56 • (MS) R3229722-7 06/28/17 19:06 • (MSD) R3229722-8 06/28/17 19:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	8900	ND	67200	0	117	1	80-120	J6	J3	200	15



Method Blank (MB)

(MB) R3228589-1 06/23/17 10:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	105	J	102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L917461-01 Original Sample (OS) • Duplicate (DUP)

(OS) L917461-01 06/23/17 12:32 • (DUP) R3228589-3 06/23/17 12:49

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	16500	16600	1	0		20

L917515-04 Original Sample (OS) • Duplicate (DUP)

(OS) L917515-04 06/23/17 20:03 • (DUP) R3228589-7 06/23/17 20:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	423	323	1	27	J P1	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228589-2 06/23/17 12:16 • (LCSD) R3228589-6 06/23/17 14:30

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	70100	73000	93	97	85-115			4	20

L917496-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917496-01 06/23/17 13:19 • (MS) R3228589-4 06/23/17 13:37 • (MSD) R3228589-5 06/23/17 13:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	ND	46600	45700	92	91	1	80-120			2	20



Method Blank (MB)

(MB) R3228105-1 06/23/17 05:46

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228105-2 06/23/17 05:49 • (LCSD) R3228105-3 06/23/17 05:53

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5230	5030	105	101	80-120			4	20
Manganese	50.0	47.7	47.0	95	94	80-120			1	20

5 Sr

6 Qc

L916811-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916811-01 06/23/17 05:57 • (MS) R3228105-5 06/23/17 06:04 • (MSD) R3228105-6 06/23/17 06:07

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	17.7	5100	5040	102	100	1	75-125			1	20
Manganese	50.0	0.641	47.3	46.6	93	92	1	75-125			1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3228107-5 06/22/17 11:25

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	92.8			77.0-122

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228107-3 06/22/17 10:18 • (LCSD) R3228107-4 06/22/17 10:41

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	6140	5860	112	107	72.0-134			4.68	20
(S) a,a,a-Trifluorotoluene(FID)				109	108	77.0-122				

L916945-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L916945-01 06/22/17 12:59 • (MS) R3228107-8 06/22/17 20:24 • (MSD) R3228107-9 06/22/17 20:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	ND	5480	5990	99.6	109	1	23.0-159			8.92	20
(S) a,a,a-Trifluorotoluene(FID)					98.8	97.9		77.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3227889-1 06/22/17 13:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

L917447-12 Original Sample (OS) • Duplicate (DUP)

(OS) L917447-12 06/22/17 13:49 • (DUP) R3227889-2 06/22/17 13:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

5 Sr

6 Qc

L917602-04 Original Sample (OS) • Duplicate (DUP)

(OS) L917602-04 06/22/17 14:30 • (DUP) R3227889-3 06/22/17 14:33

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227889-4 06/22/17 14:36 • (LCSD) R3227889-5 06/22/17 14:41

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ethane	129	121	119	93.9	92.4	70.0-130			1.61	20
Ethene	127	116	114	91.0	89.6	70.0-130			1.57	20



Method Blank (MB)

(MB) R3227931-1 06/22/17 15:02

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

¹ Cp

² Tc

³ Ss

L917449-10 Original Sample (OS) • Duplicate (DUP)

(OS) L917449-10 06/22/17 15:20 • (DUP) R3227931-2 06/22/17 15:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	2360	2260	5	4.43		20

⁴ Cn

⁵ Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3227931-3 06/22/17 15:34 • (LCSD) R3227931-4 06/22/17 15:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	70.1	77.4	103	114	70.0-130			9.99	20

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3229094-3 06/27/17 12:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3229094-3 06/27/17 12:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	112			80.0-120
(S) Dibromofluoromethane	99.5			76.0-123
(S) 4-Bromofluorobenzene	98.0			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229094-1 06/27/17 10:55 • (LCSD) R3229094-2 06/27/17 11:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	104	103	83.6	82.1	10.0-160			1.74	23
Acrylonitrile	125	80.1	73.8	64.1	59.1	60.0-142	J4	J4	8.18	20
Benzene	25.0	22.8	23.3	91.2	93.1	69.0-123			2.11	20
Bromobenzene	25.0	23.5	23.3	94.0	93.2	79.0-120			0.800	20
Bromodichloromethane	25.0	21.2	21.9	84.8	87.5	76.0-120			3.17	20
Bromochloromethane	25.0	22.1	21.9	88.4	87.8	76.0-122			0.740	20
Bromoform	25.0	20.5	19.8	82.0	79.2	67.0-132			3.48	20
Bromomethane	25.0	16.6	18.9	66.4	75.6	18.0-160			13.0	20
n-Butylbenzene	25.0	25.3	26.0	101	104	72.0-126			2.75	20
sec-Butylbenzene	25.0	24.9	25.2	99.6	101	74.0-121			1.15	20
tert-Butylbenzene	25.0	24.6	24.9	98.3	99.6	75.0-122			1.24	20
Carbon disulfide	25.0	25.1	26.0	101	104	55.0-127			3.48	20
Carbon tetrachloride	25.0	20.4	21.6	81.7	86.4	63.0-122			5.61	20
Chlorobenzene	25.0	25.7	26.0	103	104	79.0-121			1.14	20
Chlorodibromomethane	25.0	23.5	22.8	94.1	91.1	75.0-125			3.28	20
Chloroethane	25.0	21.6	23.0	86.4	91.9	47.0-152			6.13	20
Chloroform	25.0	20.9	21.3	83.7	85.3	72.0-121			1.97	20
Chloromethane	25.0	19.9	20.9	79.6	83.5	48.0-139			4.73	20
2-Chlorotoluene	25.0	24.4	24.8	97.7	99.3	74.0-122			1.55	20
4-Chlorotoluene	25.0	25.1	24.9	100	99.6	79.0-120			0.800	20
1,2-Dibromo-3-Chloropropane	25.0	16.8	16.0	67.3	64.1	64.0-127			4.86	20
1,2-Dibromoethane	25.0	21.6	21.4	86.5	85.7	77.0-123			0.980	20
Dibromomethane	25.0	19.9	20.4	79.4	81.8	78.0-120			2.93	20
1,2-Dichlorobenzene	25.0	25.2	25.3	101	101	80.0-120			0.450	20
1,3-Dichlorobenzene	25.0	25.6	25.2	103	101	72.0-123			1.55	20
1,4-Dichlorobenzene	25.0	25.3	25.2	101	101	77.0-120			0.310	20
Dichlorodifluoromethane	25.0	21.2	22.1	84.7	88.5	49.0-155			4.50	20
1,1-Dichloroethane	25.0	21.7	22.1	86.9	88.5	70.0-126			1.73	20
1,2-Dichloroethane	25.0	19.3	19.3	77.2	77.3	67.0-126			0.110	20
1,1-Dichloroethene	25.0	24.9	26.5	99.5	106	64.0-129			6.29	20
cis-1,2-Dichloroethene	25.0	22.1	22.6	88.5	90.4	73.0-120			2.17	20
trans-1,2-Dichloroethene	25.0	22.6	23.3	90.5	93.2	71.0-121			2.89	20
1,2-Dichloropropane	25.0	22.4	22.8	89.6	91.2	75.0-125			1.76	20
1,1-Dichloropropene	25.0	22.3	22.9	89.3	91.7	71.0-129			2.67	20
1,3-Dichloropropane	25.0	22.0	21.8	87.8	87.3	80.0-121			0.540	20
cis-1,3-Dichloropropene	25.0	23.5	23.6	93.9	94.3	79.0-123			0.440	20
trans-1,3-Dichloropropene	25.0	22.1	21.8	88.6	87.4	74.0-127			1.35	20
trans-1,4-Dichloro-2-butene	25.0	15.3	13.9	61.3	55.5	55.0-134			9.91	20
2,2-Dichloropropane	25.0	20.7	22.1	82.9	88.3	60.0-125			6.28	20
Di-isopropyl ether	25.0	19.3	19.4	77.3	77.4	59.0-133			0.190	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229094-1 06/27/17 10:55 • (LCSD) R3229094-2 06/27/17 11:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	26.3	27.0	105	108	77.0-120			2.44	20
Hexachloro-1,3-butadiene	25.0	21.8	23.7	87.3	94.9	64.0-131			8.38	20
2-Hexanone	125	106	106	84.5	84.8	58.0-147			0.330	20
n-Hexane	25.0	21.7	22.9	86.6	91.7	56.0-124			5.72	20
Iodomethane	125	112	119	89.7	95.0	57.0-140			5.82	20
Isopropylbenzene	25.0	24.9	25.3	99.6	101	75.0-120			1.78	20
p-Isopropyltoluene	25.0	24.9	25.4	99.6	102	74.0-126			1.93	20
2-Butanone (MEK)	125	80.7	79.5	64.5	63.6	37.0-158			1.44	20
Methylene Chloride	25.0	22.8	22.9	91.1	91.8	66.0-121			0.710	20
4-Methyl-2-pentanone (MIBK)	125	83.9	81.4	67.1	65.1	59.0-143			2.94	20
Methyl tert-butyl ether	25.0	18.2	17.9	72.7	71.5	64.0-123			1.68	20
Naphthalene	25.0	16.8	16.2	67.2	65.0	62.0-128			3.40	20
n-Propylbenzene	25.0	25.0	25.3	100	101	79.0-120			1.10	20
Styrene	25.0	25.4	25.5	102	102	78.0-124			0.340	20
1,1,1,2-Tetrachloroethane	25.0	23.9	24.1	95.5	96.4	75.0-122			0.940	20
1,1,2,2-Tetrachloroethane	25.0	19.3	18.1	77.1	72.3	71.0-122			6.51	20
1,1,2-Trichlorotrifluoroethane	25.0	24.6	25.7	98.2	103	61.0-136			4.46	20
Tetrachloroethene	25.0	26.8	27.3	107	109	70.0-127			1.89	20
Toluene	25.0	25.8	26.5	103	106	77.0-120			2.79	20
1,2,3-Trichlorobenzene	25.0	19.2	18.8	76.9	75.0	61.0-133			2.43	20
1,2,4-Trichlorobenzene	25.0	23.2	23.2	93.0	92.8	69.0-129			0.220	20
1,1,1-Trichloroethane	25.0	22.4	22.8	89.5	91.1	68.0-122			1.71	20
1,1,2-Trichloroethane	25.0	22.2	21.9	88.7	87.4	78.0-120			1.45	20
Trichloroethene	25.0	23.5	24.2	94.0	96.8	78.0-120			3.01	20
Trichlorofluoromethane	25.0	22.3	23.4	89.4	93.8	56.0-137			4.82	20
1,2,3-Trichloropropane	25.0	17.6	17.1	70.4	68.4	72.0-124	J4	J4	2.92	20
1,2,4-Trimethylbenzene	25.0	24.9	25.2	99.6	101	75.0-120			1.22	20
1,2,3-Trimethylbenzene	25.0	25.4	25.2	102	101	75.0-120			0.700	20
1,3,5-Trimethylbenzene	25.0	24.7	25.1	98.6	101	75.0-120			1.93	20
Vinyl acetate	125	84.3	80.9	67.4	64.7	46.0-160			4.15	20
Vinyl chloride	25.0	21.5	23.2	86.2	92.7	64.0-133			7.26	20
Xylenes, Total	75.0	76.8	79.3	102	106	77.0-120			3.20	20
(S) Toluene-d8				113	114	80.0-120				
(S) Dibromofluoromethane				94.6	95.2	76.0-123				
(S) 4-Bromofluorobenzene				99.1	98.3	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

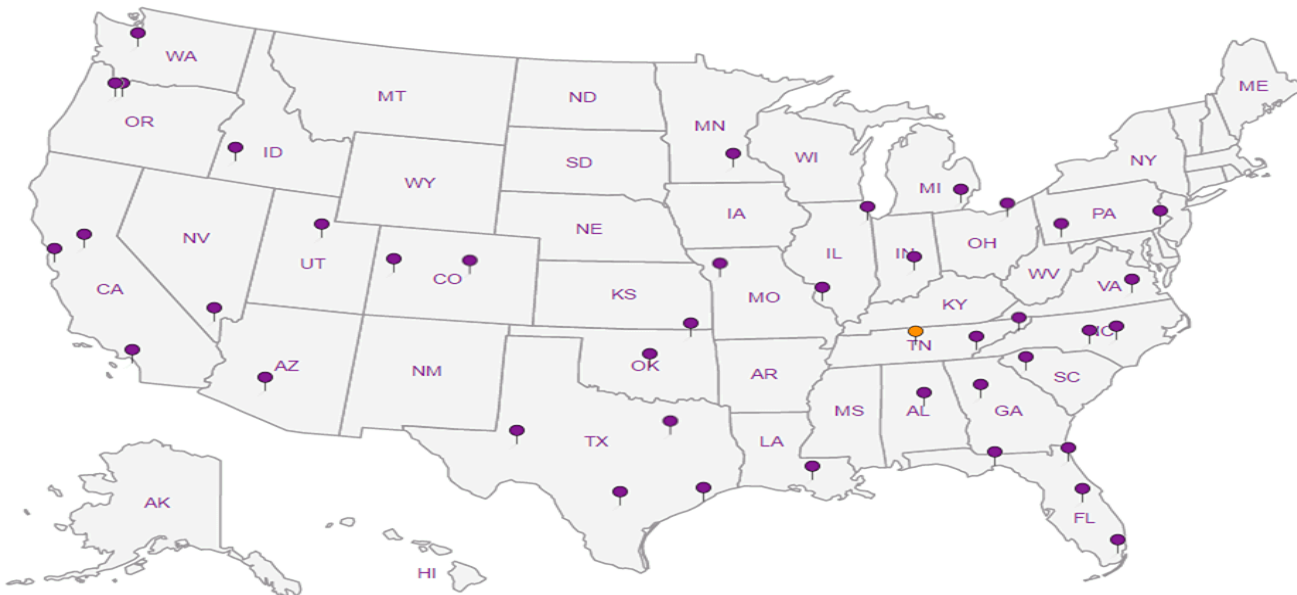
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhaldean@pesenv.com

Project
Description: **American Linen Supply**

City/State
Collected: **SEATTLE, WA**

Phone: 206-529-3980
Fax: 206-529-3985

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Immediately

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

Packed on Ice: N Y X

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **917455** 917460

G142

Acctnum: **PESENVSWA**

Template: **T124201**

Prelogin: **P603202** ²⁶⁰⁶⁹⁴

TSR: **110 - Brian Ford**

PB: **5-31-17**

Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	* Alk, Cl, NO3, SO4 250mlHDPE-NoPres	NWTPHGX 40mlAmb-HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl
MW121-062017	GRAB	GW	20	6/20/17	1145	9	X	X	X	X	X	X
MWD-062017 MW-D-062017	↓	GW	20	↓	1255	6	X	X	X	X	X	X
MW-9-062017	↓	GW	21.5	↓	1345	6	X	X	X	X	X	X
MW131-062017	↓	GW	48.8	↓	1550	11	X	X	X	X	X	X
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

Remarks	Sample # (lab only)
-01	-01-118
-02	-02-119
-03	-03-121
-04	-04-122

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other

Remarks: *NO3 nitrate has a 48 hour holding time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking # **7372 1955 0649**

Sample Receipt Checklist:
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)
[Signature]

Date: **6/20/17** Time: **1710**

Received by: (Signature)

Trip Blank Received: Yes (No)
HCl/MeOH
TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: **7.1°C** Bottles Received: **7011 32**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)

Date: **06-21-2017** Time: **0845**

Hold: Condition NCF *[Signature]*

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information

Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page of



YOUR LAB OF CHOICE

12265 Lebonce Rd
MADISON, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



LN 917455 917461
G142

Acctnum: PESENVSWA
Template: T124201
Prelogin: P603202 PG06
TSR: 110 - Brian Ford
PB: 5-31-17
Shipped Via: **FedEX Ground**

Report to
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project
Description: **American Linen Supply**

City/State
Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

Immediately

Packed on Ice: N Y X

No
of
Entrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Entrs	*Alk,Cl,NO3,SO4 250mlHDPE-NoPres	NWTPH GX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl
MW12-062017	GRAB	GW	20	6/10/17	1145	9	X	X	X	X	X	X
MW14-062017	↓	GW	20	↓	1255	6	X	X	X	X	X	X
MW19-062017	↓	GW	21.5	↓	1345	6	X	X	X	X	X	X
MW131-062017	↓	GW	48.81	↓	1550	11	X	X	X	X	X	X
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

Remarks	Sample # (lab only)
-01	+01-119
-02	-02-119
-03	-03-125
-04	-04-125

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NO3 nitrate has a 48 hour holding time

Samples returned via:
 UPS FedEx Courier

Tracking # **7372 1955 UG49**

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles sealed/Intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N

If Applicable

VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)
[Signature]

Date: **6/20/17**
Time: **17:10**

Received by: (Signature)

Trip Blank Received: Yes No
HCL/MeOH
TBK

Relinquished by: (Signature)

Date: _____
Time: _____

Received by: (Signature)

Temp: _____ °C
Bottles Received: **2.1c + 11 32**

Relinquished by: (Signature)

Date: _____
Time: _____

Received for lab by: (Signature)

Date: **06-21-2017**
Time: **0845**

If preservation required by Login: Date/Time

Hold: _____
Condition: **NCF**

MEMORANDUM

TO: Project File **DATE:** July 25, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 20, 2017- Groundwater Samples
LAB: ESC Lab ID L917461

Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 20, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L917461. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L917461 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.1 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

Samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

Samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

Samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for acrylonitrile, bromomethane, chloromethane, 1,2-dibromo-3-chloropropane, dibromomethane, 1,2-dichloroethane, trans-1,4-dichloro-2-butene, di-isopropyl ether, 2-Butanone (MEK), 4-methyl-2-pentanone (MIBK), methyl tert-butyl ether, naphthalene, 1,1,2,2-tetrachloroethane, 1,2,3-trichlorobenzene, 1,2,3-trichloropropane, and vinyl acetate were identified by the laboratory for all associated samples with analytical batch WG993152 (analyzed on June 27, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All sample results for above mentioned compounds are estimated and qualified (UJ or J).**

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

NWTPH-Gx Method:

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

Method RSK-175:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

USEPA Method 6020:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level of alkalinity was measured in the method blank associated with analytical batch WG992368 (date of analysis is June 26, 2017) between the RDL and method detection limit (MDL). No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.
- A low level of TOC was detected in the method blank associated with analytical batch WG992075 (date of analysis is June 23, 2017) between the RDL and MDL. No action

was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Method RSK-175:

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: Laboratory duplicate samples were performed on a non-client sample and on sample MW131-062017 within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: Laboratory duplicate samples were performed on non-client sample and sample within the analytical batches. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

EPA Method 9060A: A laboratory duplicate sample was performed on a non-client sample and on sample MW121-062017 within the analytical batch. The primary/duplicate RPDs for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the sample, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCSD (Batch WG993152) spike compound (acrylonitrile) percent recovery is slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken on this basis as LCS percent recovery results are within.
- LCS/LCSD (Batch WG993152) spike compound (1,2,3-trichloropropane) percent recoveries are also slightly below laboratory acceptance criteria and qualified by the laboratory (J4). **Spike compound, 1,2,3-trichloropropane, was not detected in associated samples and all associated results are estimated (UJ) due to slightly low LCS/LCSD recoveries.**

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

NWTPH-Gx Method:

MS/MSD analysis analyses were not performed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Method RSK-175:

MS/MSD analyses were not performed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

USEPA Method 6020:

MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS/MSD analyses were performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water with the following discussion:

- MS/MSD sulfate percent recoveries and RPD result associated with Batch WG993019 are outside of laboratory acceptance criteria. No action was taken as the matrix spike was performed on a non-client sample and LCS/LCSD results are within acceptance criteria.

EPA Method 9060A: MS/MSD analysis was performed on sample MW121-062017 within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	930000		2710	20000	1	06/27/2017 08:53	WG992368

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	13300		51.9	1000	1	06/21/2017 22:15	WG991594
Nitrate	U		22.7	100	1	06/21/2017 22:15	WG991594
Sulfate	61200	J ↓	7740	500000	100	06/28/2017 19:56	WG993019

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	16500		102	1000	1	06/23/2017 12:32	WG992075

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	27100		15.0	100	1	06/23/2017 08:12	WG991760
Manganese	11000		0.500	10.0	2	06/23/2017 10:41	WG991760

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	2140		1.44	3.39	5	06/22/2017 15:22	WG992024
Ethane	8.88		0.296	1.29	1	06/22/2017 14:17	WG991514
Ethene	U		0.422	1.27	1	06/22/2017 14:17	WG991514

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/27/2017 14:54	WG993152
Acrylonitrile	U	VJ JO J4	0.873	5.00	1	06/27/2017 14:54	WG993152
Benzene	0.186	J ↓	0.0896	0.500	1	06/27/2017 14:54	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:54	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:54	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:54	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:54	WG993152
Bromomethane	U	VJ JO	0.157	2.50	1	06/27/2017 14:54	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:54	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:54	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:54	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 14:54	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:54	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:54	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:54	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:54	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 14:54	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 14:54	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:54	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:54	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 14:54	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:54	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 14:54	WG993152

OC 7/25/17



Collected date/time: 06/20/17 11:45

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:54	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:54	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:54	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:54	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 14:54	WG993152
1,2-Dichloroethane	U	US JO	0.108	0.500	1	06/27/2017 14:54	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 14:54	WG993152
cis-1,2-Dichloroethene	1.13		0.0933	0.500	1	06/27/2017 14:54	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 14:54	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:54	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:54	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:54	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:54	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:54	WG993152
trans-1,4-Dichloro-2-butene	U	US JO	0.257	5.00	1	06/27/2017 14:54	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:54	WG993152
Di-isopropyl ether	U	US JO	0.0924	0.500	1	06/27/2017 14:54	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:54	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:54	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:54	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:54	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:54	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:54	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:54	WG993152
2-Butanone (MEK)	U	US JO	1.28	5.00	1	06/27/2017 14:54	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:54	WG993152
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 14:54	WG993152
Methyl tert-butyl ether	U	US JO	0.102	0.500	1	06/27/2017 14:54	WG993152
Naphthalene	U	US JO	0.174	2.50	1	06/27/2017 14:54	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:54	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:54	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:54	WG993152
1,1,2,2-Tetrachloroethane	U	US JO	0.130	0.500	1	06/27/2017 14:54	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:54	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 14:54	WG993152
Toluene	0.774		0.412	0.500	1	06/27/2017 14:54	WG993152
1,2,3-Trichlorobenzene	U	US JO	0.164	0.500	1	06/27/2017 14:54	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:54	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:54	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:54	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 14:54	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:54	WG993152
1,2,3-Trichloropropane	U	US JO J4	0.247	2.50	1	06/27/2017 14:54	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:54	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:54	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:54	WG993152
Vinyl acetate	U	US JO	0.645	5.00	1	06/27/2017 14:54	WG993152
Vinyl chloride	7.68		0.118	0.500	1	06/27/2017 14:54	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:54	WG993152
(S) Toluene-d8	109	✓		80.0-120		06/27/2017 14:54	WG993152
(S) Dibromodifluoromethane	102			76.0-123		06/27/2017 14:54	WG993152
(S) 4-Bromodifluorobenzene	99.5	✓		80.0-120		06/27/2017 14:54	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sc 7/12/17

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 18:33	WG991811
(S) o,a,a-Trifluorotoluene(FID)	93.3			77.0-122		06/22/2017 18:33	WG991811

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/27/2017 15:11	WG993152
Acrylonitrile	U	VJ	0.873	5.00	1	06/27/2017 15:11	WG993152
Benzene	U		0.0896	0.500	1	06/27/2017 15:11	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 15:11	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 15:11	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 15:11	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 15:11	WG993152
Bromomethane	U	VJ	0.157	2.50	1	06/27/2017 15:11	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 15:11	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 15:11	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 15:11	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 15:11	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 15:11	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 15:11	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 15:11	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 15:11	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 15:11	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 15:11	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 15:11	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 15:11	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ	0.325	2.50	1	06/27/2017 15:11	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 15:11	WG993152
Dibromomethane	U	VJ	0.117	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 15:11	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 15:11	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 15:11	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 15:11	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichloroethane	U	VJ	0.108	0.500	1	06/27/2017 15:11	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 15:11	WG993152
cis-1,2-Dichloroethene	0.211	J	0.0933	0.500	1	06/27/2017 15:11	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 15:11	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 15:11	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 15:11	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 15:11	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 15:11	WG993152
trans-1,4-Dichloro-2-butene	U	VJ	0.257	5.00	1	06/27/2017 15:11	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 15:11	WG993152
Di-isopropyl ether	U	VJ	0.0924	0.500	1	06/27/2017 15:11	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 15:11	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 15:11	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 15:11	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 15:11	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 15:11	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 15:11	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 15:11	WG993152
2-Butanone (MEK)	U	VJ	1.28	5.00	1	06/27/2017 15:11	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 15:11	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Ac 9/12/5/17



Collected date/time: 06/20/17 12:55

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 15:11	WG993152
Methyl tert-butyl ether	U	VJ JO	0.102	0.500	1	06/27/2017 15:11	WG993152
Naphthalene	U	VJ JO	0.174	2.50	1	06/27/2017 15:11	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 15:11	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 15:11	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 15:11	WG993152
1,1,2,2-Tetrachloroethane	U	VJ JO	0.130	0.500	1	06/27/2017 15:11	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 15:11	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 15:11	WG993152
Toluene	0.548		0.412	0.500	1	06/27/2017 15:11	WG993152
1,2,3-Trichlorobenzene	U	VJ JO	0.164	0.500	1	06/27/2017 15:11	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 15:11	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 15:11	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 15:11	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 15:11	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 15:11	WG993152
1,2,3-Trichloropropane	U	VJ JO J4	0.247	2.50	1	06/27/2017 15:11	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 15:11	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 15:11	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 15:11	WG993152
Vinyl acetate	U	VJ JO	0.645	5.00	1	06/27/2017 15:11	WG993152
Vinyl chloride	U		0.118	0.500	1	06/27/2017 15:11	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 15:11	WG993152
(S) Toluene-d8	110	/		80.0-120		06/27/2017 15:11	WG993152
(S) Dibromofluoromethane	101	/		76.0-123		06/27/2017 15:11	WG993152
(S) 4-Bromofluorobenzene	99.0	/		80.0-120		06/27/2017 15:11	WG993152

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Je
7/25/17



Collected date/time: 06/20/17 13:45

L917461

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 18:55	WG991811
(S) o,o,a-Trifluorotoluene(FID)	91.9			77.0-122		06/22/2017 18:55	WG991811

Cp

Tc

Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/27/2017 15:28	WG993152
Acrylonitrile	U	VJ JO J4	0.873	5.00	1	06/27/2017 15:28	WG993152
Benzene	U		0.0896	0.500	1	06/27/2017 15:28	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 15:28	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 15:28	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 15:28	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 15:28	WG993152
Bromomethane	U	VJ JO	0.157	2.50	1	06/27/2017 15:28	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 15:28	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 15:28	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 15:28	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 15:28	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 15:28	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 15:28	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 15:28	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 15:28	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 15:28	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 15:28	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 15:28	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 15:28	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 15:28	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 15:28	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 15:28	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 15:28	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 15:28	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 15:28	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichloroethane	U	VJ JO	0.108	0.500	1	06/27/2017 15:28	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 15:28	WG993152
cis-1,2-Dichloroethene	0.214	J J	0.0933	0.500	1	06/27/2017 15:28	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 15:28	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 15:28	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 15:28	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 15:28	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 15:28	WG993152
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/27/2017 15:28	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 15:28	WG993152
Di-isopropyl ether	U	VJ JO	0.0924	0.500	1	06/27/2017 15:28	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 15:28	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 15:28	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 15:28	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 15:28	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 15:28	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 15:28	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 15:28	WG993152
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	06/27/2017 15:28	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 15:28	WG993152

Cn

Si

Qc

Gl

Al

Sc

Je Atlas 11/7

MW-9-062017

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.



Collected date/time: 06/20/17 13:45

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 15:28	WG993152
Methyl tert-butyl ether	U	VJ JO	0.102	0.500	1	06/27/2017 15:28	WG993152
Naphthalene	U	VJ JO	0.174	2.50	1	06/27/2017 15:28	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 15:28	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 15:28	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 15:28	WG993152
1,1,2,2-Tetrachloroethane	U	VJ JO	0.130	0.500	1	06/27/2017 15:28	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 15:28	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 15:28	WG993152
Toluene	0.562		0.412	0.500	1	06/27/2017 15:28	WG993152
1,2,3-Trichlorobenzene	U	VJ JO	0.164	0.500	1	06/27/2017 15:28	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 15:28	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 15:28	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 15:28	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 15:28	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 15:28	WG993152
1,2,3-Trichloropropane	U	VJ JO J4	0.247	2.50	1	06/27/2017 15:28	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 15:28	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 15:28	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 15:28	WG993152
Vinyl acetate	U	VJ JO	0.645	5.00	1	06/27/2017 15:28	WG993152
Vinyl chloride	U		0.118	0.500	1	06/27/2017 15:28	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 15:28	WG993152
(S) Toluene-d8	112	/		80.0-120		06/27/2017 15:28	WG993152
(S) Dibromofluoromethane	102	/		76.0-123		06/27/2017 15:28	WG993152
(S) 4-Bromofluorobenzene	100	/		80.0-120		06/27/2017 15:28	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Si

6 Qc

7 Gl

8 Al

9 Sc

Jc
7/25/17



Collected date/time: 06/20/17 15:50

L917461

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	1050000		2710	20000	1	06/27/2017 09:00	WG992368

¹ Cp

² Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	122000		260	5000	5	06/21/2017 22:35	WG991594
Nitrate	U		22.7	100	1	06/21/2017 22:25	WG991594
Sulfate	724	J	77.4	5000	1	06/21/2017 22:25	WG991594

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	10800		102	1000	1	06/23/2017 13:02	WG992075

⁶ Qc

⁷ Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	7420		15.0	100	1	06/23/2017 08:16	WG991760
Manganese	1010		0.250	5.00	1	06/23/2017 08:16	WG991760

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 19:17	WG991811
(S) o,a,a-Trifluorotoluene(FID)	92.7			77.0-122		06/22/2017 19:17	WG991811

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	10700		5.74	13.6	20	06/22/2017 15:29	WG992024
Ethane	U		0.296	1.29	1	06/22/2017 14:19	WG991514
Ethene	332		0.422	1.27	1	06/22/2017 14:19	WG991514

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		5.25	125	5	06/29/2017 01:29	WG993152
Acrylonitrile	U	VS JO J4	4.36	25.0	5	06/29/2017 01:29	WG993152
Benzene	U		0.448	2.50	5	06/29/2017 01:29	WG993152
Bromobenzene	U		0.665	2.50	5	06/29/2017 01:29	WG993152
Bromodichloromethane	U		0.400	2.50	5	06/29/2017 01:29	WG993152
Bromochloromethane	U		0.725	2.50	5	06/29/2017 01:29	WG993152
Bromoform	U		0.930	2.50	5	06/29/2017 01:29	WG993152
Bromomethane	U	VS JO	0.785	12.5	5	06/29/2017 01:29	WG993152
n-Butylbenzene	U		0.715	2.50	5	06/29/2017 01:29	WG993152
sec-Butylbenzene	U		0.670	2.50	5	06/29/2017 01:29	WG993152
tert-Butylbenzene	U		0.915	2.50	5	06/29/2017 01:29	WG993152
Carbon disulfide	U		0.505	2.50	5	06/29/2017 01:29	WG993152
Carbon tetrachloride	U		0.795	2.50	5	06/29/2017 01:29	WG993152
Chlorobenzene	U		0.700	2.50	5	06/29/2017 01:29	WG993152
Chlorodibromomethane	U		0.640	2.50	5	06/29/2017 01:29	WG993152
Chloroethane	U		0.705	12.5	5	06/29/2017 01:29	WG993152

JC 7/25/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloroform	U		0.430	2.50	5	06/29/2017 01:29	WG993152
Chloromethane	U		0.765	6.25	5	06/29/2017 01:29	WG993152
2-Chlorotoluene	U		0.555	2.50	5	06/29/2017 01:29	WG993152
4-Chlorotoluene	U		0.486	2.50	5	06/29/2017 01:29	WG993152
1,2-Dibromo-3-Chloropropane	U	UJ JO	1.62	12.5	5	06/29/2017 01:29	WG993152
1,2-Dibromoethane	U		0.965	2.50	5	06/29/2017 01:29	WG993152
Dibromomethane	U	UJ JO	0.585	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichlorobenzene	U		0.505	2.50	5	06/29/2017 01:29	WG993152
1,3-Dichlorobenzene	U		0.650	2.50	5	06/29/2017 01:29	WG993152
1,4-Dichlorobenzene	U		0.605	2.50	5	06/29/2017 01:29	WG993152
Dichlorodifluoromethane	U		0.635	12.5	5	06/29/2017 01:29	WG993152
1,1-Dichloroethane	U		0.570	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichloroethane	U	UJ JO	0.540	2.50	5	06/29/2017 01:29	WG993152
1,1-Dichloroethene	U		0.940	2.50	5	06/29/2017 01:29	WG993152
cis-1,2-Dichloroethene	2.55		0.466	2.50	5	06/29/2017 01:29	WG993152
trans-1,2-Dichloroethene	U		0.760	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichloropropane	U		0.950	2.50	5	06/29/2017 01:29	WG993152
1,1-Dichloropropene	U		0.640	2.50	5	06/29/2017 01:29	WG993152
1,3-Dichloropropane	U		0.735	5.00	5	06/29/2017 01:29	WG993152
cis-1,3-Dichloropropene	U		0.488	2.50	5	06/29/2017 01:29	WG993152
trans-1,3-Dichloropropene	U		1.11	2.50	5	06/29/2017 01:29	WG993152
trans-1,4-Dichloro-2-butene	U	UJ JO	1.28	25.0	5	06/29/2017 01:29	WG993152
2,2-Dichloropropane	U		0.464	2.50	5	06/29/2017 01:29	WG993152
Di-isopropyl ether	U	UJ JO	0.462	2.50	5	06/29/2017 01:29	WG993152
Ethylbenzene	U		0.790	2.50	5	06/29/2017 01:29	WG993152
Hexachloro-1,3-butadiene	U		0.785	5.00	5	06/29/2017 01:29	WG993152
2-Hexanone	U		3.78	25.0	5	06/29/2017 01:29	WG993152
n-Hexane	U		1.52	25.0	5	06/29/2017 01:29	WG993152
Iodomethane	U		1.88	50.0	5	06/29/2017 01:29	WG993152
Isopropylbenzene	U		0.630	2.50	5	06/29/2017 01:29	WG993152
p-Isopropyltoluene	U		0.690	2.50	5	06/29/2017 01:29	WG993152
2-Butanone (MEK)	U	UJ JO	6.40	25.0	5	06/29/2017 01:29	WG993152
Methylene Chloride	U		5.35	12.5	5	06/29/2017 01:29	WG993152
4-Methyl-2-pentanone (MIBK)	U		4.12	25.0	5	06/29/2017 01:29	WG993152
Methyl tert-butyl ether	U	UJ JO	0.510	2.50	5	06/29/2017 01:29	WG993152
Naphthalene	U	UJ JO	0.870	12.5	5	06/29/2017 01:29	WG993152
n-Propylbenzene	U		0.810	2.50	5	06/29/2017 01:29	WG993152
Styrene	U		0.585	2.50	5	06/29/2017 01:29	WG993152
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	06/29/2017 01:29	WG993152
1,1,2,2-Tetrachloroethane	U	UJ JO	0.650	2.50	5	06/29/2017 01:29	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	06/29/2017 01:29	WG993152
Tetrachloroethene	U		0.995	2.50	5	06/29/2017 01:29	WG993152
Toluene	U		2.06	2.50	5	06/29/2017 01:29	WG993152
1,2,3-Trichlorobenzene	U	UJ JO	0.820	2.50	5	06/29/2017 01:29	WG993152
1,2,4-Trichlorobenzene	U		1.78	2.50	5	06/29/2017 01:29	WG993152
1,1,1-Trichloroethane	U		0.470	2.50	5	06/29/2017 01:29	WG993152
1,1,2-Trichloroethane	U		0.930	2.50	5	06/29/2017 01:29	WG993152
Trichloroethene	U		0.765	2.50	5	06/29/2017 01:29	WG993152
Trichlorofluoromethane	U		0.650	12.5	5	06/29/2017 01:29	WG993152
1,2,3-Trichloropropane	U	UJ JO J4	1.24	12.5	5	06/29/2017 01:29	WG993152
1,2,4-Trimethylbenzene	U		0.615	2.50	5	06/29/2017 01:29	WG993152
1,2,3-Trimethylbenzene	U		0.370	2.50	5	06/29/2017 01:29	WG993152
1,3,5-Trimethylbenzene	U		0.620	2.50	5	06/29/2017 01:29	WG993152
Vinyl acetate	U	UJ JO	3.22	25.0	5	06/29/2017 01:29	WG993152
Vinyl chloride	435		0.590	2.50	5	06/29/2017 01:29	WG993152
Xylenes, Total	U		1.58	7.50	5	06/29/2017 01:29	WG993152

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

dc 7/25/17



Collected date/time: 06/20/17 15:50

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	111 ✓			80.0-120		06/29/2017 01:29 ✓	WG993152
(S) Dibromofluoromethane	104 ✓			76.0-123		06/29/2017 01:29	WG993152
(S) 4-Bromofluorobenzene	101 ✓			80.0-120		06/29/2017 01:29	WG993152

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Jc
9/25/17

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	930000		2710	20000	1	06/27/2017 08:53	WG992368

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	13300		51.9	1000	1	06/21/2017 22:15	WG991594
Nitrate	U		22.7	100	1	06/21/2017 22:15	WG991594
Sulfate	61200	J ↓	7740	500000	100	06/28/2017 19:56	WG993019

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	16500		102	1000	1	06/23/2017 12:32	WG992075

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	27100		15.0	100	1	06/23/2017 08:12	WG991760
Manganese	11000		0.500	10.0	2	06/23/2017 10:41	WG991760

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	2140		1.44	3.39	5	06/22/2017 15:22	WG992024
Ethane	8.88		0.296	1.29	1	06/22/2017 14:17	WG991514
Ethene	U		0.422	1.27	1	06/22/2017 14:17	WG991514

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/27/2017 14:54	WG993152
Acrylonitrile	U	VJ JO J4	0.873	5.00	1	06/27/2017 14:54	WG993152
Benzene	0.186	J ↓	0.0896	0.500	1	06/27/2017 14:54	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 14:54	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 14:54	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 14:54	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 14:54	WG993152
Bromomethane	U	VJ JO	0.157	2.50	1	06/27/2017 14:54	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 14:54	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 14:54	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 14:54	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 14:54	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 14:54	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 14:54	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 14:54	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 14:54	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 14:54	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 14:54	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 14:54	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 14:54	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 14:54	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 14:54	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 14:54	WG993152

OC 7/25/17



Collected date/time: 06/20/17 11:45

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 14:54	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 14:54	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 14:54	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 14:54	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 14:54	WG993152
1,2-Dichloroethane	U	US JO	0.108	0.500	1	06/27/2017 14:54	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 14:54	WG993152
cis-1,2-Dichloroethene	1.13		0.0933	0.500	1	06/27/2017 14:54	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 14:54	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 14:54	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 14:54	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 14:54	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 14:54	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 14:54	WG993152
trans-1,4-Dichloro-2-butene	U	US JO	0.257	5.00	1	06/27/2017 14:54	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 14:54	WG993152
Di-isopropyl ether	U	US JO	0.0924	0.500	1	06/27/2017 14:54	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 14:54	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 14:54	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 14:54	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 14:54	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 14:54	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 14:54	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 14:54	WG993152
2-Butanone (MEK)	U	US JO	1.28	5.00	1	06/27/2017 14:54	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 14:54	WG993152
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 14:54	WG993152
Methyl tert-butyl ether	U	US JO	0.102	0.500	1	06/27/2017 14:54	WG993152
Naphthalene	U	US JO	0.174	2.50	1	06/27/2017 14:54	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 14:54	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 14:54	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 14:54	WG993152
1,1,2,2-Tetrachloroethane	U	US JO	0.130	0.500	1	06/27/2017 14:54	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 14:54	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 14:54	WG993152
Toluene	0.774		0.412	0.500	1	06/27/2017 14:54	WG993152
1,2,3-Trichlorobenzene	U	US JO	0.164	0.500	1	06/27/2017 14:54	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 14:54	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 14:54	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 14:54	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 14:54	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 14:54	WG993152
1,2,3-Trichloropropane	U	US JO J4	0.247	2.50	1	06/27/2017 14:54	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 14:54	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 14:54	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 14:54	WG993152
Vinyl acetate	U	US JO	0.645	5.00	1	06/27/2017 14:54	WG993152
Vinyl chloride	7.68		0.118	0.500	1	06/27/2017 14:54	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 14:54	WG993152
(S) Toluene-d8	109	✓		80.0-120		06/27/2017 14:54	WG993152
(S) Dibromofluoromethane	102			76.0-123		06/27/2017 14:54	WG993152
(S) 4-Bromofluorobenzene	99.5	✓		80.0-120		06/27/2017 14:54	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sc 7/12/17



Collected date/time: 06/20/17 12:55

L917461

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 18:33	WG991811
(S) o,a,a-Trifluorotoluene(FID)	93.3			77.0-122		06/22/2017 18:33	WG991811

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/27/2017 15:11	WG993152
Acrylonitrile	U	VJ JO J4	0.873	5.00	1	06/27/2017 15:11	WG993152
Benzene	U		0.0896	0.500	1	06/27/2017 15:11	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 15:11	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 15:11	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 15:11	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 15:11	WG993152
Bromomethane	U	VJ JO	0.157	2.50	1	06/27/2017 15:11	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 15:11	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 15:11	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 15:11	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 15:11	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 15:11	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 15:11	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 15:11	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 15:11	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 15:11	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 15:11	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 15:11	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 15:11	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 15:11	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 15:11	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 15:11	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 15:11	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 15:11	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 15:11	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichloroethane	U	VJ JO	0.108	0.500	1	06/27/2017 15:11	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 15:11	WG993152
cis-1,2-Dichloroethene	0.211	J J	0.0933	0.500	1	06/27/2017 15:11	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 15:11	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 15:11	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 15:11	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 15:11	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 15:11	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 15:11	WG993152
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/27/2017 15:11	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 15:11	WG993152
Di-isopropyl ether	U	VJ JO	0.0924	0.500	1	06/27/2017 15:11	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 15:11	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 15:11	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 15:11	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 15:11	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 15:11	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 15:11	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 15:11	WG993152
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	06/27/2017 15:11	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 15:11	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Ac 9/12/5/17



Collected date/time: 06/20/17 12:55

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 15:11	WG993152
Methyl tert-butyl ether	U	VJ JO	0.102	0.500	1	06/27/2017 15:11	WG993152
Naphthalene	U	VJ JO	0.174	2.50	1	06/27/2017 15:11	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 15:11	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 15:11	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 15:11	WG993152
1,1,2,2-Tetrachloroethane	U	VJ JO	0.130	0.500	1	06/27/2017 15:11	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 15:11	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 15:11	WG993152
Toluene	0.548		0.412	0.500	1	06/27/2017 15:11	WG993152
1,2,3-Trichlorobenzene	U	VJ JO	0.164	0.500	1	06/27/2017 15:11	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 15:11	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 15:11	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 15:11	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 15:11	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 15:11	WG993152
1,2,3-Trichloropropane	U	VJ JO J4	0.247	2.50	1	06/27/2017 15:11	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 15:11	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 15:11	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 15:11	WG993152
Vinyl acetate	U	VJ JO	0.645	5.00	1	06/27/2017 15:11	WG993152
Vinyl chloride	U		0.118	0.500	1	06/27/2017 15:11	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 15:11	WG993152
(S) Toluene-d8	110	/		80.0-120		06/27/2017 15:11	WG993152
(S) Dibromofluoromethane	101	/		76.0-123		06/27/2017 15:11	WG993152
(S) 4-Bromofluorobenzene	99.0	/		80.0-120		06/27/2017 15:11	WG993152

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

Jc
7/25/17



Collected date/time: 06/20/17 13:45

L917461

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 18:55	WG991811
(S) o,o,a-Trifluorotoluene(FID)	91.9			77.0-122		06/22/2017 18:55	WG991811

Cp

Tc

Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	06/27/2017 15:28	WG993152
Acrylonitrile	U	VJ JO J4	0.873	5.00	1	06/27/2017 15:28	WG993152
Benzene	U		0.0896	0.500	1	06/27/2017 15:28	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 15:28	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 15:28	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 15:28	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 15:28	WG993152
Bromomethane	U	VJ JO	0.157	2.50	1	06/27/2017 15:28	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 15:28	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 15:28	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 15:28	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 15:28	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 15:28	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 15:28	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 15:28	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 15:28	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 15:28	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 15:28	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 15:28	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 15:28	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 15:28	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 15:28	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 15:28	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 15:28	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 15:28	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 15:28	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichloroethane	U	VJ JO	0.108	0.500	1	06/27/2017 15:28	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 15:28	WG993152
cis-1,2-Dichloroethene	0.214	J J	0.0933	0.500	1	06/27/2017 15:28	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 15:28	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 15:28	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 15:28	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 15:28	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 15:28	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 15:28	WG993152
trans-1,4-Dichloro-2-butene	U	VJ JO	0.257	5.00	1	06/27/2017 15:28	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 15:28	WG993152
Di-isopropyl ether	U	VJ JO	0.0924	0.500	1	06/27/2017 15:28	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 15:28	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 15:28	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 15:28	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 15:28	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 15:28	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 15:28	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 15:28	WG993152
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	06/27/2017 15:28	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 15:28	WG993152

Cn

Si

Qc

Gl

Al

Sc

Je Atlas 11/7

MW-9-062017

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.



Collected date/time: 06/20/17 13:45

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 15:28	WG993152
Methyl tert-butyl ether	U	VJ JO	0.102	0.500	1	06/27/2017 15:28	WG993152
Naphthalene	U	VJ JO	0.174	2.50	1	06/27/2017 15:28	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 15:28	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 15:28	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 15:28	WG993152
1,1,2,2-Tetrachloroethane	U	VJ JO	0.130	0.500	1	06/27/2017 15:28	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 15:28	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 15:28	WG993152
Toluene	0.562		0.412	0.500	1	06/27/2017 15:28	WG993152
1,2,3-Trichlorobenzene	U	VJ JO	0.164	0.500	1	06/27/2017 15:28	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 15:28	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 15:28	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 15:28	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 15:28	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 15:28	WG993152
1,2,3-Trichloropropane	U	VJ JO J4	0.247	2.50	1	06/27/2017 15:28	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 15:28	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 15:28	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 15:28	WG993152
Vinyl acetate	U	VJ JO	0.645	5.00	1	06/27/2017 15:28	WG993152
Vinyl chloride	U		0.118	0.500	1	06/27/2017 15:28	WG993152
Xylenes, Total	U		0.316	1.50	1	06/27/2017 15:28	WG993152
(S) Toluene-d8	112	/		80.0-120		06/27/2017 15:28	WG993152
(S) Dibromofluoromethane	102	/		76.0-123		06/27/2017 15:28	WG993152
(S) 4-Bromofluorobenzene	100	/		80.0-120		06/27/2017 15:28	WG993152

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Si
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

*Jc
7/25/17*



Collected date/time: 06/20/17 15:50

L917461

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	1050000		2710	20000	1	06/27/2017 09:00	WG992368

¹ Cp

² Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	122000		260	5000	5	06/21/2017 22:35	WG991594
Nitrate	U		22.7	100	1	06/21/2017 22:25	WG991594
Sulfate	724	J	77.4	5000	1	06/21/2017 22:25	WG991594

³ Ss

⁴ Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	10800		102	1000	1	06/23/2017 13:02	WG992075

⁶ Qc

⁷ Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	7420		15.0	100	1	06/23/2017 08:16	WG991760
Manganese	1010		0.250	5.00	1	06/23/2017 08:16	WG991760

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/22/2017 19:17	WG991811
(S) o,a,a-Trifluorotoluene(FID)	92.7			77.0-122		06/22/2017 19:17	WG991811

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	10700		5.74	13.6	20	06/22/2017 15:29	WG992024
Ethane	U		0.296	1.29	1	06/22/2017 14:19	WG991514
Ethene	332		0.422	1.27	1	06/22/2017 14:19	WG991514

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		5.25	125	5	06/29/2017 01:29	WG993152
Acrylonitrile	U	J5 J0 J4	4.36	25.0	5	06/29/2017 01:29	WG993152
Benzene	U		0.448	2.50	5	06/29/2017 01:29	WG993152
Bromobenzene	U		0.665	2.50	5	06/29/2017 01:29	WG993152
Bromodichloromethane	U		0.400	2.50	5	06/29/2017 01:29	WG993152
Bromochloromethane	U		0.725	2.50	5	06/29/2017 01:29	WG993152
Bromoform	U		0.930	2.50	5	06/29/2017 01:29	WG993152
Bromomethane	U	J5 J0	0.785	12.5	5	06/29/2017 01:29	WG993152
n-Butylbenzene	U		0.715	2.50	5	06/29/2017 01:29	WG993152
sec-Butylbenzene	U		0.670	2.50	5	06/29/2017 01:29	WG993152
tert-Butylbenzene	U		0.915	2.50	5	06/29/2017 01:29	WG993152
Carbon disulfide	U		0.505	2.50	5	06/29/2017 01:29	WG993152
Carbon tetrachloride	U		0.795	2.50	5	06/29/2017 01:29	WG993152
Chlorobenzene	U		0.700	2.50	5	06/29/2017 01:29	WG993152
Chlorodibromomethane	U		0.640	2.50	5	06/29/2017 01:29	WG993152
Chloroethane	U		0.705	12.5	5	06/29/2017 01:29	WG993152

Jc 7/25/17



Collected date/time: 06/20/17 15:50

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloroform	U		0.430	2.50	5	06/29/2017 01:29	WG993152
Chloromethane	U		0.765	6.25	5	06/29/2017 01:29	WG993152
2-Chlorotoluene	U		0.555	2.50	5	06/29/2017 01:29	WG993152
4-Chlorotoluene	U		0.486	2.50	5	06/29/2017 01:29	WG993152
1,2-Dibromo-3-Chloropropane	U	UJ JO	1.62	12.5	5	06/29/2017 01:29	WG993152
1,2-Dibromoethane	U		0.965	2.50	5	06/29/2017 01:29	WG993152
Dibromomethane	U	UJ JO	0.585	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichlorobenzene	U		0.505	2.50	5	06/29/2017 01:29	WG993152
1,3-Dichlorobenzene	U		0.650	2.50	5	06/29/2017 01:29	WG993152
1,4-Dichlorobenzene	U		0.605	2.50	5	06/29/2017 01:29	WG993152
Dichlorodifluoromethane	U		0.635	12.5	5	06/29/2017 01:29	WG993152
1,1-Dichloroethane	U		0.570	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichloroethane	U	UJ JO	0.540	2.50	5	06/29/2017 01:29	WG993152
1,1-Dichloroethene	U		0.940	2.50	5	06/29/2017 01:29	WG993152
cis-1,2-Dichloroethene	2.55		0.466	2.50	5	06/29/2017 01:29	WG993152
trans-1,2-Dichloroethene	U		0.760	2.50	5	06/29/2017 01:29	WG993152
1,2-Dichloropropane	U		0.950	2.50	5	06/29/2017 01:29	WG993152
1,1-Dichloropropene	U		0.640	2.50	5	06/29/2017 01:29	WG993152
1,3-Dichloropropane	U		0.735	5.00	5	06/29/2017 01:29	WG993152
cis-1,3-Dichloropropene	U		0.488	2.50	5	06/29/2017 01:29	WG993152
trans-1,3-Dichloropropene	U		1.11	2.50	5	06/29/2017 01:29	WG993152
trans-1,4-Dichloro-2-butene	U	UJ JO	1.28	25.0	5	06/29/2017 01:29	WG993152
2,2-Dichloropropane	U		0.464	2.50	5	06/29/2017 01:29	WG993152
Di-isopropyl ether	U	UJ JO	0.462	2.50	5	06/29/2017 01:29	WG993152
Ethylbenzene	U		0.790	2.50	5	06/29/2017 01:29	WG993152
Hexachloro-1,3-butadiene	U		0.785	5.00	5	06/29/2017 01:29	WG993152
2-Hexanone	U		3.78	25.0	5	06/29/2017 01:29	WG993152
n-Hexane	U		1.52	25.0	5	06/29/2017 01:29	WG993152
Iodomethane	U		1.88	50.0	5	06/29/2017 01:29	WG993152
Isopropylbenzene	U		0.630	2.50	5	06/29/2017 01:29	WG993152
p-Isopropyltoluene	U		0.690	2.50	5	06/29/2017 01:29	WG993152
2-Butanone (MEK)	U	UJ JO	6.40	25.0	5	06/29/2017 01:29	WG993152
Methylene Chloride	U		5.35	12.5	5	06/29/2017 01:29	WG993152
4-Methyl-2-pentanone (MIBK)	U		4.12	25.0	5	06/29/2017 01:29	WG993152
Methyl tert-butyl ether	U	UJ JO	0.510	2.50	5	06/29/2017 01:29	WG993152
Naphthalene	U	UJ JO	0.870	12.5	5	06/29/2017 01:29	WG993152
n-Propylbenzene	U		0.810	2.50	5	06/29/2017 01:29	WG993152
Styrene	U		0.585	2.50	5	06/29/2017 01:29	WG993152
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	06/29/2017 01:29	WG993152
1,1,2,2-Tetrachloroethane	U	UJ JO	0.650	2.50	5	06/29/2017 01:29	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	06/29/2017 01:29	WG993152
Tetrachloroethene	U		0.995	2.50	5	06/29/2017 01:29	WG993152
Toluene	U		2.06	2.50	5	06/29/2017 01:29	WG993152
1,2,3-Trichlorobenzene	U	UJ JO	0.820	2.50	5	06/29/2017 01:29	WG993152
1,2,4-Trichlorobenzene	U		1.78	2.50	5	06/29/2017 01:29	WG993152
1,1,1-Trichloroethane	U		0.470	2.50	5	06/29/2017 01:29	WG993152
1,1,2-Trichloroethane	U		0.930	2.50	5	06/29/2017 01:29	WG993152
Trichloroethene	U		0.765	2.50	5	06/29/2017 01:29	WG993152
Trichlorofluoromethane	U		0.650	12.5	5	06/29/2017 01:29	WG993152
1,2,3-Trichloropropane	U	UJ JO J4	1.24	12.5	5	06/29/2017 01:29	WG993152
1,2,4-Trimethylbenzene	U		0.615	2.50	5	06/29/2017 01:29	WG993152
1,2,3-Trimethylbenzene	U		0.370	2.50	5	06/29/2017 01:29	WG993152
1,3,5-Trimethylbenzene	U		0.620	2.50	5	06/29/2017 01:29	WG993152
Vinyl acetate	U	UJ JO	3.22	25.0	5	06/29/2017 01:29	WG993152
Vinyl chloride	435		0.590	2.50	5	06/29/2017 01:29	WG993152
Xylenes, Total	U		1.58	7.50	5	06/29/2017 01:29	WG993152

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

dc 7/25/17



Collected date/time: 06/20/17 15:50

L917461

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	111 ✓			80.0-120		06/29/2017 01:29 ✓	WG993152
(S) Dibromofluoromethane	104 ✓			76.0-123		06/29/2017 01:29	WG993152
(S) 4-Bromofluorobenzene	101 ✓			80.0-120		06/29/2017 01:29	WG993152

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Jc
9/25/17

PES Environmental, Inc.- WA

Sample Delivery Group: L917742
Samples Received: 06/22/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



MW128-062117 L917742-01 GW

Collected by Shannon McKernan
 Collected date/time 06/21/17 12:25
 Received date/time 06/22/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG993343	1	06/28/17 19:21	06/28/17 19:21	MCG
Wet Chemistry by Method 9056A	WG991886	1	06/22/17 21:06	06/22/17 21:06	DR
Wet Chemistry by Method 9060A	WG992872	1	06/26/17 19:04	06/26/17 19:04	SJM
Metals (ICPMS) by Method 6020A	WG993124	1	06/28/17 09:01	06/28/17 13:12	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG992015	1	06/23/17 12:17	06/23/17 12:17	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG992377	25	06/23/17 14:24	06/23/17 14:24	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/27/17 16:36	06/27/17 16:36	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG993152	1	06/29/17 01:12	06/29/17 01:12	JHH

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

SMW-3-062117 L917742-04 GW

Collected by Shannon McKernan
 Collected date/time 06/21/17 14:55
 Received date/time 06/22/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG995407	1	07/04/17 07:58	07/04/17 07:58	JHH

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Collected date/time: 06/21/17 12:25

L917742

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	1050000		2710	20000	1	06/28/2017 19:21	WG993343

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	24600		51.9	1000	1	06/22/2017 21:06	WG991886
Nitrate	U		22.7	100	1	06/22/2017 21:06	WG991886
Sulfate	U		77.4	5000	1	06/22/2017 21:06	WG991886

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	7810		102	1000	1	06/26/2017 19:04	WG992872

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	23000		15.0	100	1	06/28/2017 13:12	WG993124
Manganese	704		0.250	5.00	1	06/28/2017 13:12	WG993124

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	19600		7.18	17.0	25	06/23/2017 14:24	WG992377
Ethane	33.4		0.296	1.29	1	06/23/2017 12:17	WG992015
Ethene	45.1		0.422	1.27	1	06/23/2017 12:17	WG992015

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.07	<u>J</u>	1.05	25.0	1	06/27/2017 16:36	WG993152
Acrylonitrile	U	<u>JO J4</u>	0.873	5.00	1	06/27/2017 16:36	WG993152
Benzene	3.84		0.0896	0.500	1	06/29/2017 01:12	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 16:36	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 16:36	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 16:36	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 16:36	WG993152
Bromomethane	U	<u>JO</u>	0.157	2.50	1	06/27/2017 16:36	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 16:36	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 16:36	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 16:36	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 16:36	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 16:36	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 16:36	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 16:36	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 16:36	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 16:36	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 16:36	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 16:36	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 16:36	WG993152
1,2-Dibromo-3-Chloropropane	U	<u>JO</u>	1.325	2.50	1	06/27/2017 16:36	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 16:36	WG993152
Dibromomethane	U	<u>JO</u>	0.117	0.500	1	06/27/2017 16:36	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 16:36	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 16:36	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 16:36	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 16:36	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 16:36	WG993152
1,2-Dichloroethane	U	JO	0.108	0.500	1	06/27/2017 16:36	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 16:36	WG993152
cis-1,2-Dichloroethene	109		0.0933	0.500	1	06/27/2017 16:36	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 16:36	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 16:36	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 16:36	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 16:36	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 16:36	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 16:36	WG993152
trans-1,4-Dichloro-2-butene	U	JO	0.257	5.00	1	06/27/2017 16:36	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 16:36	WG993152
Di-isopropyl ether	U	JO	0.0924	0.500	1	06/27/2017 16:36	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 16:36	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 16:36	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 16:36	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 16:36	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 16:36	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 16:36	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 16:36	WG993152
2-Butanone (MEK)	U	JO	1.28	5.00	1	06/27/2017 16:36	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 16:36	WG993152
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 16:36	WG993152
Methyl tert-butyl ether	U	JO	0.102	0.500	1	06/27/2017 16:36	WG993152
Naphthalene	U	JO	0.174	2.50	1	06/27/2017 16:36	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 16:36	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 16:36	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 16:36	WG993152
1,1,2,2-Tetrachloroethane	U	JO	0.130	0.500	1	06/27/2017 16:36	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 16:36	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 16:36	WG993152
Toluene	0.541		0.412	0.500	1	06/29/2017 01:12	WG993152
1,2,3-Trichlorobenzene	U	JO	0.164	0.500	1	06/27/2017 16:36	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 16:36	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 16:36	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 16:36	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 16:36	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 16:36	WG993152
1,2,3-Trichloropropane	U	JO J4	0.247	2.50	1	06/27/2017 16:36	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 16:36	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 16:36	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 16:36	WG993152
Vinyl acetate	U	JO	0.645	5.00	1	06/27/2017 16:36	WG993152
Vinyl chloride	195		0.118	0.500	1	06/27/2017 16:36	WG993152
Xylenes, Total	U		0.316	1.50	1	06/29/2017 01:12	WG993152
(S) Toluene-d8	111			80.0-120		06/27/2017 16:36	WG993152
(S) Toluene-d8	110			80.0-120		06/29/2017 01:12	WG993152
(S) Dibromofluoromethane	99.8			76.0-123		06/27/2017 16:36	WG993152
(S) Dibromofluoromethane	103			76.0-123		06/29/2017 01:12	WG993152
(S) 4-Bromofluorobenzene	104			80.0-120		06/29/2017 01:12	WG993152
(S) 4-Bromofluorobenzene	99.3			80.0-120		06/27/2017 16:36	WG993152

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/04/2017 07:58	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 07:58	WG995407
Benzene	U		0.0896	0.500	1	07/04/2017 07:58	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 07:58	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 07:58	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 07:58	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 07:58	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 07:58	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 07:58	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 07:58	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 07:58	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 07:58	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 07:58	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 07:58	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 07:58	WG995407
Chloroethane	U		0.141	2.50	1	07/04/2017 07:58	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 07:58	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 07:58	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 07:58	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 07:58	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 07:58	WG995407
1,2-Dibromoethane	U	JO J4	0.193	0.500	1	07/04/2017 07:58	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 07:58	WG995407
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 07:58	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 07:58	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 07:58	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 07:58	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 07:58	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 07:58	WG995407
1,1-Dichloroethene	U		0.188	0.500	1	07/04/2017 07:58	WG995407
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/04/2017 07:58	WG995407
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/04/2017 07:58	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 07:58	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 07:58	WG995407
1,3-Dichloropropane	U	JO J4	0.147	1.00	1	07/04/2017 07:58	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 07:58	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 07:58	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 07:58	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 07:58	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 07:58	WG995407
Ethylbenzene	U	JO J4	0.158	0.500	1	07/04/2017 07:58	WG995407
Hexachloro-1,3-butadiene	U	JO	0.157	1.00	1	07/04/2017 07:58	WG995407
2-Hexanone	U	JO	0.757	5.00	1	07/04/2017 07:58	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 07:58	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 07:58	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 07:58	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 07:58	WG995407
2-Butanone (MEK)	U	JO	1.28	5.00	1	07/04/2017 07:58	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 07:58	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 07:58	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 07:58	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 07:58	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 07:58	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 07:58	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 07:58	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 07:58	WG995407

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 07:58	WG995407
Tetrachloroethene	U	<u>JO</u>	0.199	0.500	1	07/04/2017 07:58	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 07:58	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 07:58	WG995407
1,2,4-Trichlorobenzene	U	<u>JO</u>	0.355	0.500	1	07/04/2017 07:58	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 07:58	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 07:58	WG995407
Trichloroethene	U		0.153	0.500	1	07/04/2017 07:58	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 07:58	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 07:58	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 07:58	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 07:58	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 07:58	WG995407
Vinyl acetate	U	<u>JO J4</u>	0.645	5.00	1	07/04/2017 07:58	WG995407
Vinyl chloride	U		0.118	0.500	1	07/04/2017 07:58	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 07:58	WG995407
(S) Toluene-d8	102			80.0-120		07/04/2017 07:58	WG995407
(S) Dibromofluoromethane	114			76.0-123		07/04/2017 07:58	WG995407
(S) 4-Bromofluorobenzene	110			80.0-120		07/04/2017 07:58	WG995407

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3229683-3 06/28/17 17:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3500	J	2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L917713-01 Original Sample (OS) • Duplicate (DUP)

(OS) L917713-01 06/29/17 07:47 • (DUP) R3229683-7 06/29/17 07:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	89100	85000	1	5.00		20

L917760-01 Original Sample (OS) • Duplicate (DUP)

(OS) L917760-01 06/28/17 20:22 • (DUP) R3229683-6 06/28/17 20:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	264000	265000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229683-4 06/28/17 18:52 • (LCSD) R3229683-5 06/28/17 20:06

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	105000	108000	105	108	85.0-115			3.00	20



Method Blank (MB)

(MB) R3228120-1 06/22/17 06:25

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	67.1	J	51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L917718-02 Original Sample (OS) • Duplicate (DUP)

(OS) L917718-02 06/22/17 13:39 • (DUP) R3228120-4 06/22/17 13:54

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	8700	8600	1	1		15
Nitrate	1680	1720	1	3		15
Sulfate	79300	79300	1	0		15

L917757-02 Original Sample (OS) • Duplicate (DUP)

(OS) L917757-02 06/22/17 16:53 • (DUP) R3228120-6 06/22/17 17:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	16400	16400	1	1		15
Nitrate	ND	0.000	1	0		15
Sulfate	36700	36700	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228120-2 06/22/17 06:40 • (LCSD) R3228120-3 06/22/17 06:55

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39300	39300	98	98	80-120			0	15
Nitrate	8000	8060	8050	101	101	80-120			0	15
Sulfate	40000	39400	39400	99	98	80-120			0	15

L917718-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L917718-04 06/22/17 14:24 • (MS) R3228120-5 06/22/17 14:39

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	6280	54600	97	1	80-120	
Nitrate	5000	237	5000	95	1	80-120	



[L917742-01](#)

L917766-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917766-05 06/22/17 18:52 • (MS) R3228120-7 06/22/17 19:07 • (MSD) R3228120-8 06/22/17 19:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	2830	51800	52000	98	98	1	80-120			0	15
Nitrate	5000	U	4840	4850	97	97	1	80-120			0	15
Sulfate	50000	30100	77700	77900	95	96	1	80-120			0	15

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3228925-1 06/26/17 10:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L917515-07 Original Sample (OS) • Duplicate (DUP)

(OS) L917515-07 06/26/17 11:54 • (DUP) R3228925-3 06/26/17 12:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	458	460	1	0	J	20

L917766-04 Original Sample (OS) • Duplicate (DUP)

(OS) L917766-04 06/26/17 20:17 • (DUP) R3228925-7 06/26/17 20:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	863	869	1	1	J	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228925-2 06/26/17 11:38 • (LCSD) R3228925-4 06/26/17 13:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	70500	72800	94	97	85-115			3	20



Method Blank (MB)

(MB) R3229499-1 06/28/17 11:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229499-2 06/28/17 12:03 • (LCSD) R3229499-3 06/28/17 12:06

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Iron	5000	5100	5150	102	103	80-120			1	20
Manganese	50.0	46.0	46.4	92	93	80-120			1	20

5 Sr

6 Qc

L917294-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917294-12 06/28/17 12:10 • (MS) R3229499-5 06/28/17 12:17 • (MSD) R3229499-6 06/28/17 12:21

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Iron	5000	57.6	5120	5080	101	100	1	75-125			1	20
Manganese	50.0	3010	3060	3040	118	67	1	75-125		V	1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3228217-1 06/23/17 11:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

L917718-06 Original Sample (OS) • Duplicate (DUP)

(OS) L917718-06 06/23/17 12:15 • (DUP) R3228217-2 06/23/17 12:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

5 Sr

6 Qc

L917785-11 Original Sample (OS) • Duplicate (DUP)

(OS) L917785-11 06/23/17 12:30 • (DUP) R3228217-3 06/23/17 12:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228217-4 06/23/17 12:59 • (LCSD) R3228217-5 06/23/17 13:03

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ethane	129	123	122	95.1	95.0	70.0-130			0.130	20
Ethene	127	117	116	92.3	91.6	70.0-130			0.670	20



Method Blank (MB)

(MB) R3228294-1 06/23/17 14:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methane	1.77		0.287	0.678

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L917851-02 Original Sample (OS) • Duplicate (DUP)

(OS) L917851-02 06/23/17 14:35 • (DUP) R3228294-2 06/23/17 15:01

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	3570	3460	5	2.85		20

7 Gl

8 Al

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228294-3 06/23/17 15:11 • (LCSD) R3228294-4 06/23/17 15:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	67.8	74.3	68.0	110	100	70.0-130			8.91	20

9 Sc



Method Blank (MB)

(MB) R3229094-3 06/27/17 12:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3229094-3 06/27/17 12:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	112			80.0-120
(S) Dibromofluoromethane	99.5			76.0-123
(S) 4-Bromofluorobenzene	98.0			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229094-1 06/27/17 10:55 • (LCSD) R3229094-2 06/27/17 11:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	104	103	83.6	82.1	10.0-160			1.74	23
Acrylonitrile	125	80.1	73.8	64.1	59.1	60.0-142	J4	J4	8.18	20
Benzene	25.0	22.8	23.3	91.2	93.1	69.0-123			2.11	20
Bromobenzene	25.0	23.5	23.3	94.0	93.2	79.0-120			0.800	20
Bromodichloromethane	25.0	21.2	21.9	84.8	87.5	76.0-120			3.17	20
Bromochloromethane	25.0	22.1	21.9	88.4	87.8	76.0-122			0.740	20
Bromoform	25.0	20.5	19.8	82.0	79.2	67.0-132			3.48	20
Bromomethane	25.0	16.6	18.9	66.4	75.6	18.0-160			13.0	20
n-Butylbenzene	25.0	25.3	26.0	101	104	72.0-126			2.75	20
sec-Butylbenzene	25.0	24.9	25.2	99.6	101	74.0-121			1.15	20
tert-Butylbenzene	25.0	24.6	24.9	98.3	99.6	75.0-122			1.24	20
Carbon disulfide	25.0	25.1	26.0	101	104	55.0-127			3.48	20
Carbon tetrachloride	25.0	20.4	21.6	81.7	86.4	63.0-122			5.61	20
Chlorobenzene	25.0	25.7	26.0	103	104	79.0-121			1.14	20
Chlorodibromomethane	25.0	23.5	22.8	94.1	91.1	75.0-125			3.28	20
Chloroethane	25.0	21.6	23.0	86.4	91.9	47.0-152			6.13	20
Chloroform	25.0	20.9	21.3	83.7	85.3	72.0-121			1.97	20
Chloromethane	25.0	19.9	20.9	79.6	83.5	48.0-139			4.73	20
2-Chlorotoluene	25.0	24.4	24.8	97.7	99.3	74.0-122			1.55	20
4-Chlorotoluene	25.0	25.1	24.9	100	99.6	79.0-120			0.800	20
1,2-Dibromo-3-Chloropropane	25.0	16.8	16.0	67.3	64.1	64.0-127			4.86	20
1,2-Dibromoethane	25.0	21.6	21.4	86.5	85.7	77.0-123			0.980	20
Dibromomethane	25.0	19.9	20.4	79.4	81.8	78.0-120			2.93	20
1,2-Dichlorobenzene	25.0	25.2	25.3	101	101	80.0-120			0.450	20
1,3-Dichlorobenzene	25.0	25.6	25.2	103	101	72.0-123			1.55	20
1,4-Dichlorobenzene	25.0	25.3	25.2	101	101	77.0-120			0.310	20
Dichlorodifluoromethane	25.0	21.2	22.1	84.7	88.5	49.0-155			4.50	20
1,1-Dichloroethane	25.0	21.7	22.1	86.9	88.5	70.0-126			1.73	20
1,2-Dichloroethane	25.0	19.3	19.3	77.2	77.3	67.0-126			0.110	20
1,1-Dichloroethene	25.0	24.9	26.5	99.5	106	64.0-129			6.29	20
cis-1,2-Dichloroethene	25.0	22.1	22.6	88.5	90.4	73.0-120			2.17	20
trans-1,2-Dichloroethene	25.0	22.6	23.3	90.5	93.2	71.0-121			2.89	20
1,2-Dichloropropane	25.0	22.4	22.8	89.6	91.2	75.0-125			1.76	20
1,1-Dichloropropene	25.0	22.3	22.9	89.3	91.7	71.0-129			2.67	20
1,3-Dichloropropane	25.0	22.0	21.8	87.8	87.3	80.0-121			0.540	20
cis-1,3-Dichloropropene	25.0	23.5	23.6	93.9	94.3	79.0-123			0.440	20
trans-1,3-Dichloropropene	25.0	22.1	21.8	88.6	87.4	74.0-127			1.35	20
trans-1,4-Dichloro-2-butene	25.0	15.3	13.9	61.3	55.5	55.0-134			9.91	20
2,2-Dichloropropane	25.0	20.7	22.1	82.9	88.3	60.0-125			6.28	20
Di-isopropyl ether	25.0	19.3	19.4	77.3	77.4	59.0-133			0.190	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229094-1 06/27/17 10:55 • (LCSD) R3229094-2 06/27/17 11:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	26.3	27.0	105	108	77.0-120			2.44	20
Hexachloro-1,3-butadiene	25.0	21.8	23.7	87.3	94.9	64.0-131			8.38	20
2-Hexanone	125	106	106	84.5	84.8	58.0-147			0.330	20
n-Hexane	25.0	21.7	22.9	86.6	91.7	56.0-124			5.72	20
Iodomethane	125	112	119	89.7	95.0	57.0-140			5.82	20
Isopropylbenzene	25.0	24.9	25.3	99.6	101	75.0-120			1.78	20
p-Isopropyltoluene	25.0	24.9	25.4	99.6	102	74.0-126			1.93	20
2-Butanone (MEK)	125	80.7	79.5	64.5	63.6	37.0-158			1.44	20
Methylene Chloride	25.0	22.8	22.9	91.1	91.8	66.0-121			0.710	20
4-Methyl-2-pentanone (MIBK)	125	83.9	81.4	67.1	65.1	59.0-143			2.94	20
Methyl tert-butyl ether	25.0	18.2	17.9	72.7	71.5	64.0-123			1.68	20
Naphthalene	25.0	16.8	16.2	67.2	65.0	62.0-128			3.40	20
n-Propylbenzene	25.0	25.0	25.3	100	101	79.0-120			1.10	20
Styrene	25.0	25.4	25.5	102	102	78.0-124			0.340	20
1,1,1,2-Tetrachloroethane	25.0	23.9	24.1	95.5	96.4	75.0-122			0.940	20
1,1,2,2-Tetrachloroethane	25.0	19.3	18.1	77.1	72.3	71.0-122			6.51	20
1,1,2-Trichlorotrifluoroethane	25.0	24.6	25.7	98.2	103	61.0-136			4.46	20
Tetrachloroethene	25.0	26.8	27.3	107	109	70.0-127			1.89	20
Toluene	25.0	25.8	26.5	103	106	77.0-120			2.79	20
1,2,3-Trichlorobenzene	25.0	19.2	18.8	76.9	75.0	61.0-133			2.43	20
1,2,4-Trichlorobenzene	25.0	23.2	23.2	93.0	92.8	69.0-129			0.220	20
1,1,1-Trichloroethane	25.0	22.4	22.8	89.5	91.1	68.0-122			1.71	20
1,1,2-Trichloroethane	25.0	22.2	21.9	88.7	87.4	78.0-120			1.45	20
Trichloroethene	25.0	23.5	24.2	94.0	96.8	78.0-120			3.01	20
Trichlorofluoromethane	25.0	22.3	23.4	89.4	93.8	56.0-137			4.82	20
1,2,3-Trichloropropane	25.0	17.6	17.1	70.4	68.4	72.0-124	<u>J4</u>	<u>J4</u>	2.92	20
1,2,4-Trimethylbenzene	25.0	24.9	25.2	99.6	101	75.0-120			1.22	20
1,2,3-Trimethylbenzene	25.0	25.4	25.2	102	101	75.0-120			0.700	20
1,3,5-Trimethylbenzene	25.0	24.7	25.1	98.6	101	75.0-120			1.93	20
Vinyl acetate	125	84.3	80.9	67.4	64.7	46.0-160			4.15	20
Vinyl chloride	25.0	21.5	23.2	86.2	92.7	64.0-133			7.26	20
Xylenes, Total	75.0	76.8	79.3	102	106	77.0-120			3.20	20
(S) Toluene-d8				113	114	80.0-120				
(S) Dibromofluoromethane				94.6	95.2	76.0-123				
(S) 4-Bromofluorobenzene				99.1	98.3	80.0-120				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230933-3 07/04/17 07:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
2-Chlorotoluene	U		0.111	0.500
Chloroform	U		0.0860	0.500
4-Chlorotoluene	U		0.0972	0.500
Chloromethane	U		0.153	1.25
Dibromomethane	U		0.117	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,1-Dichloropropene	U		0.128	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3230933-3 07/04/17 07:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
trans-1,3-Dichloropropene	U		0.222	0.500
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Ethylbenzene	U		0.158	0.500
2-Hexanone	U		0.757	5.00
Isopropylbenzene	U		0.126	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
1,2,3-Trichloropropane	U		0.247	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
Tetrachloroethene	U		0.199	0.500
Vinyl acetate	U		0.645	5.00
Toluene	U		0.412	0.500
Xylenes, Total	U		0.316	1.50
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	116			76.0-123
(S) 4-Bromofluorobenzene	107			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230933-1 07/04/17 05:05 • (LCSD) R3230933-2 07/04/17 05:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	125	140	144	112	115	60.0-142			2.36	20
Bromobenzene	25.0	22.5	22.0	89.9	88.1	79.0-120			1.98	20
2-Chlorotoluene	25.0	22.6	22.5	90.6	90.0	74.0-122			0.610	20
4-Chlorotoluene	25.0	22.0	22.0	88.1	88.1	79.0-120			0.0500	20
Dibromomethane	25.0	24.3	24.5	97.2	97.9	78.0-120			0.700	20
1,1-Dichloropropene	25.0	25.3	25.6	101	102	71.0-129			1.32	20
1,3-Dichloropropane	25.0	19.2	19.4	76.8	77.4	80.0-121	J4	J4	0.790	20
Acetone	125	125	143	99.8	114	10.0-160			13.5	23
Benzene	25.0	25.4	25.8	102	103	69.0-123			1.30	20
trans-1,4-Dichloro-2-butene	25.0	21.8	21.5	87.0	86.0	55.0-134			1.22	20
2,2-Dichloropropane	25.0	23.5	24.4	94.1	97.7	60.0-125			3.74	20
Bromodichloromethane	25.0	24.1	23.8	96.4	95.2	76.0-120			1.32	20
Di-isopropyl ether	25.0	27.3	27.8	109	111	59.0-133			1.71	20
Bromochloromethane	25.0	25.1	25.4	100	102	76.0-122			1.39	20
Bromoform	25.0	25.7	25.4	103	102	67.0-132			1.02	20
Hexachloro-1,3-butadiene	25.0	19.1	20.0	76.3	80.2	64.0-131			4.97	20
Bromomethane	25.0	29.0	28.2	116	113	18.0-160			2.74	20
n-Hexane	25.0	24.6	24.2	98.4	96.8	56.0-124			1.67	20
Iodomethane	125	125	128	100	103	57.0-140			2.47	20
n-Butylbenzene	25.0	21.6	22.0	86.6	88.0	72.0-126			1.68	20
sec-Butylbenzene	25.0	22.2	22.5	88.9	90.1	74.0-121			1.34	20
tert-Butylbenzene	25.0	22.0	22.1	87.8	88.5	75.0-122			0.810	20
Carbon disulfide	25.0	27.7	28.6	111	115	55.0-127			3.48	20
Carbon tetrachloride	25.0	24.5	24.7	98.1	98.7	63.0-122			0.650	20
Chlorobenzene	25.0	20.0	20.9	80.0	83.6	79.0-121			4.36	20
Chlorodibromomethane	25.0	20.6	21.1	82.5	84.2	75.0-125			2.09	20
Chloroethane	25.0	23.6	23.9	94.3	95.5	47.0-152			1.26	20
Chloroform	25.0	25.6	26.1	102	104	72.0-121			1.95	20
1,1,1,2-Tetrachloroethane	25.0	21.9	23.2	87.8	92.9	75.0-122			5.65	20
Chloromethane	25.0	22.5	23.2	90.1	92.9	48.0-139			3.07	20
1,2-Dibromo-3-Chloropropane	25.0	23.4	25.0	93.5	100	64.0-127			6.69	20
1,2-Dibromoethane	25.0	18.6	19.2	74.4	76.8	77.0-123	J4	J4	3.23	20
1,2-Dichlorobenzene	25.0	21.7	21.8	86.8	87.4	80.0-120			0.630	20
1,3-Dichlorobenzene	25.0	21.6	21.8	86.3	87.2	72.0-123			1.04	20
1,4-Dichlorobenzene	25.0	21.4	21.6	85.5	86.4	77.0-120			1.03	20
Dichlorodifluoromethane	25.0	23.8	23.5	95.2	93.9	49.0-155			1.38	20
1,2,3-Trichloropropane	25.0	24.3	23.6	97.1	94.5	72.0-124			2.68	20
1,1-Dichloroethane	25.0	26.8	27.5	107	110	70.0-126			2.70	20
1,2,3-Trimethylbenzene	25.0	22.2	22.6	88.8	90.3	75.0-120			1.65	20
1,2-Dichloroethane	25.0	25.5	25.8	102	103	67.0-126			1.14	20

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230933-1 07/04/17 05:05 • (LCSD) R3230933-2 07/04/17 05:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	25.0	25.1	26.0	100	104	64.0-129			3.40	20
cis-1,2-Dichloroethene	25.0	25.1	25.7	100	103	73.0-120			2.21	20
Vinyl acetate	125	51.9	54.9	41.5	43.9	46.0-160	J4	J4	5.55	20
trans-1,2-Dichloroethene	25.0	24.9	25.7	99.5	103	71.0-121			3.33	20
1,2-Dichloropropane	25.0	25.4	25.5	101	102	75.0-125			0.550	20
Xylenes, Total	75.0	61.7	64.8	82.3	86.4	77.0-120			4.90	20
cis-1,3-Dichloropropene	25.0	21.3	22.2	85.3	88.7	79.0-123			3.96	20
trans-1,3-Dichloropropene	25.0	21.4	21.6	85.8	86.4	74.0-127			0.710	20
Ethylbenzene	25.0	19.2	20.1	76.7	80.5	77.0-120	J4		4.77	20
2-Hexanone	125	96.5	101	77.2	80.5	58.0-147			4.16	20
Isopropylbenzene	25.0	21.5	21.8	85.9	87.1	75.0-120			1.43	20
p-Isopropyltoluene	25.0	21.7	21.9	86.6	87.5	74.0-126			0.970	20
2-Butanone (MEK)	125	92.4	97.5	73.9	78.0	37.0-158			5.34	20
Methylene Chloride	25.0	25.7	26.1	103	105	66.0-121			1.51	20
4-Methyl-2-pentanone (MIBK)	125	106	110	84.8	88.0	59.0-143			3.77	20
Methyl tert-butyl ether	25.0	26.5	26.5	106	106	64.0-123			0.210	20
Naphthalene	25.0	21.1	22.2	84.3	88.9	62.0-128			5.32	20
n-Propylbenzene	25.0	21.8	21.9	87.4	87.4	79.0-120			0.0200	20
Styrene	25.0	22.1	21.9	88.4	87.6	78.0-124			0.890	20
1,1,2,2-Tetrachloroethane	25.0	21.6	21.5	86.4	86.2	71.0-122			0.280	20
Tetrachloroethene	25.0	19.3	20.4	77.0	81.4	70.0-127			5.53	20
Toluene	25.0	20.6	21.4	82.5	85.7	77.0-120			3.87	20
1,1,2-Trichlorotrifluoroethane	25.0	26.7	26.9	107	107	61.0-136			0.700	20
1,2,3-Trichlorobenzene	25.0	19.7	20.8	78.7	83.1	61.0-133			5.47	20
1,2,4-Trichlorobenzene	25.0	18.7	20.0	74.8	79.9	69.0-129			6.51	20
1,1,1-Trichloroethane	25.0	25.1	25.5	100	102	68.0-122			1.43	20
1,1,2-Trichloroethane	25.0	20.4	20.0	81.5	79.9	78.0-120			2.09	20
Trichloroethene	25.0	24.9	24.9	99.7	99.4	78.0-120			0.280	20
Trichlorofluoromethane	25.0	23.4	23.8	93.5	95.3	56.0-137			1.95	20
1,2,4-Trimethylbenzene	25.0	22.7	22.9	90.7	91.7	75.0-120			1.10	20
1,3,5-Trimethylbenzene	25.0	22.2	22.4	88.6	89.5	75.0-120			1.02	20
Vinyl chloride	25.0	24.2	24.8	96.8	99.1	64.0-133			2.32	20
(S) Toluene-d8				100	104	80.0-120				
(S) Dibromofluoromethane				115	116	76.0-123				
(S) 4-Bromofluorobenzene				109	107	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J4	The associated batch QC was outside the established quality control range for accuracy.
V	The sample concentration is too high to evaluate accurate spike recoveries.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

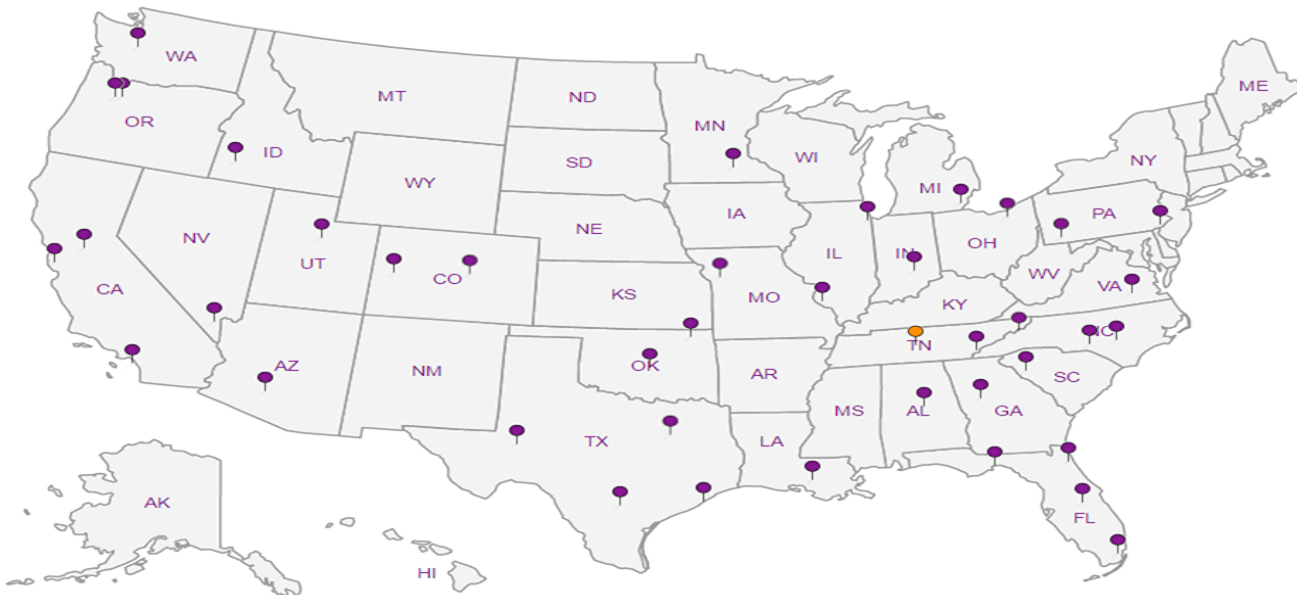
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

8
Al

9
Sc

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:

Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page of



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



Report to:
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project
Description: **American Linen Supply**

City/State
Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON McKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

Immediately
Packed on Ice N Y

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	* Alk, Cl, NO3, SO4 250ml/HDPE-NoPres	NWTPHGX 40ml/Amb HCl	TOC 250ml/Amb-HCl	Total Fe Mn 6020 250ml/HDPE-HNO3	low level 8260C 40ml/Amb-HCl	low level RSK175 40ml/Amb-HCl
MW129-062117	GRAB	GW	65	6/21/17	1225	9	X	X	X	X	X	X
SMW-3-062117	↓	GW	14	↓	1455	4	X	X	X	X	X	X
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

L# **91772**
D065
Acctnum: **PESENVSWA**
Template: **T124201**
Prelogin: **P603202**
TSR: **110 - Brian Ford**
PB: **5-31-17**
Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	01
	-04

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NO3 nitrate has a 48 hour holding time

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking # **7372 1955 0650**

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/21/17	Time: 1545	Received by: (Signature)	Trip Blank Received: Yes () No () HCL/MeOH TBH
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.5° C Bottles Received: 13
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 6-22-17 Time: 0845 Hold: Condition: NO / OK

Matt Shacklock

ESC Lab Sciences
Non-Conformance Form

Login #917742	Client: PESENVSWA	Date:6/22/17	Evaluated by:Matt S
----------------------	--------------------------	---------------------	----------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time <input checked="" type="checkbox"/>	Login Clarification Needed	
Improper temperature	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

Login Comments: for SMW-3-062117 - we received 4 vials HCL and client is requesting ALK, CL, NO3, SO4

Client informed by:	<input type="checkbox"/> Call	<input type="checkbox"/> Email	<input checked="" type="checkbox"/> Voice Mail	Date:06/22/17	Time:1500
TSR Initials:bjf	Client Contact: Bill Haldeman				

Login Instructions:

Log SMW-3-062117 for V8260LLC only.

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
FAX: 615-758-5859
Fax: 615-758-5859



Report to:
Bill Haldeman

Email To: bhaldean@pesenv.com

Project Description: **American Linen Supply**

City/State Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERIAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)
Same Day _____ Five Day _____
Next Day _____ 3 Day (Rad Only) _____
Two Day _____ 10 Day (Rad Only) _____
Three Day _____

Quote #

Date Results Needed

Immediately Packed on Ice: **N**

*Alk,Cl,NO3,SO4 250mlHDPE-NoPres
 NWT PHGX 40mlAmb HCl
 TOC 250mlAmb-HCl
 Total Fe Mn 6020 250mlHDPE-HNO3
 low level B260C 40mlAmb-HCl
 low level RSK175 40mlAmb-HCl

L# **9177A**
D065

Acctnum: **PESENVSWA**

Template: **T124201**

Prelogin: **P603202**

TSR: **110 - Brian Ford**

PB: **5-31-17**

Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	Analysis	Container	Preservative	Remarks	Sample # (lab only)
MW128-062117	GRAB	GW	65	6/2/17	1225	9	X	X	X		01
SMW-3-062117	↓	GW	14	↓	1455	4	X	X	X		
		GW									
		GW									
		GW									
		GW									
		GW									
		GW									
		GW									
		GW									

[Handwritten notes: GRAB, MARK]

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other _____

Remarks: *NO3 nitrate has a 48 hour holding time

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
UPS _____ FedEx _____ Courier _____

Tracking # **7372 1955 0650**

Sample Receipt Checklist
 CCC Seal Present/Intact: Y N
 CCC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 VOA Zero Headpace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/2/17	Time: 1545	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: Yes (No) HEP/MeOH TAB	Bottles Received: 2.5P T01 13	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 6-22-17	Time: 0845	Hold:
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date:	Time:	Condition: OK / OK

MEMORANDUM

TO: Project File **DATE:** July 25, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 21, 2017- Groundwater Samples
LAB: ESC Lab ID L917742

Two (2) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 21, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L917742. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L917742 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.5 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Note that ESC assigned L917742-04 to sample SMW-3-062117 though only two samples were submitted with this chain of custody. No action is taken other than to note this.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

The sample was analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

The sample was analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

The sample was analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for acrylonitrile, bromomethane, chloromethane, 1,2-dibromo-3-chloropropane, dibromomethane, 1,2-dichloroethane, trans-1,4-dichloro-2-butene, di-isopropyl ether, 2-Butanone (MEK), 4-methyl-2-pentanone (MIBK), methyl tert-butyl ether, naphthalene, 1,1,2,2-tetrachloroethane, 1,2,3-trichlorobenzene, 1,2,3-trichloropropane, and vinyl acetate were identified by the laboratory sample with analytical batch WG993152 (analyzed on June 27, 2017). Sample MW128-062117 results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Sample MW128-062117 results for above mentioned compounds are estimated and qualified (UJ).**
- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for 1, 2-dibromomethane, 1,3-dichloropropane, ethylbenzene, hexachloro-1,3-butadiene, 2-hexanone, 2-butanone (MEK), tetrachloroethene, 1,2,4-trichlorobenzene, and vinyl acetate were identified by the laboratory for all associated samples with analytical batch WG995407 (analyzed on July 4, 2017). Sample SMW-3-062117 results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Sample SMW-3-062117 results for above mentioned compounds are estimated and qualified (UJ).**

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with each analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs).

Method RSK-175:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level of methane was measured in the method blank associated with analytical batch WG992377 (date of analysis is June 23, 2017) between the RDL and method detection limit (MDL). No action was necessary as associated methane sample result is significantly greater than the detection in the blank.

USEPA Method 6020:

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level of alkalinity was measured in the method blank associated with analytical batch WG993343 (date of analysis is June 28, 2017) between the RDL and MDL. No action was necessary as associated alkalinity sample result is significantly greater than the detection in the blank.
- A low level of chloride was detected in the method blank associated with analytical batch WG991886 (date of analysis is June 22, 2017) between the RDL and MDL. No action was necessary as associated chloride sample result is significantly greater than the detection in the blank.

Trip Blank Results

USEPA Method 8260C:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Method RSK-175:

Samples were analyzed in multiple analytical batches. Laboratory duplicate analyses were performed on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: Laboratory duplicate samples were performed on non-client samples within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

EPA Method 9060A: A laboratory duplicate sample was performed on non-client samples within the analytical batch. The primary/duplicate RPDs for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSDs, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following exceptions:

- LCS/LCSD (Batch WG993152) spike compound (acrylonitrile) percent recovery is slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken on this basis as LCS percent recovery result is within criteria. LCS/LCSD (Batch WG993152) spike compound (1,2,3-trichloropropane) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). **Spike compound, 1,2,3-trichloropropane, was not detected in Sample MW128-062117, and is estimated (UJ) due to low LCS/LCSD recoveries.**
- LCS/LCSD (Batch WG995407) spike compounds (1,3-dichloropropane, 1,2-dibromoethane, and vinyl acetate) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). **Spike compound, 1,3-dichloropropane, 1,2-dibromoethane, and vinyl acetate are not detected in sample SMW-3-062117, and these compounds are estimated (UJ) due to low LCS/LCSD recoveries.**
- LCS (Batch WG995407) spike compound (ethylbenzene) percent recovery is slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken on this basis as LCSD percent recovery result is within criteria.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Method RSK-175:

MS/MSD analyses were not performed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

USEPA Method 6020:

MS/MSD analysis was performed on a non-client sample within the analytical batch. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample with the following discussion:

- Manganese sample amount was greater than four times the spike amount and the MSD was not recovered. No action was taken other than to note this. Refer to LCS/LCSD results for additional information.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS/MSD analyses were performed on non-client samples within the analytical batches. MS and MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

EPA Method 9060A: MS/MSD analyses were not performed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	1050000		2710	20000	1	06/28/2017 19:21	WG993343

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	24600		51.9	1000	1	06/22/2017 21:06	WG991886
Nitrate	U		22.7	100	1	06/22/2017 21:06	WG991886
Sulfate	U		77.4	5000	1	06/22/2017 21:06	WG991886

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	7810		102	1000	1	06/26/2017 19:04	WG992872

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	23000		15.0	100	1	06/28/2017 13:12	WG993124
Manganese	704		0.250	5.00	1	06/28/2017 13:12	WG993124

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	19600		7.18	17.0	25	06/23/2017 14:24	WG992377
Ethane	33.4		0.296	1.29	1	06/23/2017 12:17	WG992015
Ethene	45.1		0.422	1.27	1	06/23/2017 12:17	WG992015

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.07	J	1.05	25.0	1	06/27/2017 16:36	WG993152
Acrylonitrile	U	VJ JO J4	0.873	5.00	1	06/27/2017 16:36	WG993152
Benzene	3.84		0.0896	0.500	1	06/29/2017 01:12	WG993152
Bromobenzene	U		0.133	0.500	1	06/27/2017 16:36	WG993152
Bromodichloromethane	U		0.0800	0.500	1	06/27/2017 16:36	WG993152
Bromochloromethane	U		0.145	0.500	1	06/27/2017 16:36	WG993152
Bromoform	U		0.186	0.500	1	06/27/2017 16:36	WG993152
Bromomethane	U	VJ JO	0.157	2.50	1	06/27/2017 16:36	WG993152
n-Butylbenzene	U		0.143	0.500	1	06/27/2017 16:36	WG993152
sec-Butylbenzene	U		0.134	0.500	1	06/27/2017 16:36	WG993152
tert-Butylbenzene	U		0.183	0.500	1	06/27/2017 16:36	WG993152
Carbon disulfide	U		0.101	0.500	1	06/27/2017 16:36	WG993152
Carbon tetrachloride	U		0.159	0.500	1	06/27/2017 16:36	WG993152
Chlorobenzene	U		0.140	0.500	1	06/27/2017 16:36	WG993152
Chlorodibromomethane	U		0.128	0.500	1	06/27/2017 16:36	WG993152
Chloroethane	U		0.141	2.50	1	06/27/2017 16:36	WG993152
Chloroform	U		0.0860	0.500	1	06/27/2017 16:36	WG993152
Chloromethane	U		0.153	1.25	1	06/27/2017 16:36	WG993152
2-Chlorotoluene	U		0.111	0.500	1	06/27/2017 16:36	WG993152
4-Chlorotoluene	U		0.0972	0.500	1	06/27/2017 16:36	WG993152
1,2-Dibromo-3-Chloropropane	U	VJ JO	0.325	2.50	1	06/27/2017 16:36	WG993152
1,2-Dibromoethane	U		0.193	0.500	1	06/27/2017 16:36	WG993152
Dibromomethane	U	VJ JO	0.117	0.500	1	06/27/2017 16:36	WG993152

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	06/27/2017 16:36	WG993152
1,3-Dichlorobenzene	U		0.130	0.500	1	06/27/2017 16:36	WG993152
1,4-Dichlorobenzene	U		0.121	0.500	1	06/27/2017 16:36	WG993152
Dichlorodifluoromethane	U		0.127	2.50	1	06/27/2017 16:36	WG993152
1,1-Dichloroethane	U		0.114	0.500	1	06/27/2017 16:36	WG993152
1,2-Dichloroethane	U	UJ JO	0.108	0.500	1	06/27/2017 16:36	WG993152
1,1-Dichloroethene	U		0.188	0.500	1	06/27/2017 16:36	WG993152
cis-1,2-Dichloroethene	109		0.0933	0.500	1	06/27/2017 16:36	WG993152
trans-1,2-Dichloroethene	U		0.152	0.500	1	06/27/2017 16:36	WG993152
1,2-Dichloropropane	U		0.190	0.500	1	06/27/2017 16:36	WG993152
1,1-Dichloropropene	U		0.128	0.500	1	06/27/2017 16:36	WG993152
1,3-Dichloropropane	U		0.147	1.00	1	06/27/2017 16:36	WG993152
cis-1,3-Dichloropropene	U		0.0976	0.500	1	06/27/2017 16:36	WG993152
trans-1,3-Dichloropropene	U		0.222	0.500	1	06/27/2017 16:36	WG993152
trans-1,4-Dichloro-2-butene	U	UJ JO	0.257	5.00	1	06/27/2017 16:36	WG993152
2,2-Dichloropropane	U		0.0929	0.500	1	06/27/2017 16:36	WG993152
Di-isopropyl ether	U	UJ JO	0.0924	0.500	1	06/27/2017 16:36	WG993152
Ethylbenzene	U		0.158	0.500	1	06/27/2017 16:36	WG993152
Hexachloro-1,3-butadiene	U		0.157	1.00	1	06/27/2017 16:36	WG993152
2-Hexanone	U		0.757	5.00	1	06/27/2017 16:36	WG993152
n-Hexane	U		0.305	5.00	1	06/27/2017 16:36	WG993152
Iodomethane	U		0.377	10.0	1	06/27/2017 16:36	WG993152
Isopropylbenzene	U		0.126	0.500	1	06/27/2017 16:36	WG993152
p-Isopropyltoluene	U		0.138	0.500	1	06/27/2017 16:36	WG993152
2-Butanone (MEK)	U	UJ JO	1.28	5.00	1	06/27/2017 16:36	WG993152
Methylene Chloride	U		1.07	2.50	1	06/27/2017 16:36	WG993152
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	06/27/2017 16:36	WG993152
Methyl tert-butyl ether	U	UJ JO	0.102	0.500	1	06/27/2017 16:36	WG993152
Naphthalene	U	UJ JO	0.174	2.50	1	06/27/2017 16:36	WG993152
n-Propylbenzene	U		0.162	0.500	1	06/27/2017 16:36	WG993152
Styrene	U		0.117	0.500	1	06/27/2017 16:36	WG993152
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	06/27/2017 16:36	WG993152
1,1,2,2-Tetrachloroethane	U	UJ JO	0.130	0.500	1	06/27/2017 16:36	WG993152
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	06/27/2017 16:36	WG993152
Tetrachloroethene	U		0.199	0.500	1	06/27/2017 16:36	WG993152
Toluene	0.541		0.412	0.500	1	06/29/2017 01:12	WG993152
1,2,3-Trichlorobenzene	U	UJ JO	0.164	0.500	1	06/27/2017 16:36	WG993152
1,2,4-Trichlorobenzene	U		0.355	0.500	1	06/27/2017 16:36	WG993152
1,1,1-Trichloroethane	U		0.0940	0.500	1	06/27/2017 16:36	WG993152
1,1,2-Trichloroethane	U		0.186	0.500	1	06/27/2017 16:36	WG993152
Trichloroethene	U		0.153	0.500	1	06/27/2017 16:36	WG993152
Trichlorofluoromethane	U		0.130	2.50	1	06/27/2017 16:36	WG993152
1,2,3-Trichloropropane	U	UJ JO J4	0.247	2.50	1	06/27/2017 16:36	WG993152
1,2,4-Trimethylbenzene	U		0.123	0.500	1	06/27/2017 16:36	WG993152
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	06/27/2017 16:36	WG993152
1,3,5-Trimethylbenzene	U		0.124	0.500	1	06/27/2017 16:36	WG993152
Vinyl acetate	U	UJ JO	0.645	5.00	1	06/27/2017 16:36	WG993152
Vinyl chloride	195		0.118	0.500	1	06/27/2017 16:36	WG993152
Xylenes, Total	U		0.316	1.50	1	06/29/2017 01:12	WG993152
(S) Toluene-d8	111	✓		80.0-120		06/27/2017 16:36	WG993152
(S) Toluene-d8	110	✓		80.0-120		06/29/2017 01:12	WG993152
(S) Dibromofluoromethane	99.8	✓		76.0-123		06/27/2017 16:36	WG993152
(S) Dibromofluoromethane	103	✓		76.0-123		06/29/2017 01:12	WG993152
(S) 4-Bromofluorobenzene	104	✓		80.0-120		06/29/2017 01:12	WG993152
(S) 4-Bromofluorobenzene	99.3	✓		80.0-120		06/27/2017 16:36	WG993152

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Jc 7/25/17



Collected date/time: 06/21/17 14:55

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	07/04/2017 07:58 <i>-ok</i>	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 07:58	WG995407
Benzene	U		0.0896	0.500	1	07/04/2017 07:58	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 07:58	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 07:58	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 07:58	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 07:58	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 07:58	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 07:58	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 07:58	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 07:58	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 07:58	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 07:58	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 07:58	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 07:58	WG995407
Chloroethane	U		0.141	2.50	1	07/04/2017 07:58	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 07:58	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 07:58	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 07:58	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 07:58	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 07:58	WG995407
1,2-Dibromoethane	U	<i>VJ</i> <u>JO J4</u>	0.193	0.500	1	07/04/2017 07:58	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 07:58	WG995407
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 07:58	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 07:58	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 07:58	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 07:58	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 07:58	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 07:58	WG995407
1,1-Dichloroethene	U		0.188	0.500	1	07/04/2017 07:58	WG995407
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/04/2017 07:58	WG995407
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/04/2017 07:58	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 07:58	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 07:58	WG995407
1,3-Dichloropropane	U	<i>VJ</i> <u>JO J4</u>	0.147	1.00	1	07/04/2017 07:58	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 07:58	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 07:58	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 07:58	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 07:58	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 07:58	WG995407
Ethylbenzene	U	<i>VJ</i> <u>JO J4</u>	0.158	0.500	1	07/04/2017 07:58	WG995407
Hexachloro-1,3-butadiene	U	<i>VJ</i> <u>JO</u>	0.157	1.00	1	07/04/2017 07:58	WG995407
2-Hexanone	U	<i>VJ</i> <u>JO</u>	0.757	5.00	1	07/04/2017 07:58	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 07:58	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 07:58	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 07:58	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 07:58	WG995407
2-Butanone (MEK)	U	<i>VJ</i> <u>JO</u>	1.28	5.00	1	07/04/2017 07:58	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 07:58	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 07:58	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 07:58	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 07:58	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 07:58	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 07:58	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 07:58	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 07:58	WG995407

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 7/25/17

SMW-3-062117

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 06/21/17 14:55

L917742

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 07:58	WG995407
Tetrachloroethene	U	VJ JO	0.199	0.500	1	07/04/2017 07:58	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 07:58	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 07:58	WG995407
1,2,4-Trichlorobenzene	U	VJ JO	0.355	0.500	1	07/04/2017 07:58	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 07:58	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 07:58	WG995407
Trichloroethene	U		0.153	0.500	1	07/04/2017 07:58	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 07:58	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 07:58	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 07:58	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 07:58	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 07:58	WG995407
Vinyl acetate	U	VJ JO J4	0.645	5.00	1	07/04/2017 07:58	WG995407
Vinyl chloride	U		0.118	0.500	1	07/04/2017 07:58	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 07:58	WG995407
(S) Toluene-d8	102			80.0-120		07/04/2017 07:58	WG995407
(S) Dibromofluoromethane	114			76.0-123		07/04/2017 07:58	WG995407
(S) 4-Bromofluorobenzene	110			80.0-120		07/04/2017 07:58	WG995407

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Jc
7/25/17

PES Environmental, Inc.- WA

Sample Delivery Group: L918096
Samples Received: 06/23/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



F5-062217 L918096-01 GW

Collected by Shannon McKernan
Collected date/time 06/22/17 08:35
Received date/time 06/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG992527	1	06/24/17 07:04	06/24/17 07:04	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 14:50	07/02/17 14:50	JHH

1
Cp

2
Tc

3
Ss

F13-062217 L918096-02 GW

Collected by Shannon McKernan
Collected date/time 06/22/17 09:55
Received date/time 06/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG993348	1	06/29/17 02:03	06/29/17 02:03	MCG
Wet Chemistry by Method 9056A	WG992228	1	06/23/17 18:17	06/23/17 18:17	CSU
Wet Chemistry by Method 9060A	WG994361	2	06/30/17 17:29	06/30/17 17:29	CSU
Metals (ICPMS) by Method 6020A	WG993124	1	06/28/17 09:01	06/28/17 13:25	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG992527	1	06/24/17 07:25	06/24/17 07:25	LRL
Volatile Organic Compounds (GC) by Method RSK175	WG992330	1	06/25/17 10:54	06/25/17 10:54	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG992750	5	06/25/17 14:29	06/25/17 14:29	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 15:08	07/02/17 15:08	JHH

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW115-062217 L918096-03 GW

Collected by Shannon McKernan
Collected date/time 06/22/17 12:15
Received date/time 06/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG993348	1	06/29/17 02:10	06/29/17 02:10	MCG
Wet Chemistry by Method 9056A	WG992228	1	06/23/17 18:30	06/23/17 18:30	CSU
Wet Chemistry by Method 9060A	WG993861	1	06/29/17 16:33	06/29/17 16:33	SJM
Metals (ICPMS) by Method 6020A	WG993124	1	06/28/17 09:01	06/28/17 13:28	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG992330	1	06/25/17 10:56	06/25/17 10:56	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG992750	5	06/25/17 14:31	06/25/17 14:31	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 15:26	07/02/17 15:26	JHH

F9-062217 L918096-04 GW

Collected by Shannon McKernan
Collected date/time 06/22/17 14:15
Received date/time 06/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG992527	1	06/24/17 07:46	06/24/17 07:46	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 15:44	07/02/17 15:44	JHH



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/24/2017 07:04	WG992527
(S) a,a,a-Trifluorotoluene(FID)	98.1			77.0-122		06/24/2017 07:04	WG992527

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	37.9		1.05	25.0	1	07/02/2017 14:50	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 14:50	WG994563
Benzene	0.374	J	0.0896	0.500	1	07/02/2017 14:50	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 14:50	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 14:50	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 14:50	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 14:50	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 14:50	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 14:50	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 14:50	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 14:50	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 14:50	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 14:50	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 14:50	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 14:50	WG994563
Chloroethane	2.89		0.141	2.50	1	07/02/2017 14:50	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 14:50	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 14:50	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 14:50	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 14:50	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 14:50	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 14:50	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 14:50	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 14:50	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 14:50	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 14:50	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 14:50	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 14:50	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 14:50	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 14:50	WG994563
cis-1,2-Dichloroethene	10.4		0.0933	0.500	1	07/02/2017 14:50	WG994563
trans-1,2-Dichloroethene	0.485	J	0.152	0.500	1	07/02/2017 14:50	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 14:50	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 14:50	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 14:50	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 14:50	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 14:50	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 14:50	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 14:50	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 14:50	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 14:50	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 14:50	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 14:50	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 14:50	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 14:50	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 14:50	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 14:50	WG994563
2-Butanone (MEK)	41.2		1.28	5.00	1	07/02/2017 14:50	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 14:50	WG994563



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 14:50	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 14:50	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 14:50	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 14:50	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 14:50	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 14:50	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 14:50	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 14:50	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 14:50	WG994563
Toluene	0.708		0.412	0.500	1	07/02/2017 14:50	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 14:50	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 14:50	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 14:50	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 14:50	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 14:50	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 14:50	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 14:50	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 14:50	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 14:50	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 14:50	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 14:50	WG994563
Vinyl chloride	63.9		0.118	0.500	1	07/02/2017 14:50	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 14:50	WG994563
(S) Toluene-d8	107			80.0-120		07/02/2017 14:50	WG994563
(S) Dibromofluoromethane	95.8			76.0-123		07/02/2017 14:50	WG994563
(S) 4-Bromofluorobenzene	101			80.0-120		07/02/2017 14:50	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	484000		2710	20000	1	06/29/2017 02:03	WG993348

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	12600		51.9	1000	1	06/23/2017 18:17	WG992228
Nitrate	U		22.7	100	1	06/23/2017 18:17	WG992228
Sulfate	6130		77.4	5000	1	06/23/2017 18:17	WG992228

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	10900		204	2000	2	06/30/2017 17:29	WG994361

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	29300		15.0	100	1	06/28/2017 13:25	WG993124
Manganese	806		0.250	5.00	1	06/28/2017 13:25	WG993124

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/24/2017 07:25	WG992527
(S) a,a,a-Trifluorotoluene(FID) 98.3				77.0-122		06/24/2017 07:25	WG992527

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	2610		1.44	3.39	5	06/25/2017 14:29	WG992750
Ethane	U		0.296	1.29	1	06/25/2017 10:54	WG992330
Ethene	U		0.422	1.27	1	06/25/2017 10:54	WG992330

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	1.38	J	1.05	25.0	1	07/02/2017 15:08	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 15:08	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 15:08	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 15:08	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 15:08	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 15:08	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 15:08	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 15:08	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 15:08	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 15:08	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 15:08	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 15:08	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 15:08	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 15:08	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 15:08	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 15:08	WG994563



Collected date/time: 06/22/17 09:55

L918096

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloroform	U		0.0860	0.500	1	07/02/2017 15:08	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 15:08	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 15:08	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 15:08	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 15:08	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 15:08	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 15:08	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 15:08	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 15:08	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 15:08	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 15:08	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 15:08	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 15:08	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 15:08	WG994563
cis-1,2-Dichloroethene	0.194	J	0.0933	0.500	1	07/02/2017 15:08	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 15:08	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 15:08	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 15:08	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 15:08	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 15:08	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 15:08	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 15:08	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 15:08	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 15:08	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 15:08	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 15:08	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 15:08	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 15:08	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 15:08	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 15:08	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 15:08	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 15:08	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 15:08	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 15:08	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 15:08	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 15:08	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 15:08	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 15:08	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 15:08	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 15:08	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 15:08	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 15:08	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 15:08	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 15:08	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 15:08	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 15:08	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 15:08	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 15:08	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 15:08	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 15:08	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 15:08	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 15:08	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 15:08	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 15:08	WG994563
Vinyl chloride	1.32		0.118	0.500	1	07/02/2017 15:08	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 15:08	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	107			80.0-120		07/02/2017 15:08	WG994563
(S) Dibromofluoromethane	96.2			76.0-123		07/02/2017 15:08	WG994563
(S) 4-Bromofluorobenzene	101			80.0-120		07/02/2017 15:08	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	401000		2710	20000	1	06/29/2017 02:10	WG993348

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	33000		51.9	1000	1	06/23/2017 18:30	WG992228
Nitrate	U		22.7	100	1	06/23/2017 18:30	WG992228
Sulfate	46100		77.4	5000	1	06/23/2017 18:30	WG992228

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	7390		102	1000	1	06/29/2017 16:33	WG993861

Metals (ICPMS) by Method 6020A

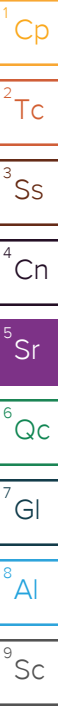
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	6190		15.0	100	1	06/28/2017 13:28	WG993124
Manganese	1190		0.250	5.00	1	06/28/2017 13:28	WG993124

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	3570		1.44	3.39	5	06/25/2017 14:31	WG992750
Ethane	4.98		0.296	1.29	1	06/25/2017 10:56	WG992330
Ethene	U		0.422	1.27	1	06/25/2017 10:56	WG992330

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 15:26	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 15:26	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 15:26	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 15:26	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 15:26	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 15:26	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 15:26	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 15:26	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 15:26	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 15:26	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 15:26	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 15:26	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 15:26	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 15:26	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 15:26	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 15:26	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 15:26	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 15:26	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 15:26	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 15:26	WG994563
1,2-Dibromo-3-Chloropropane	U		1.325	2.50	1	07/02/2017 15:26	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 15:26	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 15:26	WG994563





Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 15:26	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 15:26	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 15:26	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 15:26	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 15:26	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 15:26	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 15:26	WG994563
cis-1,2-Dichloroethene	0.523		0.0933	0.500	1	07/02/2017 15:26	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 15:26	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 15:26	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 15:26	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 15:26	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 15:26	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 15:26	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 15:26	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 15:26	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 15:26	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 15:26	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 15:26	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 15:26	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 15:26	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 15:26	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 15:26	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 15:26	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 15:26	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 15:26	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 15:26	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 15:26	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 15:26	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 15:26	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 15:26	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 15:26	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 15:26	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 15:26	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 15:26	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 15:26	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 15:26	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 15:26	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 15:26	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 15:26	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 15:26	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 15:26	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 15:26	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 15:26	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 15:26	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 15:26	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 15:26	WG994563
Vinyl chloride	8.45		0.118	0.500	1	07/02/2017 15:26	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 15:26	WG994563
(S) Toluene-d8	109			80.0-120		07/02/2017 15:26	WG994563
(S) Dibromofluoromethane	96.2			76.0-123		07/02/2017 15:26	WG994563
(S) 4-Bromofluorobenzene	102			80.0-120		07/02/2017 15:26	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/24/2017 07:46	WG992527
(S) a,a,a-Trifluorotoluene(FID)	98.1			77.0-122		06/24/2017 07:46	WG992527

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.74	J	1.05	25.0	1	07/02/2017 15:44	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 15:44	WG994563
Benzene	0.471	J	0.0896	0.500	1	07/02/2017 15:44	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 15:44	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 15:44	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 15:44	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 15:44	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 15:44	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 15:44	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 15:44	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 15:44	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 15:44	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 15:44	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 15:44	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 15:44	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 15:44	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 15:44	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 15:44	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 15:44	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 15:44	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 15:44	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 15:44	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 15:44	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 15:44	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 15:44	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 15:44	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 15:44	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 15:44	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 15:44	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 15:44	WG994563
cis-1,2-Dichloroethene	6.10		0.0933	0.500	1	07/02/2017 15:44	WG994563
trans-1,2-Dichloroethene	0.610		0.152	0.500	1	07/02/2017 15:44	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 15:44	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 15:44	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 15:44	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 15:44	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 15:44	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 15:44	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 15:44	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 15:44	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 15:44	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 15:44	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 15:44	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 15:44	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 15:44	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 15:44	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 15:44	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 15:44	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 15:44	WG994563



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 15:44	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 15:44	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 15:44	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 15:44	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 15:44	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 15:44	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 15:44	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 15:44	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 15:44	WG994563
Toluene	1.70		0.412	0.500	1	07/02/2017 15:44	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 15:44	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 15:44	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 15:44	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 15:44	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 15:44	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 15:44	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 15:44	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 15:44	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 15:44	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 15:44	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 15:44	WG994563
Vinyl chloride	3.57		0.118	0.500	1	07/02/2017 15:44	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 15:44	WG994563
(S) Toluene-d8	108			80.0-120		07/02/2017 15:44	WG994563
(S) Dibromofluoromethane	96.5			76.0-123		07/02/2017 15:44	WG994563
(S) 4-Bromofluorobenzene	99.6			80.0-120		07/02/2017 15:44	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3229693-1 06/29/17 00:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3230	J	2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L917941-07 Original Sample (OS) • Duplicate (DUP)

(OS) L917941-07 06/29/17 00:37 • (DUP) R3229693-3 06/29/17 00:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	430000	442000	1	3.00		20

L918096-03 Original Sample (OS) • Duplicate (DUP)

(OS) L918096-03 06/29/17 02:10 • (DUP) R3229693-5 06/29/17 02:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	401000	402000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229693-4 06/29/17 01:25 • (LCSD) R3229693-6 06/29/17 02:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	104000	110000	104	110	85.0-115			5.00	20



Method Blank (MB)

(MB) R3228442-1 06/23/17 06:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L918050-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918050-01 06/23/17 15:42 • (DUP) R3228442-5 06/23/17 15:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	ND	0.000	1	0		15
Sulfate	ND	0.000	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228442-2 06/23/17 06:43 • (LCSD) R3228442-3 06/23/17 06:56

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39300	39300	98	98	80-120			0	15
Nitrate	8000	8150	8170	102	102	80-120			0	15
Sulfate	40000	38800	38800	97	97	80-120			0	15

L916561-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L916561-05 06/23/17 14:11 • (MS) R3228442-4 06/23/17 14:24

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	54300	95500	83	1	80-120	
Nitrate	5000	335	4560	84	1	80-120	
Sulfate	50000	80600	117000	74	1	80-120	E J6

L918119-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918119-02 06/23/17 18:56 • (MS) R3228442-6 06/23/17 19:09 • (MSD) R3228442-7 06/23/17 19:22

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	11400	57800	57400	93	92	1	80-120			1	15
Nitrate	5000	4530	9280	9390	95	97	1	80-120			1	15
Sulfate	50000	27300	71800	71400	89	88	1	80-120			1	15



Method Blank (MB)

(MB) R3230074-2 06/29/17 13:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L917700-05 Original Sample (OS) • Duplicate (DUP)

(OS) L917700-05 06/29/17 14:59 • (DUP) R3230074-4 06/29/17 15:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	7540	7250	1	4		20

7 Gl

8 Al

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230074-3 06/29/17 14:08 • (LCSD) R3230074-5 06/29/17 17:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	71100	70300	95	94	85-115			1	20

9 Sc

L918537-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918537-01 06/29/17 20:43 • (MS) R3230074-6 06/29/17 20:58 • (MSD) R3230074-7 06/29/17 21:13

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	1560	48400	48500	94	94	1	80-120			0	20



Method Blank (MB)

(MB) R3230426-1 06/30/17 16:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L919296-03 Original Sample (OS) • Duplicate (DUP)

(OS) L919296-03 07/01/17 05:07 • (DUP) R3230426-7 07/01/17 05:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	46600	46800	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230426-2 06/30/17 16:56 • (LCSD) R3230426-3 06/30/17 18:07

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	72100	71800	96	96	85-115			0	20

L918846-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918846-01 07/01/17 02:59 • (MS) R3230426-5 07/01/17 03:17 • (MSD) R3230426-6 07/01/17 03:30

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	17100	57700	56900	81	80	1	80-120			1	20



Method Blank (MB)

(MB) R3229499-1 06/28/17 11:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229499-2 06/28/17 12:03 • (LCSD) R3229499-3 06/28/17 12:06

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Iron	5000	5100	5150	102	103	80-120			1	20
Manganese	50.0	46.0	46.4	92	93	80-120			1	20

5 Sr

6 Qc

L917294-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917294-12 06/28/17 12:10 • (MS) R3229499-5 06/28/17 12:17 • (MSD) R3229499-6 06/28/17 12:21

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Iron	5000	57.6	5120	5080	101	100	1	75-125			1	20
Manganese	50.0	3010	3060	3040	118	67	1	75-125		V	1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3229771-3 06/24/17 00:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)				77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229771-1 06/23/17 23:55 • (LCSD) R3229771-2 06/24/17 00:16

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	6180	5590	112	102	72.0-134			10.0	20
(S) a,a,a-Trifluorotoluene(FID)				102	102	77.0-122				

5 Sr

6 Qc

7 Gl

L917945-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917945-02 06/24/17 02:05 • (MS) R3229771-4 06/24/17 02:26 • (MSD) R3229771-5 06/24/17 02:47

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	ND	3590	3450	65.4	62.8	1	23.0-159			3.99	20
(S) a,a,a-Trifluorotoluene(FID)					98.6	98.4		77.0-122				

8 Al

9 Sc



Method Blank (MB)

(MB) R3228521-1 06/25/17 10:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

L917941-01 Original Sample (OS) • Duplicate (DUP)

(OS) L917941-01 06/25/17 10:34 • (DUP) R3228521-2 06/25/17 11:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

5 Sr

6 Qc

L918130-07 Original Sample (OS) • Duplicate (DUP)

(OS) L918130-07 06/25/17 11:06 • (DUP) R3228521-3 06/25/17 11:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228521-4 06/25/17 11:34 • (LCSD) R3228521-5 06/25/17 11:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ethane	129	117	120	90.5	93.0	70.0-130			2.79	20
Ethene	127	111	114	87.6	89.5	70.0-130			2.13	20



Method Blank (MB)

(MB) R3228534-1 06/25/17 14:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678

L918096-03 Original Sample (OS) • Duplicate (DUP)

(OS) L918096-03 06/25/17 14:31 • (DUP) R3228534-2 06/25/17 14:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	3570	3600	5	0.820		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228534-3 06/25/17 14:52 • (LCSD) R3228534-4 06/25/17 14:55

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	69.0	67.3	102	99.2	70.0-130			2.54	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3230904-3 07/02/17 12:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	1.00
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230904-3 07/02/17 12:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	94.3			76.0-123
(S) 4-Bromofluorobenzene	97.6			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230904-1 07/02/17 11:27 • (LCSD) R3230904-2 07/02/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	107	112	85.3	89.2	10.0-160			4.52	23
Acrylonitrile	125	130	124	104	99.4	60.0-142			4.37	20
Benzene	25.0	23.2	24.2	92.8	96.7	69.0-123			4.06	20
Bromobenzene	25.0	24.0	24.9	96.0	99.6	79.0-120			3.68	20
Bromodichloromethane	25.0	22.3	23.5	89.3	94.2	76.0-120			5.27	20
Bromochloromethane	25.0	25.5	26.5	102	106	76.0-122			3.56	20
Bromoform	25.0	23.4	24.3	93.6	97.3	67.0-132			3.88	20
Bromomethane	25.0	20.6	23.9	82.5	95.7	18.0-160			14.9	20
n-Butylbenzene	25.0	22.8	23.7	91.4	94.7	72.0-126			3.54	20
sec-Butylbenzene	25.0	22.8	23.3	91.2	93.3	74.0-121			2.28	20
tert-Butylbenzene	25.0	23.3	23.9	93.2	95.5	75.0-122			2.46	20
Carbon disulfide	25.0	19.9	21.1	79.5	84.4	55.0-127			5.96	20
Carbon tetrachloride	25.0	23.1	24.2	92.5	96.6	63.0-122			4.41	20
Chlorobenzene	25.0	25.5	26.0	102	104	79.0-121			1.76	20
Chlorodibromomethane	25.0	24.1	24.7	96.3	98.9	75.0-125			2.67	20
Chloroethane	25.0	23.6	24.6	94.6	98.4	47.0-152			3.99	20
Chloroform	25.0	22.5	23.5	89.9	94.0	72.0-121			4.50	20
Chloromethane	25.0	22.2	24.3	88.7	97.0	48.0-139			8.96	20
2-Chlorotoluene	25.0	24.1	24.8	96.4	99.3	74.0-122			3.03	20
4-Chlorotoluene	25.0	24.3	24.7	97.0	99.0	79.0-120			2.00	20
1,2-Dibromo-3-Chloropropane	25.0	24.8	24.1	99.3	96.2	64.0-127			3.17	20
1,2-Dibromoethane	25.0	25.5	25.6	102	102	77.0-123			0.530	20
Dibromomethane	25.0	23.8	24.9	95.2	99.5	78.0-120			4.38	20
1,2-Dichlorobenzene	25.0	24.1	25.2	96.2	101	80.0-120			4.63	20
1,3-Dichlorobenzene	25.0	24.0	25.0	95.9	100	72.0-123			4.35	20
1,4-Dichlorobenzene	25.0	23.7	24.5	94.9	98.1	77.0-120			3.24	20
Dichlorodifluoromethane	25.0	30.8	32.1	123	128	49.0-155			4.04	20
1,1-Dichloroethane	25.0	24.0	25.4	96.0	102	70.0-126			5.71	20
1,2-Dichloroethane	25.0	23.8	24.8	95.2	99.3	67.0-126			4.16	20
1,1-Dichloroethene	25.0	24.1	25.3	96.3	101	64.0-129			4.79	20
cis-1,2-Dichloroethene	25.0	22.8	23.7	91.3	94.8	73.0-120			3.80	20
trans-1,2-Dichloroethene	25.0	22.6	23.3	90.5	93.1	71.0-121			2.82	20
1,2-Dichloropropane	25.0	24.3	25.0	97.2	100	75.0-125			2.85	20
1,1-Dichloropropene	25.0	25.0	25.9	100	104	71.0-129			3.59	20
1,3-Dichloropropane	25.0	25.4	26.1	102	105	80.0-121			2.83	20
cis-1,3-Dichloropropene	25.0	24.8	25.5	99.0	102	79.0-123			2.96	20
trans-1,3-Dichloropropene	25.0	25.7	25.6	103	102	74.0-127			0.470	20
trans-1,4-Dichloro-2-butene	25.0	20.7	21.1	82.8	84.2	55.0-134			1.68	20
2,2-Dichloropropane	25.0	23.0	24.1	91.9	96.5	60.0-125			4.82	20
Di-isopropyl ether	25.0	23.1	24.2	92.2	96.6	59.0-133			4.64	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230904-1 07/02/17 11:27 • (LCSD) R3230904-2 07/02/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	25.0	25.4	100	102	77.0-120			1.45	20
Hexachloro-1,3-butadiene	25.0	21.5	21.5	86.0	85.9	64.0-131			0.120	20
2-Hexanone	125	120	118	96.4	94.7	58.0-147			1.73	20
n-Hexane	25.0	21.4	22.1	85.5	88.5	56.0-124			3.43	20
Iodomethane	125	74.7	106	59.7	84.5	57.0-140		J3	34.3	20
Isopropylbenzene	25.0	23.3	24.4	93.2	97.8	75.0-120			4.83	20
p-Isopropyltoluene	25.0	23.1	23.7	92.5	94.6	74.0-126			2.25	20
2-Butanone (MEK)	125	112	113	89.3	90.4	37.0-158			1.26	20
Methylene Chloride	25.0	21.8	23.4	87.4	93.5	66.0-121			6.77	20
4-Methyl-2-pentanone (MIBK)	125	116	115	93.2	91.8	59.0-143			1.47	20
Methyl tert-butyl ether	25.0	22.9	23.8	91.4	95.3	64.0-123			4.12	20
Naphthalene	25.0	23.3	23.7	93.3	94.8	62.0-128			1.55	20
n-Propylbenzene	25.0	23.9	25.0	95.5	99.9	79.0-120			4.43	20
Styrene	25.0	24.5	26.1	97.9	104	78.0-124			6.33	20
1,1,1,2-Tetrachloroethane	25.0	24.3	24.7	97.2	98.8	75.0-122			1.62	20
1,1,2,2-Tetrachloroethane	25.0	24.9	25.2	99.7	101	71.0-122			0.930	20
1,1,2-Trichlorotrifluoroethane	25.0	25.3	26.4	101	105	61.0-136			4.06	20
Tetrachloroethene	25.0	25.4	26.3	102	105	70.0-127			3.29	20
Toluene	25.0	23.8	24.5	95.0	97.9	77.0-120			3.05	20
1,2,3-Trichlorobenzene	25.0	22.4	23.1	89.5	92.5	61.0-133			3.27	20
1,2,4-Trichlorobenzene	25.0	22.8	23.2	91.1	92.8	69.0-129			1.81	20
1,1,1-Trichloroethane	25.0	23.2	24.1	92.9	96.6	68.0-122			3.80	20
1,1,2-Trichloroethane	25.0	24.6	24.9	98.3	99.8	78.0-120			1.47	20
Trichloroethene	25.0	24.8	26.1	99.1	104	78.0-120			5.17	20
Trichlorofluoromethane	25.0	23.3	24.6	93.3	98.3	56.0-137			5.18	20
1,2,3-Trichloropropane	25.0	25.2	26.0	101	104	72.0-124			3.19	20
1,2,4-Trimethylbenzene	25.0	23.0	23.8	92.1	95.4	75.0-120			3.47	20
1,2,3-Trimethylbenzene	25.0	23.5	24.4	94.0	97.4	75.0-120			3.59	20
1,3,5-Trimethylbenzene	25.0	22.8	24.0	91.4	95.9	75.0-120			4.84	20
Vinyl acetate	125	114	115	91.5	92.3	46.0-160			0.860	20
Vinyl chloride	25.0	27.7	29.1	111	116	64.0-133			5.11	20
Xylenes, Total	75.0	73.0	75.6	97.3	101	77.0-120			3.50	20
(S) Toluene-d8				105	102	80.0-120				
(S) Dibromofluoromethane				96.6	98.2	76.0-123				
(S) 4-Bromofluorobenzene				99.0	100	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

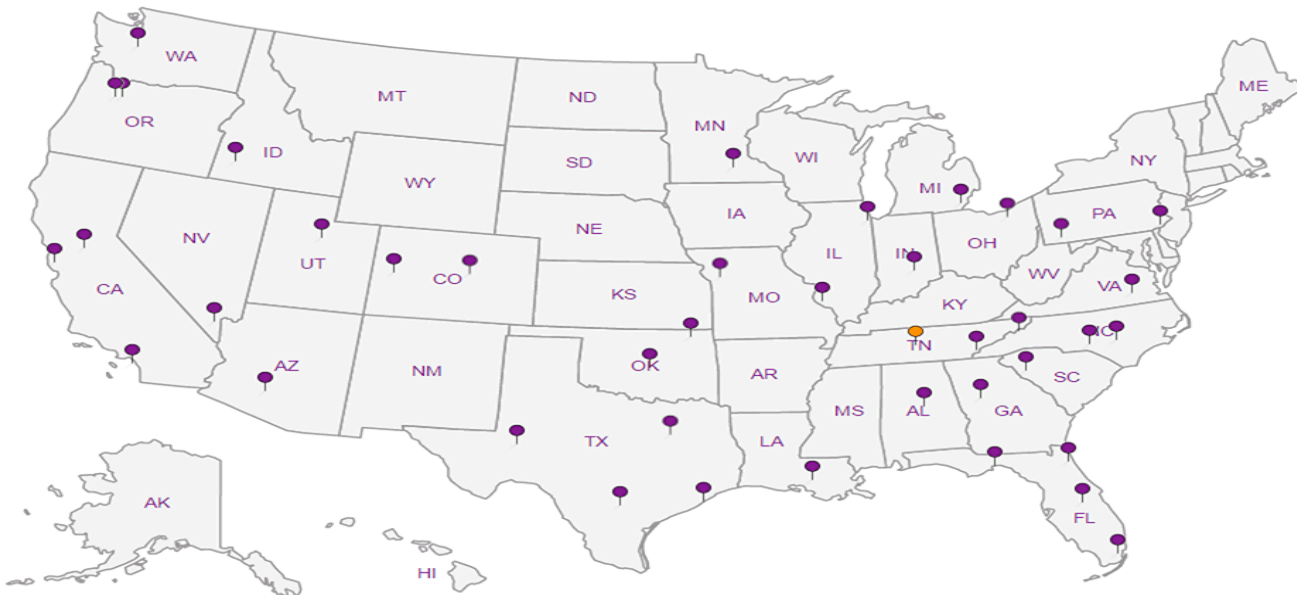
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:

Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres
Chk

Report to:
Bill Haldeman

Email To: bhaldean@pesenv.com

Project
Description: **American Linen Supply**

City/State
Collected: **SEATTLE, WA**

Phone: 206-529-3980
Fax: 206-529-3985

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Immediately
Packed on Ice N Y

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed

No.
of
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts
F5-062217	GRAB	GW	25	6/22/17	0835	6
F13-062217	↓	GW	25	↓	0955	11
MN15-062217	↓	GW	40	↓	1215	9
F9-062217	↓	GW	20	↓	1415	6
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				

*Alk, Cl, NO3, SO4 250ml HDPE-NoPres
NWT PHGX 40ml Amb HCl
TOC 250ml Amb-HCl
Total Fe Mn 6020 250ml HDPE-HNO3
low level 8260C 40ml Amb-HCl
low level RSK175 40ml Amb-HCl

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **718026**

C035

Acctnum: **PESENVSWA**
Template: **T124201**
Prelogin: **P603202**
TSR: **110 - Brian Ford**
PB: **5-31-17 6**

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	01
	02
	03
	04
	05
	06
	07
	08
	09
	10
	11
	12
	13
	14
	15
	16
	17
	18
	19
	20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks: *NO3 nitrate has a 48 hour holding time

Samples returned via:
 UPS FedEx Courier _____

Tracking # **7372 1955 0660**

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)
SMA

Date: **6/22/17**
Time: **1515**

Received by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Relinquished by: (Signature)

Date: _____
Time: _____

Received by: (Signature)

Temp: **4.2** °C
Bottles Received: **32**

Relinquished by: (Signature)

Date: _____
Time: _____

Received for lab by: (Signature)

Date: **6/23/17**
Time: **8:45**

If preservation required by Login: Date/Time

Hold: _____
Condition: **NCF / OK**

MEMORANDUM

TO: Project File **DATE:** July 25, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 22, 2017- Groundwater Samples
LAB: ESC Lab ID L918096

Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 22, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L918096. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L918096 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 4.2 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

Samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

Samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

Samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for carbon disulfide and iodomethane associated with analytical batch WG994563 (analyzed on July 2, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All sample results for carbon disulfide and iodomethane are estimated and qualified (UJ).**

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

NWTPH-Gx Method:

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

Method RSK-175:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

USEPA Method 6020:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks at or above the RDL.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level of alkalinity was measured in the method blank between the RDL and method detection limit (MDL). No action was necessary as associated alkalinity sample results are significantly greater than the detections in the blank.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Method RSK-175:

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples and on sample MW115-062217. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: A laboratory duplicate sample was performed on a non-client sample and on sample MW115-062217 within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: A laboratory duplicate sample was performed on non-client sample within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

EPA Method 9060A: Laboratory duplicate sample analyses were performed on non-client samples within the analytical batches. The primary/duplicate RPDs for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the sample, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussion:

- LCS/LCSD (Batch WG994563) RPDs for compound iodomethane are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are within control limits.

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

NWTPH-Gx Method:

Matrix spike analysis was performed on a non-client sample within the analytical batch.

MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample.

Method RSK-175:

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

USEPA Method 6020:

MS/MSD analysis was performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for the water sample with the following discussion:

- Manganese sample amount was greater than four times the spike amount and the MSD was not recovered. No action was taken other than to note this. Refer to LCS/LCSD results for additional information.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS and MS/MSD analysis was performed on non-client samples within the analytical batch. MS % Rs and MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water with the following discussion:

- The MS result for sulfate (analytical batch WG992228 analyzed on June 23, 2017) exceeded linear range of the instrument and recovery was below laboratory acceptance criteria. No action was taken since the spike was performed on a non-client sample and LCS/LCSD sulfate results are acceptable.

EPA Method 9060A: MS/MSD analyses were performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 06/22/17 08:35

L918096

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/24/2017 07:04	WG992527
(S) o,o,a-Trifluorotoluene(FID)	98.1			77.0-122		06/24/2017 07:04	WG992527

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	37.9		1.05	25.0	1	07/02/2017 14:50	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 14:50	WG994563
Benzene	0.374	J	0.0896	0.500	1	07/02/2017 14:50	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 14:50	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 14:50	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 14:50	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 14:50	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 14:50	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 14:50	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 14:50	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 14:50	WG994563
Carbon disulfide	U	VJ JO	0.101	0.500	1	07/02/2017 14:50	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 14:50	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 14:50	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 14:50	WG994563
Chloroethane	2.89		0.141	2.50	1	07/02/2017 14:50	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 14:50	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 14:50	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 14:50	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 14:50	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 14:50	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 14:50	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 14:50	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 14:50	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 14:50	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 14:50	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 14:50	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 14:50	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 14:50	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 14:50	WG994563
cis-1,2-Dichloroethene	10.4		0.0933	0.500	1	07/02/2017 14:50	WG994563
trans-1,2-Dichloroethene	0.485	J	0.152	0.500	1	07/02/2017 14:50	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 14:50	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 14:50	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 14:50	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 14:50	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 14:50	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 14:50	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 14:50	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 14:50	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 14:50	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 14:50	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 14:50	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 14:50	WG994563
Iodomethane	U	VJ JO J3	0.377	10.0	1	07/02/2017 14:50	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 14:50	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 14:50	WG994563
2-Butanone (MEK)	41.2		1.28	5.00	1	07/02/2017 14:50	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 14:50	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC
7/25/17

F5-062217

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 06/22/17 08:35

L918096

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 14:50	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 14:50	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 14:50	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 14:50	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 14:50	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 14:50	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 14:50	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 14:50	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 14:50	WG994563
Toluene	0.708		0.412	0.500	1	07/02/2017 14:50	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 14:50	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 14:50	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 14:50	WG994563
1,1,2-Trichloroethane	U		0.185	0.500	1	07/02/2017 14:50	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 14:50	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 14:50	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 14:50	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 14:50	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 14:50	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 14:50	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 14:50	WG994563
Vinyl chloride	63.9		0.118	0.500	1	07/02/2017 14:50	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 14:50	WG994563
(S) Toluene-d8	107			80.0-120		07/02/2017 14:50	WG994563
(S) Dibromofluoromethane	95.8			76.0-123		07/02/2017 14:50	WG994563
(S) 4-Bromofluorobenzene	101			80.0-120		07/02/2017 14:50	WG994563

- Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Handwritten signature and date: Jc 7/25/17



Collected date/time: 06/22/17 09:55

L918096

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	484000		2710	20000	1	06/29/2017 02:03	WG993348

Ca

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	12600		51.9	1000	1	06/23/2017 18:17	WG992228
Nitrate	U		22.7	100	1	06/23/2017 18:17	WG992228
Sulfate	6130		77.4	5000	1	06/23/2017 18:17	WG992228

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	10900		204	2000	2	06/30/2017 17:29	WG994361

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	29300		15.0	100	1	06/28/2017 13:25	WG993124
Manganese	806		0.250	5.00	1	06/28/2017 13:25	WG993124

Al

Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/24/2017 07:25	WG992527
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-122		06/24/2017 07:25	WG992527

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	2610		1.44	3.39	5	06/25/2017 14:29	WG992750
Ethane	U		0.296	1.29	1	06/25/2017 10:54	WG992330
Ethene	U		0.422	1.27	1	06/25/2017 10:54	WG992330

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.38	J ↓	1.05	25.0	1	07/02/2017 15:08	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 15:08	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 15:08	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 15:08	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 15:08	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 15:08	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 15:08	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 15:08	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 15:08	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 15:08	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 15:08	WG994563
Carbon disulfide	U	VS JO	0.101	0.500	1	07/02/2017 15:08	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 15:08	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 15:08	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 15:08	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 15:08	WG994563

GC 7/25/17



Collected date/time: 06/22/17 09:55

L918096

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloroform	U		0.0860	0.500	1	07/02/2017 15:08	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 15:08	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 15:08	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 15:08	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 15:08	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 15:08	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 15:08	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 15:08	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 15:08	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 15:08	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 15:08	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 15:08	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 15:08	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 15:08	WG994563
cis-1,2-Dichloroethene	0.194	J	0.0933	0.500	1	07/02/2017 15:08	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 15:08	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 15:08	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 15:08	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 15:08	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 15:08	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 15:08	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 15:08	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 15:08	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 15:08	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 15:08	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 15:08	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 15:08	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 15:08	WG994563
Iodomethane	U	UJ JO J3	0.377	10.0	1	07/02/2017 15:08	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 15:08	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 15:08	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 15:08	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 15:08	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 15:08	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 15:08	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 15:08	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 15:08	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 15:08	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 15:08	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 15:08	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 15:08	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 15:08	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 15:08	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 15:08	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 15:08	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 15:08	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 15:08	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 15:08	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 15:08	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 15:08	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 15:08	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 15:08	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 15:08	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 15:08	WG994563
Vinyl chloride	1.32		0.118	0.500	1	07/02/2017 15:08	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 15:08	WG994563

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

JC
7/25/17

F13-062217

SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.



Collected date/time: 06/22/17 09:55

L918096

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	107 ✓			80.0-120		07/02/2017 15:08	WG994563
(S) Dibromofluoromethane	96.2 ✓			76.0-123		07/02/2017 15:08	WG994563
(S) 4-Bromofluorobenzene	101 ✓			80.0-120		07/02/2017 15:08	WG994563

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Handwritten signature and date: 7/25/17

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	401000		2710	20000	1	06/29/2017 02:10	WG993348

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	33000		51.9	1000	1	06/23/2017 18:30	WG992228
Nitrate	U		22.7	100	1	06/23/2017 18:30	WG992228
Sulfate	46100		77.4	5000	1	06/23/2017 18:30	WG992228

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	7390		102	1000	1	06/29/2017 16:33	WG993861

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	6190		15.0	100	1	06/28/2017 13:28	WG993124
Manganese	1190		0.250	5.00	1	06/28/2017 13:28	WG993124

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	3570		1.44	3.39	5	06/25/2017 14:31	WG992750
Ethane	4.98		0.296	1.29	1	06/25/2017 10:56	WG992330
Ethene	U		0.422	1.27	1	06/25/2017 10:56	WG992330

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	07/02/2017 15:26	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 15:26	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 15:26	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 15:26	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 15:26	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 15:26	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 15:26	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 15:26	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 15:26	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 15:26	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 15:26	WG994563
Carbon disulfide	U	UJ JO	0.101	0.500	1	07/02/2017 15:26	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 15:26	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 15:26	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 15:26	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 15:26	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 15:26	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 15:26	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 15:26	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 15:26	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 15:26	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 15:26	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 15:26	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Jo 7/25/17

MW115-062217

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.



Collected date/time: 06/22/17 12:15

L918096

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 15:26	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 15:26	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 15:26	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 15:26	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 15:26	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 15:26	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 15:26	WG994563
cis-1,2-Dichloroethene	0.523		0.0933	0.500	1	07/02/2017 15:26	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 15:26	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 15:26	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 15:26	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 15:26	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 15:26	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 15:26	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 15:26	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 15:26	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 15:26	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 15:26	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 15:26	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 15:26	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 15:26	WG994563
Iodomethane	U	VJ JO J3	0.377	10.0	1	07/02/2017 15:26	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 15:26	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 15:26	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 15:26	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 15:26	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 15:26	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 15:26	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 15:26	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 15:26	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 15:26	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 15:26	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 15:26	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 15:26	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 15:26	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 15:26	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 15:26	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 15:26	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 15:26	WG994563
1,1,2-Trichloroethane	U		0.185	0.500	1	07/02/2017 15:26	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 15:26	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 15:26	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 15:26	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 15:26	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 15:26	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 15:26	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 15:26	WG994563
Vinyl chloride	8.45		0.118	0.500	1	07/02/2017 15:26	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 15:26	WG994563
(S) Toluene-d8	109			80.0-120		07/02/2017 15:26	WG994563
(S) Dibromofluoromethane	96.2			76.0-123		07/02/2017 15:26	WG994563
(S) 4-Bromofluorobenzene	102			80.0-120		07/02/2017 15:26	WG994563

- CP
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

JC
7/25/17



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	06/24/2017 07:46	WG992527
(S) o,a,a-Trifluorotoluene(FID)	98.1			77.0-122		06/24/2017 07:46	WG992527

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.74	J	1.05	25.0	1	07/02/2017 15:44	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 15:44	WG994563
Benzene	0.471	J	0.0896	0.500	1	07/02/2017 15:44	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 15:44	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 15:44	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 15:44	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 15:44	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 15:44	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 15:44	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 15:44	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 15:44	WG994563
Carbon disulfide	U	VS JO	0.101	0.500	1	07/02/2017 15:44	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 15:44	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 15:44	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 15:44	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 15:44	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 15:44	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 15:44	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 15:44	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 15:44	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 15:44	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 15:44	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 15:44	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 15:44	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 15:44	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 15:44	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 15:44	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 15:44	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 15:44	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 15:44	WG994563
cis-1,2-Dichloroethene	6.10		0.0933	0.500	1	07/02/2017 15:44	WG994563
trans-1,2-Dichloroethene	0.610		0.152	0.500	1	07/02/2017 15:44	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 15:44	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 15:44	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 15:44	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 15:44	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 15:44	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 15:44	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 15:44	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 15:44	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 15:44	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 15:44	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 15:44	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 15:44	WG994563
Iodomethane	U	VS JO J3	0.377	10.0	1	07/02/2017 15:44	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 15:44	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 15:44	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 15:44	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 15:44	WG994563

Co

Tc

Ss

Cn

Si

Qc

GI

AI

Sc

Handwritten signature and date: Jc 7/25/17



Collected date/time: 06/22/17 14:15

L918096

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 15:44	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 15:44	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 15:44	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 15:44	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 15:44	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 15:44	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 15:44	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 15:44	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 15:44	WG994563
Toluene	1.70		0.412	0.500	1	07/02/2017 15:44	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 15:44	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 15:44	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 15:44	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 15:44	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 15:44	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 15:44	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 15:44	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 15:44	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 15:44	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 15:44	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 15:44	WG994563
Vinyl chloride	3.57		0.118	0.500	1	07/02/2017 15:44	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 15:44	WG994563
(S) Toluene-d8	108			80.0-120		07/02/2017 15:44	WG994563
(S) Dibromofluoromethane	96.5			76.0-123		07/02/2017 15:44	WG994563
(S) 4-Bromofluorobenzene	99.6			80.0-120		07/02/2017 15:44	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

Sr

5 Qc

7 GI

8 AI

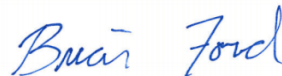
9 Sc

gc 7/25/17

PES Environmental, Inc.- WA

Sample Delivery Group: L918537
Samples Received: 06/24/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



FMW-131-062317 L918537-01 GW

Collected by Shannon McKernan
Collected date/time 06/23/17 08:45
Received date/time 06/24/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG994293	1	06/30/17 16:38	06/30/17 16:38	MCG
Wet Chemistry by Method 9056A	WG992587	1	06/24/17 17:43	06/24/17 17:43	DR
Wet Chemistry by Method 9060A	WG993861	1	06/29/17 20:43	06/29/17 20:43	SJM
Metals (ICPMS) by Method 6020A	WG993124	1	06/28/17 09:01	06/28/17 13:32	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG992737	1	06/25/17 13:24	06/25/17 13:24	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 16:38	07/02/17 16:38	JHH



GEI-2-062317 L918537-02 GW

Collected by Shannon McKernan
Collected date/time 06/23/17 10:45
Received date/time 06/24/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG994293	1	06/30/17 16:45	06/30/17 16:45	MCG
Wet Chemistry by Method 9056A	WG992587	1	06/24/17 18:27	06/24/17 18:27	DR
Wet Chemistry by Method 9060A	WG993861	1	06/29/17 21:24	06/29/17 21:24	SJM
Metals (ICPMS) by Method 6020A	WG993124	1	06/28/17 09:01	06/28/17 13:35	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG992737	1	06/25/17 13:30	06/25/17 13:30	MJ
Volatile Organic Compounds (GC) by Method RSK175	WG992750	20	06/25/17 14:34	06/25/17 14:34	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 16:56	07/02/17 16:56	JHH

FMW-3D-062317 L918537-03 GW

Collected by Shannon McKernan
Collected date/time 06/23/17 12:45
Received date/time 06/24/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 17:14	07/02/17 17:14	JHH

FMW-129-062317 L918537-04 GW

Collected by Shannon McKernan
Collected date/time 06/23/17 15:05
Received date/time 06/24/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG994293	1	06/30/17 16:51	06/30/17 16:51	MCG
Wet Chemistry by Method 9056A	WG992587	1	06/24/17 18:42	06/24/17 18:42	DR
Wet Chemistry by Method 9060A	WG993861	1	06/29/17 21:35	06/29/17 21:35	SJM
Metals (ICPMS) by Method 6020A	WG993124	1	06/28/17 09:01	06/28/17 13:39	JPD
Volatile Organic Compounds (GC) by Method RSK175	WG992750	1	06/25/17 14:36	06/25/17 14:36	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 17:32	07/02/17 17:32	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	10	07/04/17 11:43	07/04/17 11:43	JHH



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	273000		2710	20000	1	06/30/2017 16:38	WG994293

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	28100		51.9	1000	1	06/24/2017 17:43	WG992587
Nitrate	109		22.7	100	1	06/24/2017 17:43	WG992587
Sulfate	29200		77.4	5000	1	06/24/2017 17:43	WG992587

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1560		102	1000	1	06/29/2017 20:43	WG993861

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2390		15.0	100	1	06/28/2017 13:32	WG993124
Manganese	1260		0.250	5.00	1	06/28/2017 13:32	WG993124

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	87.4		0.287	0.678	1	06/25/2017 13:24	WG992737
Ethane	U		0.296	1.29	1	06/25/2017 13:24	WG992737
Ethene	U		0.422	1.27	1	06/25/2017 13:24	WG992737

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 16:38	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 16:38	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 16:38	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 16:38	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 16:38	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 16:38	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 16:38	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 16:38	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 16:38	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 16:38	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 16:38	WG994563
Carbon disulfide	U	<u>JO</u>	0.101	0.500	1	07/02/2017 16:38	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 16:38	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 16:38	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 16:38	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 16:38	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 16:38	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 16:38	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 16:38	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 16:38	WG994563
1,2-Dibromo-3-Chloropropane	U		1.325	2.50	1	07/02/2017 16:38	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 16:38	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 16:38	WG994563



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 16:38	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 16:38	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 16:38	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 16:38	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 16:38	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 16:38	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 16:38	WG994563
cis-1,2-Dichloroethene	3.61		0.0933	0.500	1	07/02/2017 16:38	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 16:38	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 16:38	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 16:38	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 16:38	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 16:38	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 16:38	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 16:38	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 16:38	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 16:38	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 16:38	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 16:38	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 16:38	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 16:38	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 16:38	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 16:38	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 16:38	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 16:38	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 16:38	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 16:38	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 16:38	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 16:38	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 16:38	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 16:38	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 16:38	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 16:38	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 16:38	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 16:38	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 16:38	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 16:38	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 16:38	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 16:38	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 16:38	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 16:38	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 16:38	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 16:38	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 16:38	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 16:38	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 16:38	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 16:38	WG994563
Vinyl chloride	0.264	J	0.118	0.500	1	07/02/2017 16:38	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 16:38	WG994563
(S) Toluene-d8	108			80.0-120		07/02/2017 16:38	WG994563
(S) Dibromofluoromethane	94.0			76.0-123		07/02/2017 16:38	WG994563
(S) 4-Bromofluorobenzene	98.9			80.0-120		07/02/2017 16:38	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	458000		2710	20000	1	06/30/2017 16:45	WG994293

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	23000		51.9	1000	1	06/24/2017 18:27	WG992587
Nitrate	U		22.7	100	1	06/24/2017 18:27	WG992587
Sulfate	8900		77.4	5000	1	06/24/2017 18:27	WG992587

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6840		102	1000	1	06/29/2017 21:24	WG993861

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	14900		15.0	100	1	06/28/2017 13:35	WG993124
Manganese	483		0.250	5.00	1	06/28/2017 13:35	WG993124

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	10500		5.74	13.6	20	06/25/2017 14:34	WG992750
Ethane	23.8		0.296	1.29	1	06/25/2017 13:30	WG992737
Ethene	42.5		0.422	1.27	1	06/25/2017 13:30	WG992737

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 16:56	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 16:56	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 16:56	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 16:56	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 16:56	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 16:56	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 16:56	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 16:56	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 16:56	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 16:56	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 16:56	WG994563
Carbon disulfide	U	<u>JO</u>	0.101	0.500	1	07/02/2017 16:56	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 16:56	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 16:56	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 16:56	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 16:56	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 16:56	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 16:56	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 16:56	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 16:56	WG994563
1,2-Dibromo-3-Chloropropane	U		1.325	2.50	1	07/02/2017 16:56	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 16:56	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 16:56	WG994563



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 16:56	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 16:56	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 16:56	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 16:56	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 16:56	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 16:56	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 16:56	WG994563
cis-1,2-Dichloroethene	16.3		0.0933	0.500	1	07/02/2017 16:56	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 16:56	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 16:56	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 16:56	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 16:56	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 16:56	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 16:56	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 16:56	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 16:56	WG994563
Di-isopropyl ether	0.130	J	0.0924	0.500	1	07/02/2017 16:56	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 16:56	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 16:56	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 16:56	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 16:56	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 16:56	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 16:56	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 16:56	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 16:56	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 16:56	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 16:56	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 16:56	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 16:56	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 16:56	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 16:56	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 16:56	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 16:56	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 16:56	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 16:56	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 16:56	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 16:56	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 16:56	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 16:56	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 16:56	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 16:56	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 16:56	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 16:56	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 16:56	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 16:56	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 16:56	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 16:56	WG994563
Vinyl chloride	127		0.118	0.500	1	07/02/2017 16:56	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 16:56	WG994563
(S) Toluene-d8	106			80.0-120		07/02/2017 16:56	WG994563
(S) Dibromofluoromethane	94.8			76.0-123		07/02/2017 16:56	WG994563
(S) 4-Bromofluorobenzene	101			80.0-120		07/02/2017 16:56	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 17:14	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 17:14	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 17:14	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 17:14	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 17:14	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 17:14	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 17:14	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 17:14	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 17:14	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 17:14	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 17:14	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 17:14	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 17:14	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 17:14	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 17:14	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 17:14	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 17:14	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 17:14	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 17:14	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 17:14	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 17:14	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 17:14	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 17:14	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 17:14	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 17:14	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 17:14	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 17:14	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 17:14	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 17:14	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 17:14	WG994563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/02/2017 17:14	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 17:14	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 17:14	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 17:14	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 17:14	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 17:14	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 17:14	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 17:14	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 17:14	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 17:14	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 17:14	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 17:14	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 17:14	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 17:14	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 17:14	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 17:14	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 17:14	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 17:14	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 17:14	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 17:14	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 17:14	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 17:14	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 17:14	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 17:14	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 17:14	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 17:14	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 17:14	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 17:14	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 17:14	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 17:14	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 17:14	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 17:14	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 17:14	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 17:14	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 17:14	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 17:14	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 17:14	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 17:14	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 17:14	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 17:14	WG994563
Vinyl chloride	U		0.118	0.500	1	07/02/2017 17:14	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 17:14	WG994563
(S) Toluene-d8	106			80.0-120		07/02/2017 17:14	WG994563
(S) Dibromofluoromethane	96.4			76.0-123		07/02/2017 17:14	WG994563
(S) 4-Bromofluorobenzene	101			80.0-120		07/02/2017 17:14	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	296000		2710	20000	1	06/30/2017 16:51	WG994293

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	36100		51.9	1000	1	06/24/2017 18:42	WG992587
Nitrate	91.4	J	22.7	100	1	06/24/2017 18:42	WG992587
Sulfate	95500		77.4	5000	1	06/24/2017 18:42	WG992587

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1700		102	1000	1	06/29/2017 21:35	WG993861

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	9920		15.0	100	1	06/28/2017 13:39	WG993124
Manganese	412		0.250	5.00	1	06/28/2017 13:39	WG993124

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	276		0.287	0.678	1	06/25/2017 14:36	WG992750
Ethane	14.7		0.296	1.29	1	06/25/2017 14:36	WG992750
Ethene	U		0.422	1.27	1	06/25/2017 14:36	WG992750

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.15	J	1.05	25.0	1	07/02/2017 17:32	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 17:32	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 17:32	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 17:32	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 17:32	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 17:32	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 17:32	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 17:32	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 17:32	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 17:32	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 17:32	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 17:32	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 17:32	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 17:32	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 17:32	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 17:32	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 17:32	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 17:32	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 17:32	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 17:32	WG994563
1,2-Dibromo-3-Chloropropane	U		1.325	2.50	1	07/02/2017 17:32	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 17:32	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 17:32	WG994563



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 17:32	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 17:32	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 17:32	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 17:32	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 17:32	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 17:32	WG994563
1,1-Dichloroethene	1.37		0.188	0.500	1	07/02/2017 17:32	WG994563
cis-1,2-Dichloroethene	474		0.933	5.00	10	07/04/2017 11:43	WG994563
trans-1,2-Dichloroethene	1.21		0.152	0.500	1	07/02/2017 17:32	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 17:32	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 17:32	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 17:32	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 17:32	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 17:32	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 17:32	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 17:32	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 17:32	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 17:32	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 17:32	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 17:32	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 17:32	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 17:32	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 17:32	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 17:32	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 17:32	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 17:32	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 17:32	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 17:32	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 17:32	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 17:32	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 17:32	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 17:32	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 17:32	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 17:32	WG994563
Tetrachloroethene	81.1		0.199	0.500	1	07/02/2017 17:32	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 17:32	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 17:32	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 17:32	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 17:32	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 17:32	WG994563
Trichloroethene	182		0.153	0.500	1	07/02/2017 17:32	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 17:32	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 17:32	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 17:32	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 17:32	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 17:32	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 17:32	WG994563
Vinyl chloride	4.13		0.118	0.500	1	07/02/2017 17:32	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 17:32	WG994563
(S) Toluene-d8	99.2			80.0-120		07/04/2017 11:43	WG994563
(S) Toluene-d8	103			80.0-120		07/02/2017 17:32	WG994563
(S) Dibromofluoromethane	97.8			76.0-123		07/02/2017 17:32	WG994563
(S) Dibromofluoromethane	118			76.0-123		07/04/2017 11:43	WG994563
(S) 4-Bromofluorobenzene	107			80.0-120		07/04/2017 11:43	WG994563
(S) 4-Bromofluorobenzene	98.6			80.0-120		07/02/2017 17:32	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3230425-1 06/30/17 15:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	4340	J	2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L918392-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918392-01 06/30/17 15:55 • (DUP) R3230425-2 06/30/17 16:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	183000	188000	1	2.00		20

L918687-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918687-01 06/30/17 20:06 • (DUP) R3230425-6 06/30/17 20:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	543000	504000	1	7.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230425-3 06/30/17 16:57 • (LCSD) R3230425-5 06/30/17 19:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	109000	108000	109	108	85.0-115			1.00	20



Method Blank (MB)

(MB) R3228654-1 06/24/17 06:03

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

L918361-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918361-01 06/24/17 09:50 • (DUP) R3228654-4 06/24/17 10:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	2660	2750	1	3		15
Sulfate	85500	85500	1	0		15

5 Sr

6 Qc

L918431-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918431-01 06/24/17 15:25 • (DUP) R3228654-6 06/24/17 15:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	6720	6650	1	1		15
Nitrate	1060	1360	1	25	J3	15
Sulfate	ND	0.000	1	0		15

7 Gl

8 Al

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228654-2 06/24/17 06:18 • (LCSD) R3228654-3 06/24/17 06:33

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39300	39400	98	98	80-120			0	15
Nitrate	8000	8040	8040	100	101	80-120			0	15
Sulfate	40000	39400	39500	99	99	80-120			0	15

9 Sc

L918431-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L918431-02 06/24/17 11:36 • (MS) R3228654-5 06/24/17 11:51

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	8980	57800	98	1	80-120	
Nitrate	5000	1830	6800	99	1	80-120	
Sulfate	50000	ND	50500	99	1	80-120	



L918537-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918537-01 06/24/17 17:43 • (MS) R3228654-7 06/24/17 17:58 • (MSD) R3228654-8 06/24/17 18:13

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits
Chloride	50000	28100	76000	76700	96	97	1	80-120			1	15
Nitrate	5000	109	4840	4990	95	98	1	80-120			3	15
Sulfate	50000	29200	77000	77700	96	97	1	80-120			1	15

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Method Blank (MB)

(MB) R3230074-2 06/29/17 13:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

L917700-05 Original Sample (OS) • Duplicate (DUP)

(OS) L917700-05 06/29/17 14:59 • (DUP) R3230074-4 06/29/17 15:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	7540	7250	1	4		20

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230074-3 06/29/17 14:08 • (LCSD) R3230074-5 06/29/17 17:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	71100	70300	95	94	85-115			1	20

⁷ Gl

⁸ Al

L918537-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918537-01 06/29/17 20:43 • (MS) R3230074-6 06/29/17 20:58 • (MSD) R3230074-7 06/29/17 21:13

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	1560	48400	48500	94	94	1	80-120			0	20

⁹ Sc



Method Blank (MB)

(MB) R3229499-1 06/28/17 11:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229499-2 06/28/17 12:03 • (LCSD) R3229499-3 06/28/17 12:06

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Iron	5000	5100	5150	102	103	80-120			1	20
Manganese	50.0	46.0	46.4	92	93	80-120			1	20

5 Sr

6 Qc

L917294-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L917294-12 06/28/17 12:10 • (MS) R3229499-5 06/28/17 12:17 • (MSD) R3229499-6 06/28/17 12:21

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Iron	5000	57.6	5120	5080	101	100	1	75-125			1	20
Manganese	50.0	3010	3060	3040	118	67	1	75-125		V	1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3228532-1 06/25/17 12:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L918537-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918537-01 06/25/17 13:24 • (DUP) R3228532-2 06/25/17 13:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	87.4	78.1	1	11.2		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

L918570-05 Original Sample (OS) • Duplicate (DUP)

(OS) L918570-05 06/25/17 13:41 • (DUP) R3228532-3 06/25/17 13:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	935	878	1	6.29		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228532-6 06/25/17 14:06 • (LCSD) R3228532-7 06/25/17 14:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	70.3	67.6	104	99.7	70.0-130			3.89	20
Ethane	129	120	121	92.7	93.6	70.0-130			0.980	20
Ethene	127	114	115	89.5	90.3	70.0-130			0.920	20

L918570-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918570-05 06/25/17 13:41 • (MS) R3228532-4 06/25/17 13:59 • (MSD) R3228532-5 06/25/17 14:02

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Methane	67.8	935	932	942	0.000	11.2	1	70.0-130	V	V	1.15	20
Ethane	129	U	147	145	114	112	1	70.0-130			1.37	20



L918570-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918570-05 06/25/17 13:41 • (MS) R3228532-4 06/25/17 13:59 • (MSD) R3228532-5 06/25/17 14:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
Ethene	127	U	139	137	110	108	1	70.0-130			1.62	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3228534-1 06/25/17 14:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L918096-03 Original Sample (OS) • Duplicate (DUP)

(OS) L918096-03 06/25/17 14:31 • (DUP) R3228534-2 06/25/17 14:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	3570	3600	5	0.820		20
Ethane	U	0.000	5	0.000		20
Ethene	U	0.000	5	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3228534-3 06/25/17 14:52 • (LCSD) R3228534-4 06/25/17 14:55

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	69.0	67.3	102	99.2	70.0-130			2.54	20
Ethane	129	121	119	94.0	92.0	70.0-130			2.13	20
Ethene	127	115	113	90.3	89.0	70.0-130			1.50	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3230904-3 07/02/17 12:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	1.00
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230904-3 07/02/17 12:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	94.3			76.0-123
(S) 4-Bromofluorobenzene	97.6			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230904-1 07/02/17 11:27 • (LCSD) R3230904-2 07/02/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	107	112	85.3	89.2	10.0-160			4.52	23
Acrylonitrile	125	130	124	104	99.4	60.0-142			4.37	20
Benzene	25.0	23.2	24.2	92.8	96.7	69.0-123			4.06	20
Bromobenzene	25.0	24.0	24.9	96.0	99.6	79.0-120			3.68	20
Bromodichloromethane	25.0	22.3	23.5	89.3	94.2	76.0-120			5.27	20
Bromochloromethane	25.0	25.5	26.5	102	106	76.0-122			3.56	20
Bromoform	25.0	23.4	24.3	93.6	97.3	67.0-132			3.88	20
Bromomethane	25.0	20.6	23.9	82.5	95.7	18.0-160			14.9	20
n-Butylbenzene	25.0	22.8	23.7	91.4	94.7	72.0-126			3.54	20
sec-Butylbenzene	25.0	22.8	23.3	91.2	93.3	74.0-121			2.28	20
tert-Butylbenzene	25.0	23.3	23.9	93.2	95.5	75.0-122			2.46	20
Carbon disulfide	25.0	19.9	21.1	79.5	84.4	55.0-127			5.96	20
Carbon tetrachloride	25.0	23.1	24.2	92.5	96.6	63.0-122			4.41	20
Chlorobenzene	25.0	25.5	26.0	102	104	79.0-121			1.76	20
Chlorodibromomethane	25.0	24.1	24.7	96.3	98.9	75.0-125			2.67	20
Chloroethane	25.0	23.6	24.6	94.6	98.4	47.0-152			3.99	20
Chloroform	25.0	22.5	23.5	89.9	94.0	72.0-121			4.50	20
Chloromethane	25.0	22.2	24.3	88.7	97.0	48.0-139			8.96	20
2-Chlorotoluene	25.0	24.1	24.8	96.4	99.3	74.0-122			3.03	20
4-Chlorotoluene	25.0	24.3	24.7	97.0	99.0	79.0-120			2.00	20
1,2-Dibromo-3-Chloropropane	25.0	24.8	24.1	99.3	96.2	64.0-127			3.17	20
1,2-Dibromoethane	25.0	25.5	25.6	102	102	77.0-123			0.530	20
Dibromomethane	25.0	23.8	24.9	95.2	99.5	78.0-120			4.38	20
1,2-Dichlorobenzene	25.0	24.1	25.2	96.2	101	80.0-120			4.63	20
1,3-Dichlorobenzene	25.0	24.0	25.0	95.9	100	72.0-123			4.35	20
1,4-Dichlorobenzene	25.0	23.7	24.5	94.9	98.1	77.0-120			3.24	20
Dichlorodifluoromethane	25.0	30.8	32.1	123	128	49.0-155			4.04	20
1,1-Dichloroethane	25.0	24.0	25.4	96.0	102	70.0-126			5.71	20
1,2-Dichloroethane	25.0	23.8	24.8	95.2	99.3	67.0-126			4.16	20
1,1-Dichloroethene	25.0	24.1	25.3	96.3	101	64.0-129			4.79	20
cis-1,2-Dichloroethene	25.0	22.8	23.7	91.3	94.8	73.0-120			3.80	20
trans-1,2-Dichloroethene	25.0	22.6	23.3	90.5	93.1	71.0-121			2.82	20
1,2-Dichloropropane	25.0	24.3	25.0	97.2	100	75.0-125			2.85	20
1,1-Dichloropropene	25.0	25.0	25.9	100	104	71.0-129			3.59	20
1,3-Dichloropropane	25.0	25.4	26.1	102	105	80.0-121			2.83	20
cis-1,3-Dichloropropene	25.0	24.8	25.5	99.0	102	79.0-123			2.96	20
trans-1,3-Dichloropropene	25.0	25.7	25.6	103	102	74.0-127			0.470	20
trans-1,4-Dichloro-2-butene	25.0	20.7	21.1	82.8	84.2	55.0-134			1.68	20
2,2-Dichloropropane	25.0	23.0	24.1	91.9	96.5	60.0-125			4.82	20
Di-isopropyl ether	25.0	23.1	24.2	92.2	96.6	59.0-133			4.64	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230904-1 07/02/17 11:27 • (LCSD) R3230904-2 07/02/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	25.0	25.4	100	102	77.0-120			1.45	20
Hexachloro-1,3-butadiene	25.0	21.5	21.5	86.0	85.9	64.0-131			0.120	20
2-Hexanone	125	120	118	96.4	94.7	58.0-147			1.73	20
n-Hexane	25.0	21.4	22.1	85.5	88.5	56.0-124			3.43	20
Iodomethane	125	74.7	106	59.7	84.5	57.0-140		J3	34.3	20
Isopropylbenzene	25.0	23.3	24.4	93.2	97.8	75.0-120			4.83	20
p-Isopropyltoluene	25.0	23.1	23.7	92.5	94.6	74.0-126			2.25	20
2-Butanone (MEK)	125	112	113	89.3	90.4	37.0-158			1.26	20
Methylene Chloride	25.0	21.8	23.4	87.4	93.5	66.0-121			6.77	20
4-Methyl-2-pentanone (MIBK)	125	116	115	93.2	91.8	59.0-143			1.47	20
Methyl tert-butyl ether	25.0	22.9	23.8	91.4	95.3	64.0-123			4.12	20
Naphthalene	25.0	23.3	23.7	93.3	94.8	62.0-128			1.55	20
n-Propylbenzene	25.0	23.9	25.0	95.5	99.9	79.0-120			4.43	20
Styrene	25.0	24.5	26.1	97.9	104	78.0-124			6.33	20
1,1,1,2-Tetrachloroethane	25.0	24.3	24.7	97.2	98.8	75.0-122			1.62	20
1,1,2,2-Tetrachloroethane	25.0	24.9	25.2	99.7	101	71.0-122			0.930	20
1,1,2-Trichlorotrifluoroethane	25.0	25.3	26.4	101	105	61.0-136			4.06	20
Tetrachloroethene	25.0	25.4	26.3	102	105	70.0-127			3.29	20
Toluene	25.0	23.8	24.5	95.0	97.9	77.0-120			3.05	20
1,2,3-Trichlorobenzene	25.0	22.4	23.1	89.5	92.5	61.0-133			3.27	20
1,2,4-Trichlorobenzene	25.0	22.8	23.2	91.1	92.8	69.0-129			1.81	20
1,1,1-Trichloroethane	25.0	23.2	24.1	92.9	96.6	68.0-122			3.80	20
1,1,2-Trichloroethane	25.0	24.6	24.9	98.3	99.8	78.0-120			1.47	20
Trichloroethene	25.0	24.8	26.1	99.1	104	78.0-120			5.17	20
Trichlorofluoromethane	25.0	23.3	24.6	93.3	98.3	56.0-137			5.18	20
1,2,3-Trichloropropane	25.0	25.2	26.0	101	104	72.0-124			3.19	20
1,2,4-Trimethylbenzene	25.0	23.0	23.8	92.1	95.4	75.0-120			3.47	20
1,2,3-Trimethylbenzene	25.0	23.5	24.4	94.0	97.4	75.0-120			3.59	20
1,3,5-Trimethylbenzene	25.0	22.8	24.0	91.4	95.9	75.0-120			4.84	20
Vinyl acetate	125	114	115	91.5	92.3	46.0-160			0.860	20
Vinyl chloride	25.0	27.7	29.1	111	116	64.0-133			5.11	20
Xylenes, Total	75.0	73.0	75.6	97.3	101	77.0-120			3.50	20
(S) Toluene-d8				105	102	80.0-120				
(S) Dibromofluoromethane				96.6	98.2	76.0-123				
(S) 4-Bromofluorobenzene				99.0	100	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.



State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

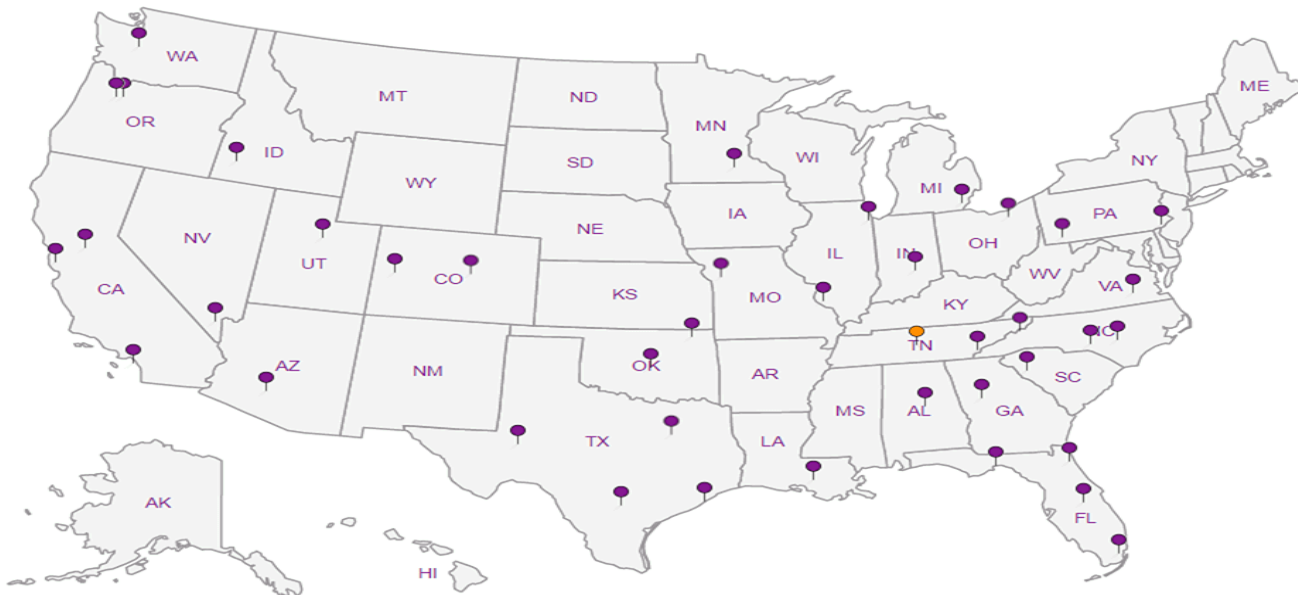
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project
Description: **American Linen Supply**

City/State
Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

Immediately
Packed on Ice N Y A

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*Alk, Cl, NO3, SO4 250ml HDPE-NoPres	NWTPHGX 40ml Amb-HCl	TOC 250ml Amb-HCl	Total Fe Mn 6020 250ml HDPE-HNO3	low level 8260C 40ml Amb-HCl	low level RSK175 40ml Amb-HCl
FMW-131-062317	GRAB	GW	68	6/23/17	0845	9	X	X	X	X	X	X
GEI-2-062317	↓	GW	55.5	↓	1045	9	X	X	X	X	X	X
FMW-3D-062317	↓	GW	63.5	↓	1245	4	X	X	X	X	X	X
FMW-129-062317	↓	GW	87	↓	1505	9	X	X	X	X	X	X
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NO3 nitrate has a 48 hour holding time

Samples returned via:
 UPS FedEx Courier

Tracking # **7372 1955 0774**

pH _____ Temp _____
Flow _____ Other _____


Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VGA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/23/17	Time: 1645	Received by: (Signature)	Trip Blank Received: Yes/No HCL/ MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.6 °C Bottles Received: 31
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 6/24/17 Time: 0845

If preservation required by Login: Date/Time
Hold:
Condition: **NCF / OK**

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# **L918537**

G180

Acctnum: **PESENVSWA**
Template: **T124201**
Prelogin: **P603202**
TSR: **110 - Brian Ford**
PB: **5-31-176**

Shipped Via: **FedEX Ground**

MEMORANDUM

TO: Project File **DATE:** July 25, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 23, 2017- Groundwater Samples
LAB: ESC Lab ID L918537

Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 23, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L918537. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L918537 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 1.6 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

Samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

Samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for carbon disulfide and iodomethane associated with analytical batch WG994563 (analyzed on July 2, 2017). These results are qualified by the laboratory “J0” to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All sample results for carbon disulfide and iodomethane are estimated and qualified (UJ).**

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

Method RSK-175:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

USEPA Method 6020:

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blank at or above the RDL.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level of alkalinity was measured in the method blank between the RDL and method detection limit (MDL). No action was necessary as associated alkalinity sample results are significantly greater than the detections in the blank.

Trip Blank Results

USEPA Method 8260C:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample

duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Method RSK-175:

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples and on sample FMW-131-062317. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit with the following discussion:

- Nitrate RPD result associated with batch WG992587 is greater than laboratory acceptance criteria but the laboratory duplicate analysis was performed on a non-client sample. No action is taken since the LCS/LCSD RPD result is acceptable.

EPA Method 9060A: A laboratory duplicate sample analyses was performed on a non-client sample within the analytical batch. The primary/duplicate RPDs for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussion:

- LCS/LCSD (Batch WG994563) RPD for compound iodomethane are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are within control limits.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Method RSK-175:

MS/MSD analysis was performed on a non-client sample. The methane concentration in the non-client sample (WG992737) is greater than four times the spike amount and the MS was not recovered. No action was taken other than to note this. Refer to LCS/LCSD results for additional information on accuracy and precision.

USEPA Method 6020:

MS/MSD analysis was performed on a non-client sample (WG993124) within the analytical batch. Manganese sample amount was greater than four times the spike amount and the MSD was not recovered. No action was taken other than to note this. Remaining MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS and MS/MSD analysis was performed on non-client sample and on sample FMW-131-062317 within the analytical batch. MS % Rs and MS/MSD % Rs and RPDs for anions were within the laboratory control criteria for water.

EPA Method 9060A: MS/MSD analyses were performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	273000		2710	20000	1	06/30/2017 16:38	WG994293

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	28100		51.9	1000	1	06/24/2017 17:43	WG992587
Nitrate	109		22.7	100	1	06/24/2017 17:43	WG992587
Sulfate	29200		77.4	5000	1	06/24/2017 17:43	WG992587

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1560		102	1000	1	06/29/2017 20:43	WG993861

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	2390		15.0	100	1	06/28/2017 13:32	WG993124
Manganese	1260		0.250	5.00	1	06/28/2017 13:32	WG993124

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	87.4		0.287	0.678	1	06/25/2017 13:24	WG992737
Ethane	U		0.296	1.29	1	06/25/2017 13:24	WG992737
Ethene	U		0.422	1.27	1	06/25/2017 13:24	WG992737

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	07/02/2017 16:38	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 16:38	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 16:38	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 16:38	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 16:38	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 16:38	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 16:38	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 16:38	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 16:38	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 16:38	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 16:38	WG994563
Carbon disulfide	U	UJ JO	0.101	0.500	1	07/02/2017 16:38	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 16:38	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 16:38	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 16:38	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 16:38	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 16:38	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 16:38	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 16:38	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 16:38	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 16:38	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 16:38	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 16:38	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 5 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 16:38	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 16:38	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 16:38	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 16:38	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 16:38	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 16:38	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 16:38	WG994563
cis-1,2-Dichloroethene	3.61		0.0933	0.500	1	07/02/2017 16:38	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 16:38	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 16:38	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 16:38	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 16:38	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 16:38	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 16:38	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 16:38	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 16:38	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 16:38	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 16:38	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 16:38	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 16:38	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 16:38	WG994563
Iodomethane	U	VJ JO J3	0.377	10.0	1	07/02/2017 16:38	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 16:38	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 16:38	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 16:38	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 16:38	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 16:38	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 16:38	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 16:38	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 16:38	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 16:38	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 16:38	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 16:38	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 16:38	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 16:38	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 16:38	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 16:38	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 16:38	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 16:38	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 16:38	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 16:38	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 16:38	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 16:38	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 16:38	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 16:38	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 16:38	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 16:38	WG994563
Vinyl chloride	0.264	J J	0.118	0.500	1	07/02/2017 16:38	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 16:38	WG994563
(S) Toluene-d8	108	✓		80.0-120		07/02/2017 16:38	WG994563
(S) Dibromofluoromethane	94.0	✓		76.0-123		07/02/2017 16:38	WG994563
(S) 4-Bromofluorobenzene	98.9	✓		80.0-120		07/02/2017 16:38	WG994563

Cp
Tc
Ss
Cn
Sr
Qc
GI
Al
Sc



Collected date/time: 06/23/17 10:45

L918537

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	458000		2710	20000	1	06/30/2017 16:45	WG994293

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	23000		51.9	1000	1	06/24/2017 18:27	WG992587
Nitrate	U		22.7	100	1	06/24/2017 18:27	WG992587
Sulfate	8900		77.4	5000	1	06/24/2017 18:27	WG992587

Ss

Cn

Si

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	6840		102	1000	1	06/29/2017 21:24	WG993861

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	14900		15.0	100	1	06/28/2017 13:35	WG993124
Manganese	483		0.250	5.00	1	06/28/2017 13:35	WG993124

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	10500		5.74	13.6	<u>20</u>	06/25/2017 14:34	WG992750
Ethane	23.8		0.296	1.29	1	06/25/2017 13:30	WG992737
Ethene	42.5		0.422	1.27	1	06/25/2017 13:30	WG992737

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	07/02/2017 16:56	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 16:56	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 16:56	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 16:56	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 16:56	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 16:56	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 16:56	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 16:56	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 16:56	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 16:56	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 16:56	WG994563
Carbon disulfide	U	<i>UJ JO</i>	0.101	0.500	1	07/02/2017 16:56	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 16:56	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 16:56	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 16:56	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 16:56	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 16:56	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 16:56	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 16:56	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 16:56	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 16:56	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 16:56	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 16:56	WG994563



Collected date/time: 06/23/17 10:45

L918537

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 16:56	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 16:56	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 16:56	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 16:56	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 16:56	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 16:56	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 16:56	WG994563
cis-1,2-Dichloroethene	16.3		0.0933	0.500	1	07/02/2017 16:56	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 16:56	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 16:56	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 16:56	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 16:56	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 16:56	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 16:56	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 16:56	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 16:56	WG994563
Di-isopropyl ether	0.130	J J	0.0924	0.500	1	07/02/2017 16:56	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 16:56	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 16:56	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 16:56	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 16:56	WG994563
Iodomethane	U	UJ JO J3	0.377	10.0	1	07/02/2017 16:56	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 16:56	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 16:56	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 16:56	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 16:56	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 16:56	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 16:56	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 16:56	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 16:56	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 16:56	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 16:56	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 16:56	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 16:56	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 16:56	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 16:56	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 16:56	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 16:56	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 16:56	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 16:56	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 16:56	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 16:56	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 16:56	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 16:56	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 16:56	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 16:56	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 16:56	WG994563
Vinyl chloride	127		0.118	0.500	1	07/02/2017 16:56	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 16:56	WG994563
(S) Toluene-d8	106			80.0-120		07/02/2017 16:56	WG994563
(S) Dibromofluoromethane	94.8			76.0-123		07/02/2017 16:56	WG994563
(S) 4-Bromofluorobenzene	101			80.0-120		07/02/2017 16:56	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 06/23/17 12:45

L918537

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	U		1.05	25.0	1	07/02/2017 17:14	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 17:14	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 17:14	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 17:14	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 17:14	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 17:14	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 17:14	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 17:14	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 17:14	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 17:14	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 17:14	WG994563
Carbon disulfide	U	VJ JO	0.101	0.500	1	07/02/2017 17:14	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 17:14	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 17:14	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 17:14	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 17:14	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 17:14	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 17:14	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 17:14	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 17:14	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 17:14	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 17:14	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 17:14	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 17:14	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 17:14	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 17:14	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 17:14	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 17:14	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 17:14	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 17:14	WG994563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/02/2017 17:14	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 17:14	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 17:14	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 17:14	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 17:14	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 17:14	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 17:14	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 17:14	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 17:14	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 17:14	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 17:14	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 17:14	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 17:14	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 17:14	WG994563
Iodomethane	U	VJ JO J3	0.377	10.0	1	07/02/2017 17:14	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 17:14	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 17:14	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 17:14	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 17:14	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 17:14	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 17:14	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 17:14	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 17:14	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 17:14	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 17:14	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 17:14	WG994563

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc



Collected date/time: 06/23/17 12:45

L918537

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 17:14	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 17:14	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 17:14	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 17:14	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 17:14	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 17:14	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 17:14	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 17:14	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 17:14	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 17:14	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 17:14	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 17:14	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 17:14	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 17:14	WG994563
Vinyl chloride	U		0.118	0.500	1	07/02/2017 17:14	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 17:14	WG994563
(S) Toluene-d8	106			80.0-120		07/02/2017 17:14	WG994563
(S) Dibromofluoromethane	96.4			76.0-123		07/02/2017 17:14	WG994563
(S) 4-Bromofluorobenzene	101			80.0-120		07/02/2017 17:14	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/23/17 15:05

L918537

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	296000		2710	20000	1	06/30/2017 16:51	WG994293

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	36100		51.9	1000	1	06/24/2017 18:42	WG992587
Nitrate	91.4	J J	22.7	100	1	06/24/2017 18:42	WG992587
Sulfate	95500		77.4	5000	1	06/24/2017 18:42	WG992587

3 Ss

4 Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1700		102	1000	1	06/29/2017 21:35	WG993861

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	9920		15.0	100	1	06/28/2017 13:39	WG993124
Manganese	412		0.250	5.00	1	06/28/2017 13:39	WG993124

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	276		0.287	0.678	1	06/25/2017 14:36	WG992750
Ethane	14.7		0.296	1.29	1	06/25/2017 14:36	WG992750
Ethene	U		0.422	1.27	1	06/25/2017 14:36	WG992750

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.15	J J	1.05	25.0	1	07/02/2017 17:32	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 17:32	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 17:32	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 17:32	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 17:32	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 17:32	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 17:32	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 17:32	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 17:32	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 17:32	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 17:32	WG994563
Carbon disulfide	U	U J JO	0.101	0.500	1	07/02/2017 17:32	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 17:32	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 17:32	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 17:32	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 17:32	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 17:32	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 17:32	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 17:32	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 17:32	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 17:32	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 17:32	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 17:32	WG994563



Collected date/time: 06/23/17 15:05

L918537

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 17:32	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 17:32	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 17:32	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 17:32	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 17:32	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 17:32	WG994563
1,1-Dichloroethene	1.37		0.188	0.500	1	07/02/2017 17:32	WG994563
cis-1,2-Dichloroethene	474		0.933	5.00	10	07/04/2017 11:43	WG994563
trans-1,2-Dichloroethene	1.21		0.152	0.500	1	07/02/2017 17:32	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 17:32	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 17:32	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 17:32	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 17:32	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 17:32	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 17:32	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 17:32	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 17:32	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 17:32	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 17:32	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 17:32	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 17:32	WG994563
Iodomethane	U	VJ JO J3	0.377	10.0	1	07/02/2017 17:32	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 17:32	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 17:32	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 17:32	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 17:32	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 17:32	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 17:32	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 17:32	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 17:32	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 17:32	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 17:32	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 17:32	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 17:32	WG994563
Tetrachloroethene	81.1		0.199	0.500	1	07/02/2017 17:32	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 17:32	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 17:32	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 17:32	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 17:32	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 17:32	WG994563
Trichloroethene	182		0.153	0.500	1	07/02/2017 17:32	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 17:32	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 17:32	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 17:32	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 17:32	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 17:32	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 17:32	WG994563
Vinyl chloride	4.13		0.118	0.500	1	07/02/2017 17:32	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 17:32	WG994563
(S) Toluene-d8	99.2	✓		80.0-120		07/04/2017 11:43	WG994563
(S) Toluene-d8	103	✓		80.0-120		07/02/2017 17:32	WG994563
(S) Dibromofluoromethane	97.8	✓		76.0-123		07/02/2017 17:32	WG994563
(S) Dibromofluoromethane	118	✓		76.0-123		07/04/2017 11:43	WG994563
(S) 4-Bromofluorobenzene	107	✓		80.0-120		07/04/2017 11:43	WG994563
(S) 4-Bromofluorobenzene	98.6	✓		80.0-120		07/02/2017 17:32	WG994563

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L918598
Samples Received: 06/24/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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Tc: Table of Contents	2	2 Tc
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Cn: Case Narrative	4	4 Cn
Sr: Sample Results	5	5 Sr
MW123-062417 L918598-01	5	5 Sr
Qc: Quality Control Summary	7	6 Qc
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Gl: Glossary of Terms	11	7 Gl
Al: Accreditations & Locations	12	8 Al
Sc: Chain of Custody	13	9 Sc

SAMPLE SUMMARY



MW123-062417 L918598-01 GW

Collected by Shannon McKernan
 Collected date/time 06/24/17 07:50
 Received date/time 06/24/17 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 17:50	07/02/17 17:50	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/04/17 10:53	07/04/17 10:53	JHH

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 17:50	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 17:50	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 17:50	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 17:50	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 17:50	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 17:50	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 17:50	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 17:50	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 17:50	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 17:50	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 17:50	WG994563
Carbon disulfide	U		0.101	0.500	1	07/02/2017 17:50	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 17:50	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 17:50	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 17:50	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 17:50	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 17:50	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 17:50	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 17:50	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 17:50	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 17:50	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 17:50	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 17:50	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 17:50	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 17:50	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 17:50	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 17:50	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 17:50	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 17:50	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 17:50	WG994563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/04/2017 10:53	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 17:50	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 17:50	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 17:50	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 17:50	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 17:50	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 17:50	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 17:50	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 17:50	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 17:50	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 17:50	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 17:50	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 17:50	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 17:50	WG994563
Iodomethane	U	J3	0.377	10.0	1	07/02/2017 17:50	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 17:50	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 17:50	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 17:50	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 17:50	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 17:50	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 17:50	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 17:50	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 17:50	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 17:50	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 17:50	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 17:50	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 17:50	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 17:50	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 17:50	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 17:50	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 17:50	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 17:50	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 17:50	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 17:50	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 17:50	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 17:50	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 17:50	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 17:50	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 17:50	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 17:50	WG994563
Vinyl chloride	U		0.118	0.500	1	07/02/2017 17:50	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 17:50	WG994563
(S) Toluene-d8	105			80.0-120		07/02/2017 17:50	WG994563
(S) Toluene-d8	102			80.0-120		07/04/2017 10:53	WG994563
(S) Dibromofluoromethane	116			76.0-123		07/04/2017 10:53	WG994563
(S) Dibromofluoromethane	96.2			76.0-123		07/02/2017 17:50	WG994563
(S) 4-Bromofluorobenzene	111			80.0-120		07/04/2017 10:53	WG994563
(S) 4-Bromofluorobenzene	99.0			80.0-120		07/02/2017 17:50	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3230904-3 07/02/17 12:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	1.00
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230904-3 07/02/17 12:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	94.3			76.0-123
(S) 4-Bromofluorobenzene	97.6			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230904-1 07/02/17 11:27 • (LCSD) R3230904-2 07/02/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	107	112	85.3	89.2	10.0-160			4.52	23
Acrylonitrile	125	130	124	104	99.4	60.0-142			4.37	20
Benzene	25.0	23.2	24.2	92.8	96.7	69.0-123			4.06	20
Bromobenzene	25.0	24.0	24.9	96.0	99.6	79.0-120			3.68	20
Bromodichloromethane	25.0	22.3	23.5	89.3	94.2	76.0-120			5.27	20
Bromochloromethane	25.0	25.5	26.5	102	106	76.0-122			3.56	20
Bromoform	25.0	23.4	24.3	93.6	97.3	67.0-132			3.88	20
Bromomethane	25.0	20.6	23.9	82.5	95.7	18.0-160			14.9	20
n-Butylbenzene	25.0	22.8	23.7	91.4	94.7	72.0-126			3.54	20
sec-Butylbenzene	25.0	22.8	23.3	91.2	93.3	74.0-121			2.28	20
tert-Butylbenzene	25.0	23.3	23.9	93.2	95.5	75.0-122			2.46	20
Carbon disulfide	25.0	19.9	21.1	79.5	84.4	55.0-127			5.96	20
Carbon tetrachloride	25.0	23.1	24.2	92.5	96.6	63.0-122			4.41	20
Chlorobenzene	25.0	25.5	26.0	102	104	79.0-121			1.76	20
Chlorodibromomethane	25.0	24.1	24.7	96.3	98.9	75.0-125			2.67	20
Chloroethane	25.0	23.6	24.6	94.6	98.4	47.0-152			3.99	20
Chloroform	25.0	22.5	23.5	89.9	94.0	72.0-121			4.50	20
Chloromethane	25.0	22.2	24.3	88.7	97.0	48.0-139			8.96	20
2-Chlorotoluene	25.0	24.1	24.8	96.4	99.3	74.0-122			3.03	20
4-Chlorotoluene	25.0	24.3	24.7	97.0	99.0	79.0-120			2.00	20
1,2-Dibromo-3-Chloropropane	25.0	24.8	24.1	99.3	96.2	64.0-127			3.17	20
1,2-Dibromoethane	25.0	25.5	25.6	102	102	77.0-123			0.530	20
Dibromomethane	25.0	23.8	24.9	95.2	99.5	78.0-120			4.38	20
1,2-Dichlorobenzene	25.0	24.1	25.2	96.2	101	80.0-120			4.63	20
1,3-Dichlorobenzene	25.0	24.0	25.0	95.9	100	72.0-123			4.35	20
1,4-Dichlorobenzene	25.0	23.7	24.5	94.9	98.1	77.0-120			3.24	20
Dichlorodifluoromethane	25.0	30.8	32.1	123	128	49.0-155			4.04	20
1,1-Dichloroethane	25.0	24.0	25.4	96.0	102	70.0-126			5.71	20
1,2-Dichloroethane	25.0	23.8	24.8	95.2	99.3	67.0-126			4.16	20
1,1-Dichloroethene	25.0	24.1	25.3	96.3	101	64.0-129			4.79	20
cis-1,2-Dichloroethene	25.0	22.8	23.7	91.3	94.8	73.0-120			3.80	20
trans-1,2-Dichloroethene	25.0	22.6	23.3	90.5	93.1	71.0-121			2.82	20
1,2-Dichloropropane	25.0	24.3	25.0	97.2	100	75.0-125			2.85	20
1,1-Dichloropropene	25.0	25.0	25.9	100	104	71.0-129			3.59	20
1,3-Dichloropropane	25.0	25.4	26.1	102	105	80.0-121			2.83	20
cis-1,3-Dichloropropene	25.0	24.8	25.5	99.0	102	79.0-123			2.96	20
trans-1,3-Dichloropropene	25.0	25.7	25.6	103	102	74.0-127			0.470	20
trans-1,4-Dichloro-2-butene	25.0	20.7	21.1	82.8	84.2	55.0-134			1.68	20
2,2-Dichloropropane	25.0	23.0	24.1	91.9	96.5	60.0-125			4.82	20
Di-isopropyl ether	25.0	23.1	24.2	92.2	96.6	59.0-133			4.64	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230904-1 07/02/17 11:27 • (LCSD) R3230904-2 07/02/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	25.0	25.4	100	102	77.0-120			1.45	20
Hexachloro-1,3-butadiene	25.0	21.5	21.5	86.0	85.9	64.0-131			0.120	20
2-Hexanone	125	120	118	96.4	94.7	58.0-147			1.73	20
n-Hexane	25.0	21.4	22.1	85.5	88.5	56.0-124			3.43	20
Iodomethane	125	74.7	106	59.7	84.5	57.0-140		J3	34.3	20
Isopropylbenzene	25.0	23.3	24.4	93.2	97.8	75.0-120			4.83	20
p-Isopropyltoluene	25.0	23.1	23.7	92.5	94.6	74.0-126			2.25	20
2-Butanone (MEK)	125	112	113	89.3	90.4	37.0-158			1.26	20
Methylene Chloride	25.0	21.8	23.4	87.4	93.5	66.0-121			6.77	20
4-Methyl-2-pentanone (MIBK)	125	116	115	93.2	91.8	59.0-143			1.47	20
Methyl tert-butyl ether	25.0	22.9	23.8	91.4	95.3	64.0-123			4.12	20
Naphthalene	25.0	23.3	23.7	93.3	94.8	62.0-128			1.55	20
n-Propylbenzene	25.0	23.9	25.0	95.5	99.9	79.0-120			4.43	20
Styrene	25.0	24.5	26.1	97.9	104	78.0-124			6.33	20
1,1,1,2-Tetrachloroethane	25.0	24.3	24.7	97.2	98.8	75.0-122			1.62	20
1,1,2,2-Tetrachloroethane	25.0	24.9	25.2	99.7	101	71.0-122			0.930	20
1,1,2-Trichlorotrifluoroethane	25.0	25.3	26.4	101	105	61.0-136			4.06	20
Tetrachloroethene	25.0	25.4	26.3	102	105	70.0-127			3.29	20
Toluene	25.0	23.8	24.5	95.0	97.9	77.0-120			3.05	20
1,2,3-Trichlorobenzene	25.0	22.4	23.1	89.5	92.5	61.0-133			3.27	20
1,2,4-Trichlorobenzene	25.0	22.8	23.2	91.1	92.8	69.0-129			1.81	20
1,1,1-Trichloroethane	25.0	23.2	24.1	92.9	96.6	68.0-122			3.80	20
1,1,2-Trichloroethane	25.0	24.6	24.9	98.3	99.8	78.0-120			1.47	20
Trichloroethene	25.0	24.8	26.1	99.1	104	78.0-120			5.17	20
Trichlorofluoromethane	25.0	23.3	24.6	93.3	98.3	56.0-137			5.18	20
1,2,3-Trichloropropane	25.0	25.2	26.0	101	104	72.0-124			3.19	20
1,2,4-Trimethylbenzene	25.0	23.0	23.8	92.1	95.4	75.0-120			3.47	20
1,2,3-Trimethylbenzene	25.0	23.5	24.4	94.0	97.4	75.0-120			3.59	20
1,3,5-Trimethylbenzene	25.0	22.8	24.0	91.4	95.9	75.0-120			4.84	20
Vinyl acetate	125	114	115	91.5	92.3	46.0-160			0.860	20
Vinyl chloride	25.0	27.7	29.1	111	116	64.0-133			5.11	20
Xylenes, Total	75.0	73.0	75.6	97.3	101	77.0-120			3.50	20
(S) Toluene-d8				105	102	80.0-120				
(S) Dibromofluoromethane				96.6	98.2	76.0-123				
(S) 4-Bromofluorobenzene				99.0	100	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

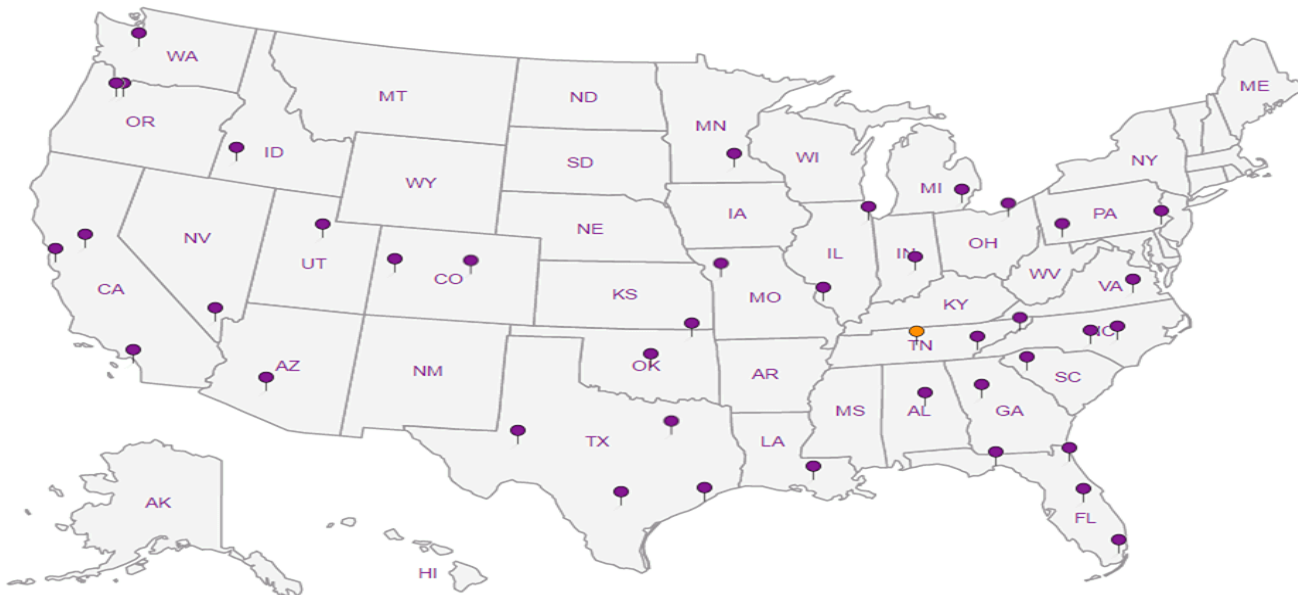
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:

Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



Report to:
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project
Description: **American Linen Supply**

City/State
Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed

Immediately
Packed on Ice N Y

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*Alk,Cl,NO3,S04 250mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl	low level RSK175 40mlAmb-HCl
MW123-062417	GRAB	GW	75	6/24/17	0750	4					X	
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

L# **L918598**
A217

Acctnum: **PESENVSWA**

Template: **T124201**

Prelogin: **P603202**

TSR: **110 - Brian Ford**

PB: **5-36176**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NO3 nitrate has a 48 hour holding time

Samples returned via:
 UPS FedEx Courier

Tracking # **7372 1955 0763**

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist:
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature) **[Signature]**

Date: **6/24/17** Time: **1140**

Received by: (Signature)

Trip Blank Received: Yes/No
HCL/MeOH
TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: °C **2.9** Bottles Received: **4 vP**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature) **[Signature]**

Date: **6/26/17** Time: **9:30**

Hold: Condition: **NCF / OK**

MEMORANDUM

TO: Project File **DATE:** July 26, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 24, 2017- Groundwater Samples
LAB: ESC Lab ID L918598

One (1) groundwater sample was collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 24, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The sample was analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C.

The results are reported in ESC Sample Delivery Group (SDG) L918598. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L918598 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

The sample was collected and analyzed as requested.

Sample Collection and Preservation

The sample was collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The sample was packed on ice and shipped overnight by

courier to ESC. The laboratory reported that the cooler and sample was received at 2.9 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the sample was received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

The sample was analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable and ESC's notes do indicate any issues.

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

Trip Blank Results

USEPA Method 8260C:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the sample, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analysis.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussion:

- LCS/LCSD (Batch WG994563) RPD for compound iodomethane are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are both within control limits.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017)

No data qualifiers were assigned. All data are judged to be acceptable for their intended use.



Collected date/time: 06/24/17 07:50

L918598

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
Acetone	U		1.05	25.0	1	07/02/2017 17:50	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 17:50	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 17:50	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 17:50	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 17:50	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 17:50	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 17:50	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 17:50	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 17:50	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 17:50	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 17:50	WG994563
Carbon disulfide	U		0.101	0.500	1	07/02/2017 17:50	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 17:50	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 17:50	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 17:50	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 17:50	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 17:50	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 17:50	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 17:50	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 17:50	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 17:50	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 17:50	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 17:50	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 17:50	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 17:50	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 17:50	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 17:50	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 17:50	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 17:50	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 17:50	WG994563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/04/2017 10:53	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 17:50	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 17:50	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 17:50	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 17:50	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 17:50	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 17:50	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 17:50	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 17:50	WG994563
Di-Isopropyl ether	U		0.0924	0.500	1	07/02/2017 17:50	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 17:50	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 17:50	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 17:50	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 17:50	WG994563
Iodomethane	U		0.377	10.0	1	07/02/2017 17:50	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 17:50	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 17:50	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 17:50	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 17:50	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 17:50	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 17:50	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 17:50	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 17:50	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 17:50	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 17:50	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 17:50	WG994563

Handwritten: J3
 7/25/17

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc



Collected date/time: 06/24/17 07:50

L918598

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 17:50	WG994563	1 Cp
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 17:50	WG994563	2 Tc
Toluene	U		0.412	0.500	1	07/02/2017 17:50	WG994563	3 Ss
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 17:50	WG994563	4 Cn
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 17:50	WG994563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 17:50	WG994563	
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 17:50	WG994563	
Trichloroethene	U		0.153	0.500	1	07/02/2017 17:50	WG994563	
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 17:50	WG994563	5 Sr
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 17:50	WG994563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 17:50	WG994563	6 Qc
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 17:50	WG994563	7 Gl
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 17:50	WG994563	8 Al
Vinyl acetate	U		0.645	5.00	1	07/02/2017 17:50	WG994563	
Vinyl chloride	U		0.118	0.500	1	07/02/2017 17:50	WG994563	
Xylenes, Total	U		0.316	1.50	1	07/02/2017 17:50	WG994563	9 Sc
(S) Toluene-d8	105			80.0-120		07/02/2017 17:50	WG994563	
(S) Toluene-d8	102			80.0-120		07/04/2017 10:53	WG994563	
(S) Dibromofluoromethane	116			76.0-123		07/04/2017 10:53	WG994563	
(S) Dibromofluoromethane	96.2			76.0-123		07/02/2017 17:50	WG994563	
(S) 4-Bromofluorobenzene	111			80.0-120		07/04/2017 10:53	WG994563	
(S) 4-Bromofluorobenzene	99.0			80.0-120		07/02/2017 17:50	WG994563	

PES Environmental, Inc.- WA

Sample Delivery Group: L918687
Samples Received: 06/27/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



D15-062617 L918687-01 GW

Collected by
Shannon McKernan

Collected date/time
06/26/17 08:05

Received date/time
06/27/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG994293	1	06/30/17 20:06	06/30/17 20:06	MCG
Wet Chemistry by Method 9056A	WG993484	1	06/28/17 00:30	06/28/17 00:30	DR
Wet Chemistry by Method 9060A	WG994361	1	06/30/17 21:31	06/30/17 21:31	SJM
Metals (ICPMS) by Method 6020A	WG994449	1	06/30/17 10:14	06/30/17 20:28	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993522	1	06/28/17 12:55	06/28/17 12:55	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG993867	5	06/28/17 14:15	06/28/17 14:15	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 18:26	07/02/17 18:26	JHH

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

J5-062617 L918687-02 GW

Collected by
Shannon McKernan

Collected date/time
06/26/17 09:20

Received date/time
06/27/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG994295	1	06/30/17 12:19	06/30/17 12:19	MCG
Wet Chemistry by Method 9056A	WG993484	1	06/28/17 00:44	06/28/17 00:44	DR
Wet Chemistry by Method 9060A	WG994888	2	07/01/17 12:46	07/01/17 12:46	SJM
Metals (ICPMS) by Method 6020A	WG994449	1	06/30/17 10:14	06/30/17 20:42	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993522	1	06/28/17 12:58	06/28/17 12:58	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG993867	20	06/28/17 14:17	06/28/17 14:17	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 18:44	07/02/17 18:44	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	10	07/04/17 12:08	07/04/17 12:08	JHH

J15-062617 L918687-03 GW

Collected by
Shannon McKernan

Collected date/time
06/26/17 11:15

Received date/time
06/27/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG994297	1	06/30/17 21:27	06/30/17 21:27	MCG
Wet Chemistry by Method 9056A	WG993484	1	06/28/17 01:13	06/28/17 01:13	DR
Wet Chemistry by Method 9060A	WG994361	1	06/30/17 21:56	06/30/17 21:56	SJM
Metals (ICPMS) by Method 6020A	WG994449	1	06/30/17 10:14	06/30/17 20:45	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993522	1	06/28/17 13:00	06/28/17 13:00	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG993867	5	06/28/17 14:19	06/28/17 14:19	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 19:02	07/02/17 19:02	JHH

K8-062617 L918687-04 GW

Collected by
Shannon McKernan

Collected date/time
06/26/17 12:30

Received date/time
06/27/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG994295	1	06/30/17 12:25	06/30/17 12:25	MCG
Wet Chemistry by Method 9056A	WG993484	1	06/28/17 01:27	06/28/17 01:27	DR
Wet Chemistry by Method 9060A	WG994361	1	06/30/17 22:08	06/30/17 22:08	SJM
Metals (ICPMS) by Method 6020A	WG994449	1	06/30/17 10:14	06/30/17 20:49	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993522	1	06/28/17 13:31	06/28/17 13:31	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 19:20	07/02/17 19:20	JHH

M15-062617 L918687-05 GW

Collected by
Shannon McKernan

Collected date/time
06/26/17 14:50

Received date/time
06/27/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG994297	1	06/30/17 21:41	06/30/17 21:41	MCG
Wet Chemistry by Method 9056A	WG993484	1	06/28/17 02:39	06/28/17 02:39	DR
Wet Chemistry by Method 9060A	WG994888	2	07/01/17 12:57	07/01/17 12:57	SJM

SAMPLE SUMMARY



M15-062617 L918687-05 GW

Collected by: Shannon McKernan
 Collected date/time: 06/26/17 14:50
 Received date/time: 06/27/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020A	WG994449	1	06/30/17 10:14	06/30/17 21:10	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993522	1	06/28/17 13:05	06/28/17 13:05	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG993867	20	06/28/17 14:23	06/28/17 14:23	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 19:38	07/02/17 19:38	JHH

1
Cp

2
Tc

3
Ss

4
Cn

TRIP BLANK L918687-06 GW

Collected by: Shannon McKernan
 Collected date/time: 06/26/17 00:00
 Received date/time: 06/27/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG994563	1	07/02/17 13:20	07/02/17 13:20	JHH

5
Sr

6
Qc

7
Gl

8
Al

9
Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	543000		2710	20000	1	06/30/2017 20:06	WG994293

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22100		51.9	1000	1	06/28/2017 00:30	WG993484
Nitrate	U		22.7	100	1	06/28/2017 00:30	WG993484
Sulfate	60400		77.4	5000	1	06/28/2017 00:30	WG993484

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	19000		102	1000	1	06/30/2017 21:31	WG994361

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	3020		15.0	100	1	06/30/2017 20:28	WG994449
Manganese	3030	<u>V</u>	0.250	5.00	1	06/30/2017 20:28	WG994449

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2340		1.44	3.39	5	06/28/2017 14:15	WG993867
Ethane	U		0.296	1.29	1	06/28/2017 12:55	WG993522
Ethene	U		0.422	1.27	1	06/28/2017 12:55	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.91	<u>J</u>	1.05	25.0	1	07/02/2017 18:26	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 18:26	WG994563
Benzene	0.173	<u>J</u>	0.0896	0.500	1	07/02/2017 18:26	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 18:26	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 18:26	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 18:26	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 18:26	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 18:26	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 18:26	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 18:26	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 18:26	WG994563
Carbon disulfide	U	<u>JO</u>	0.101	0.500	1	07/02/2017 18:26	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 18:26	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 18:26	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 18:26	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 18:26	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 18:26	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 18:26	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 18:26	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 18:26	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 18:26	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 18:26	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 18:26	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/17 08:05

L918687

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 18:26	WG994563	1 Cp
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 18:26	WG994563	2 Tc
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 18:26	WG994563	
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 18:26	WG994563	3 Ss
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 18:26	WG994563	
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 18:26	WG994563	4 Cn
1,1-Dichloroethene	1.81		0.188	0.500	1	07/02/2017 18:26	WG994563	
cis-1,2-Dichloroethene	39.3		0.0933	0.500	1	07/02/2017 18:26	WG994563	
trans-1,2-Dichloroethene	1.03		0.152	0.500	1	07/02/2017 18:26	WG994563	5 Sr
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 18:26	WG994563	
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 18:26	WG994563	6 Qc
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 18:26	WG994563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 18:26	WG994563	
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 18:26	WG994563	7 Gl
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 18:26	WG994563	
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 18:26	WG994563	8 Al
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 18:26	WG994563	
Ethylbenzene	U		0.158	0.500	1	07/02/2017 18:26	WG994563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 18:26	WG994563	9 Sc
2-Hexanone	U		0.757	5.00	1	07/02/2017 18:26	WG994563	
n-Hexane	U		0.305	5.00	1	07/02/2017 18:26	WG994563	
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 18:26	WG994563	
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 18:26	WG994563	
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 18:26	WG994563	
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 18:26	WG994563	
Methylene Chloride	U		1.07	2.50	1	07/02/2017 18:26	WG994563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 18:26	WG994563	
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 18:26	WG994563	
Naphthalene	U		0.174	2.50	1	07/02/2017 18:26	WG994563	
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 18:26	WG994563	
Styrene	U		0.117	0.500	1	07/02/2017 18:26	WG994563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 18:26	WG994563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 18:26	WG994563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 18:26	WG994563	
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 18:26	WG994563	
Toluene	0.551		0.412	0.500	1	07/02/2017 18:26	WG994563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 18:26	WG994563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 18:26	WG994563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 18:26	WG994563	
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 18:26	WG994563	
Trichloroethene	U		0.153	0.500	1	07/02/2017 18:26	WG994563	
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 18:26	WG994563	
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 18:26	WG994563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 18:26	WG994563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 18:26	WG994563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 18:26	WG994563	
Vinyl acetate	U		0.645	5.00	1	07/02/2017 18:26	WG994563	
Vinyl chloride	6.73		0.118	0.500	1	07/02/2017 18:26	WG994563	
Xylenes, Total	U		0.316	1.50	1	07/02/2017 18:26	WG994563	
(S) Toluene-d8	107			80.0-120		07/02/2017 18:26	WG994563	
(S) Dibromofluoromethane	97.2			76.0-123		07/02/2017 18:26	WG994563	
(S) 4-Bromofluorobenzene	99.7			80.0-120		07/02/2017 18:26	WG994563	



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	209000		2710	20000	1	06/30/2017 12:19	WG994295

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	45100		51.9	1000	1	06/28/2017 00:44	WG993484
Nitrate	U		22.7	100	1	06/28/2017 00:44	WG993484
Sulfate	8850		77.4	5000	1	06/28/2017 00:44	WG993484

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	11400		204	2000	2	07/01/2017 12:46	WG994888

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2910		15.0	100	1	06/30/2017 20:42	WG994449
Manganese	2240		0.250	5.00	1	06/30/2017 20:42	WG994449

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	9600		5.74	13.6	20	06/28/2017 14:17	WG993867
Ethane	19.6		0.296	1.29	1	06/28/2017 12:58	WG993522
Ethene	34.4		0.422	1.27	1	06/28/2017 12:58	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.15	J	1.05	25.0	1	07/02/2017 18:44	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 18:44	WG994563
Benzene	0.252	J	0.0896	0.500	1	07/02/2017 18:44	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 18:44	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 18:44	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 18:44	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 18:44	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 18:44	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 18:44	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 18:44	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 18:44	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 18:44	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 18:44	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 18:44	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 18:44	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 18:44	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 18:44	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 18:44	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 18:44	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 18:44	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 18:44	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 18:44	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 18:44	WG994563



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 18:44	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 18:44	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 18:44	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 18:44	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 18:44	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 18:44	WG994563
1,1-Dichloroethene	0.425	J	0.188	0.500	1	07/02/2017 18:44	WG994563
cis-1,2-Dichloroethene	366		0.933	5.00	10	07/04/2017 12:08	WG994563
trans-1,2-Dichloroethene	1.94		0.152	0.500	1	07/02/2017 18:44	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 18:44	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 18:44	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 18:44	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 18:44	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 18:44	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 18:44	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 18:44	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 18:44	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 18:44	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 18:44	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 18:44	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 18:44	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 18:44	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 18:44	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 18:44	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 18:44	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 18:44	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 18:44	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 18:44	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 18:44	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 18:44	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 18:44	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 18:44	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 18:44	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 18:44	WG994563
Tetrachloroethene	36.1		0.199	0.500	1	07/02/2017 18:44	WG994563
Toluene	0.506		0.412	0.500	1	07/02/2017 18:44	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 18:44	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 18:44	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 18:44	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 18:44	WG994563
Trichloroethene	37.1		0.153	0.500	1	07/02/2017 18:44	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 18:44	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 18:44	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 18:44	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 18:44	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 18:44	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 18:44	WG994563
Vinyl chloride	77.7		0.118	0.500	1	07/02/2017 18:44	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 18:44	WG994563
(S) Toluene-d8	101			80.0-120		07/04/2017 12:08	WG994563
(S) Toluene-d8	106			80.0-120		07/02/2017 18:44	WG994563
(S) Dibromofluoromethane	96.8			76.0-123		07/02/2017 18:44	WG994563
(S) Dibromofluoromethane	117			76.0-123		07/04/2017 12:08	WG994563
(S) 4-Bromofluorobenzene	109			80.0-120		07/04/2017 12:08	WG994563
(S) 4-Bromofluorobenzene	99.1			80.0-120		07/02/2017 18:44	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	486000		2710	20000	1	06/30/2017 21:27	WG994297

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22000		51.9	1000	1	06/28/2017 01:13	WG993484
Nitrate	U		22.7	100	1	06/28/2017 01:13	WG993484
Sulfate	60300		77.4	5000	1	06/28/2017 01:13	WG993484

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	19100		102	1000	1	06/30/2017 21:56	WG994361

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2660		15.0	100	1	06/30/2017 20:45	WG994449
Manganese	3090		0.250	5.00	1	06/30/2017 20:45	WG994449

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2220		1.44	3.39	5	06/28/2017 14:19	WG993867
Ethane	U		0.296	1.29	1	06/28/2017 13:00	WG993522
Ethene	U		0.422	1.27	1	06/28/2017 13:00	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.49	J	1.05	25.0	1	07/02/2017 19:02	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 19:02	WG994563
Benzene	0.173	J	0.0896	0.500	1	07/02/2017 19:02	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 19:02	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 19:02	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 19:02	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 19:02	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 19:02	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 19:02	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 19:02	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 19:02	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 19:02	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 19:02	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 19:02	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 19:02	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 19:02	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 19:02	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 19:02	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 19:02	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 19:02	WG994563
1,2-Dibromo-3-Chloropropane	U		1.325	2.50	1	07/02/2017 19:02	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 19:02	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 19:02	WG994563



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 19:02	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 19:02	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 19:02	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 19:02	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 19:02	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 19:02	WG994563
1,1-Dichloroethene	1.84		0.188	0.500	1	07/02/2017 19:02	WG994563
cis-1,2-Dichloroethene	39.8		0.0933	0.500	1	07/02/2017 19:02	WG994563
trans-1,2-Dichloroethene	1.06		0.152	0.500	1	07/02/2017 19:02	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 19:02	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 19:02	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 19:02	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 19:02	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 19:02	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 19:02	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 19:02	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 19:02	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 19:02	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 19:02	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 19:02	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 19:02	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 19:02	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 19:02	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 19:02	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 19:02	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 19:02	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 19:02	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 19:02	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 19:02	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 19:02	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 19:02	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 19:02	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 19:02	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 19:02	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 19:02	WG994563
Toluene	0.459	J	0.412	0.500	1	07/02/2017 19:02	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 19:02	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 19:02	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 19:02	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 19:02	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 19:02	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 19:02	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 19:02	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 19:02	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 19:02	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 19:02	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 19:02	WG994563
Vinyl chloride	6.30		0.118	0.500	1	07/02/2017 19:02	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 19:02	WG994563
(S) Toluene-d8	107			80.0-120		07/02/2017 19:02	WG994563
(S) Dibromofluoromethane	95.4			76.0-123		07/02/2017 19:02	WG994563
(S) 4-Bromofluorobenzene	100			80.0-120		07/02/2017 19:02	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	97500		2710	20000	1	06/30/2017 12:25	WG994295

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	14700		51.9	1000	1	06/28/2017 01:27	WG993484
Nitrate	307		22.7	100	1	06/28/2017 01:27	WG993484
Sulfate	25800		77.4	5000	1	06/28/2017 01:27	WG993484

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6450		102	1000	1	06/30/2017 22:08	WG994361

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	41.1	J	15.0	100	1	06/30/2017 20:49	WG994449
Manganese	296		0.250	5.00	1	06/30/2017 20:49	WG994449

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	72.7		0.287	0.678	1	06/28/2017 13:31	WG993522
Ethane	U		0.296	1.29	1	06/28/2017 13:31	WG993522
Ethene	U		0.422	1.27	1	06/28/2017 13:31	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.07	J	1.05	25.0	1	07/02/2017 19:20	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 19:20	WG994563
Benzene	0.246	J	0.0896	0.500	1	07/02/2017 19:20	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 19:20	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 19:20	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 19:20	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 19:20	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 19:20	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 19:20	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 19:20	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 19:20	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 19:20	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 19:20	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 19:20	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 19:20	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 19:20	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 19:20	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 19:20	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 19:20	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 19:20	WG994563
1,2-Dibromo-3-Chloropropane	U		1.325	2.50	1	07/02/2017 19:20	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 19:20	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 19:20	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/17 12:30

L918687

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 19:20	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 19:20	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 19:20	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 19:20	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 19:20	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 19:20	WG994563
1,1-Dichloroethene	1.34		0.188	0.500	1	07/02/2017 19:20	WG994563
cis-1,2-Dichloroethene	140		0.0933	0.500	1	07/02/2017 19:20	WG994563
trans-1,2-Dichloroethene	0.750		0.152	0.500	1	07/02/2017 19:20	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 19:20	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 19:20	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 19:20	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 19:20	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 19:20	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 19:20	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 19:20	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 19:20	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 19:20	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 19:20	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 19:20	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 19:20	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 19:20	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 19:20	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 19:20	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 19:20	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 19:20	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 19:20	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 19:20	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 19:20	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 19:20	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 19:20	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 19:20	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 19:20	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 19:20	WG994563
Tetrachloroethene	67.9		0.199	0.500	1	07/02/2017 19:20	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 19:20	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 19:20	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 19:20	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 19:20	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 19:20	WG994563
Trichloroethene	28.7		0.153	0.500	1	07/02/2017 19:20	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 19:20	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 19:20	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 19:20	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 19:20	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 19:20	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 19:20	WG994563
Vinyl chloride	0.456	J	0.118	0.500	1	07/02/2017 19:20	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 19:20	WG994563
(S) Toluene-d8	105			80.0-120		07/02/2017 19:20	WG994563
(S) Dibromofluoromethane	94.8			76.0-123		07/02/2017 19:20	WG994563
(S) 4-Bromofluorobenzene	97.1			80.0-120		07/02/2017 19:20	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	904000		2710	20000	1	06/30/2017 21:41	WG994297

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	11000		51.9	1000	1	06/28/2017 02:39	WG993484
Nitrate	U		22.7	100	1	06/28/2017 02:39	WG993484
Sulfate	47200		77.4	5000	1	06/28/2017 02:39	WG993484

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	11000		204	2000	2	07/01/2017 12:57	WG994888

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	3320		15.0	100	1	06/30/2017 21:10	WG994449
Manganese	6320		0.250	5.00	1	06/30/2017 21:10	WG994449

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	7250		5.74	13.6	20	06/28/2017 14:23	WG993867
Ethane	U		0.296	1.29	1	06/28/2017 13:05	WG993522
Ethene	U		0.422	1.27	1	06/28/2017 13:05	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 19:38	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 19:38	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 19:38	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 19:38	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 19:38	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 19:38	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 19:38	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 19:38	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 19:38	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 19:38	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 19:38	WG994563
Carbon disulfide	U	<u>JO</u>	0.101	0.500	1	07/02/2017 19:38	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 19:38	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 19:38	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 19:38	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 19:38	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 19:38	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 19:38	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 19:38	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 19:38	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 19:38	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 19:38	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 19:38	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/17 14:50

L918687

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 19:38	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 19:38	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 19:38	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 19:38	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 19:38	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 19:38	WG994563
1,1-Dichloroethene	0.508		0.188	0.500	1	07/02/2017 19:38	WG994563
cis-1,2-Dichloroethene	25.8		0.0933	0.500	1	07/02/2017 19:38	WG994563
trans-1,2-Dichloroethene	0.523		0.152	0.500	1	07/02/2017 19:38	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 19:38	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 19:38	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 19:38	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 19:38	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 19:38	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 19:38	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 19:38	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 19:38	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 19:38	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 19:38	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 19:38	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 19:38	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 19:38	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 19:38	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 19:38	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 19:38	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 19:38	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 19:38	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 19:38	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 19:38	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 19:38	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 19:38	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 19:38	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 19:38	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 19:38	WG994563
Tetrachloroethene	0.233	J	0.199	0.500	1	07/02/2017 19:38	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 19:38	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 19:38	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 19:38	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 19:38	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 19:38	WG994563
Trichloroethene	1.80		0.153	0.500	1	07/02/2017 19:38	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 19:38	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 19:38	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 19:38	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 19:38	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 19:38	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 19:38	WG994563
Vinyl chloride	15.0		0.118	0.500	1	07/02/2017 19:38	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 19:38	WG994563
(S) Toluene-d8	107			80.0-120		07/02/2017 19:38	WG994563
(S) Dibromofluoromethane	96.5			76.0-123		07/02/2017 19:38	WG994563
(S) 4-Bromofluorobenzene	99.9			80.0-120		07/02/2017 19:38	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 13:20	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 13:20	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 13:20	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 13:20	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 13:20	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 13:20	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 13:20	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 13:20	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 13:20	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 13:20	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 13:20	WG994563
Carbon disulfide	U	JO	0.101	0.500	1	07/02/2017 13:20	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 13:20	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 13:20	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 13:20	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 13:20	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 13:20	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 13:20	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 13:20	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 13:20	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 13:20	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 13:20	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 13:20	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 13:20	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 13:20	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 13:20	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 13:20	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 13:20	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 13:20	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 13:20	WG994563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/02/2017 13:20	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 13:20	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 13:20	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 13:20	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 13:20	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 13:20	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 13:20	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 13:20	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 13:20	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 13:20	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 13:20	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 13:20	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 13:20	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 13:20	WG994563
Iodomethane	U	JO J3	0.377	10.0	1	07/02/2017 13:20	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 13:20	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 13:20	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 13:20	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 13:20	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 13:20	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 13:20	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 13:20	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 13:20	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 13:20	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 13:20	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 13:20	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/26/17 00:00

L918687

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 13:20	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 13:20	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 13:20	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 13:20	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 13:20	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 13:20	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 13:20	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 13:20	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 13:20	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 13:20	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 13:20	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 13:20	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 13:20	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 13:20	WG994563
Vinyl chloride	U		0.118	0.500	1	07/02/2017 13:20	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 13:20	WG994563
(S) Toluene-d8	105			80.0-120		07/02/2017 13:20	WG994563
(S) Dibromofluoromethane	96.1			76.0-123		07/02/2017 13:20	WG994563
(S) 4-Bromofluorobenzene	101			80.0-120		07/02/2017 13:20	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3230425-1 06/30/17 15:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity	4340	J	2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L918392-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918392-01 06/30/17 15:55 • (DUP) R3230425-2 06/30/17 16:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	183000	188000	1	2.00		20

L918687-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918687-01 06/30/17 20:06 • (DUP) R3230425-6 06/30/17 20:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	543000	504000	1	7.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230425-3 06/30/17 16:57 • (LCSD) R3230425-5 06/30/17 19:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	109000	108000	109	108	85.0-115			1.00	20



Method Blank (MB)

(MB) R3230424-1 06/30/17 11:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	U		2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L917855-04 Original Sample (OS) • Duplicate (DUP)

(OS) L917855-04 06/30/17 11:42 • (DUP) R3230424-2 06/30/17 11:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	75700	77200	1	2.00		20

L918863-02 Original Sample (OS) • Duplicate (DUP)

(OS) L918863-02 06/30/17 14:53 • (DUP) R3230424-7 06/30/17 15:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	1050000	1070000	1	2.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230424-3 06/30/17 12:40 • (LCSD) R3230424-6 06/30/17 14:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	111000	113000	111	113	85.0-115			2.00	20



Method Blank (MB)

(MB) R3230477-2 06/30/17 21:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Alkalinity	4660	J	2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L919024-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919024-01 07/01/17 11:02 • (DUP) R3230477-7 07/01/17 11:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	161000	137000	1	16.0		20

L918687-03 Original Sample (OS) • Duplicate (DUP)

(OS) L918687-03 06/30/17 21:27 • (DUP) R3230477-4 06/30/17 21:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	486000	494000	1	2.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230477-5 06/30/17 22:25 • (LCSD) R3230477-6 06/30/17 23:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	107000	104000	107	104	85.0-115			3.00	20



Method Blank (MB)

(MB) R3229388-1 06/27/17 22:49

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L918687-02 Original Sample (OS) • Duplicate (DUP)

(OS) L918687-02 06/28/17 00:44 • (DUP) R3229388-4 06/28/17 00:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	45100	45300	1	0		15
Nitrate	U	0.000	1	0		15
Sulfate	8850	8850	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229388-2 06/27/17 23:03 • (LCSD) R3229388-3 06/27/17 23:17

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39800	39900	100	100	80-120			0	15
Nitrate	8000	8110	8120	101	101	80-120			0	15
Sulfate	40000	40300	40300	101	101	80-120			0	15

L918695-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918695-03 06/28/17 02:54 • (MS) R3229388-5 06/28/17 03:08 • (MSD) R3229388-6 06/28/17 03:23

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrate	5000	ND	4660	4700	92	92	1	80-120			1	15
Sulfate	50000	17800	64900	64700	94	94	1	80-120			0	15



Method Blank (MB)

(MB) R3230426-1 06/30/17 16:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L919296-03 Original Sample (OS) • Duplicate (DUP)

(OS) L919296-03 07/01/17 05:07 • (DUP) R3230426-7 07/01/17 05:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	46600	46800	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230426-2 06/30/17 16:56 • (LCSD) R3230426-3 06/30/17 18:07

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	72100	71800	96	96	85-115			0	20

L918846-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918846-01 07/01/17 02:59 • (MS) R3230426-5 07/01/17 03:17 • (MSD) R3230426-6 07/01/17 03:30

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	17100	57700	56900	81	80	1	80-120			1	20



Method Blank (MB)

(MB) R3230519-1 07/01/17 09:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	202	J	102	1000

¹ Cp

² Tc

³ Ss

L919100-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919100-01 07/01/17 19:32 • (DUP) R3230519-7 07/01/17 19:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	8620	8630	1	0		20

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230519-2 07/01/17 12:35 • (LCSD) R3230519-4 07/01/17 15:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	74500	74100	99	99	85-115			0	20

⁷ Gl

⁸ Al

L919056-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919056-02 07/01/17 16:23 • (MS) R3230519-5 07/01/17 16:37 • (MSD) R3230519-6 07/01/17 16:51

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	5820	55500	55600	99	100	1	80-120			0	20

⁹ Sc



Method Blank (MB)

(MB) R3230433-1 06/30/17 20:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230433-2 06/30/17 20:21 • (LCSD) R3230433-3 06/30/17 20:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5000	4890	100	98	80-120			2	20
Manganese	50.0	47.3	46.1	95	92	80-120			3	20

5 Sr

6 Qc

L918687-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L918687-01 06/30/17 20:28 • (MS) R3230433-5 06/30/17 20:35 • (MSD) R3230433-6 06/30/17 20:38

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	3020	7680	7660	93	93	1	75-125			0	20
Manganese	50.0	3030	3030	3040	15	22	1	75-125	V	V	0	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3229482-1 06/28/17 12:52

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L918687-04 Original Sample (OS) • Duplicate (DUP)

(OS) L918687-04 06/28/17 13:31 • (DUP) R3229482-2 06/28/17 13:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	72.7	77.7	1	6.65		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

L918863-05 Original Sample (OS) • Duplicate (DUP)

(OS) L918863-05 06/28/17 13:43 • (DUP) R3229482-3 06/28/17 13:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	373	376	1	0.780		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229482-4 06/28/17 13:51 • (LCSD) R3229482-5 06/28/17 13:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	69.0	75.1	102	111	70.0-130			8.47	20
Ethane	129	126	127	97.8	98.8	70.0-130			1.05	20
Ethene	127	121	122	95.1	96.1	70.0-130			1.00	20



Method Blank (MB)

(MB) R3229512-1 06/28/17 14:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L918687-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918687-01 06/28/17 14:15 • (DUP) R3229512-2 06/28/17 14:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	2340	2520	5	7.59		20

7 Gl

8 Al

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229512-3 06/28/17 14:45 • (LCSD) R3229512-4 06/28/17 14:48

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	74.2	72.2	109	107	70.0-130			2.71	20

9 Sc



Method Blank (MB)

(MB) R3230904-3 07/02/17 12:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	1.00
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230904-3 07/02/17 12:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	94.3			76.0-123
(S) 4-Bromofluorobenzene	97.6			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230904-1 07/02/17 11:27 • (LCSD) R3230904-2 07/02/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	107	112	85.3	89.2	10.0-160			4.52	23
Acrylonitrile	125	130	124	104	99.4	60.0-142			4.37	20
Benzene	25.0	23.2	24.2	92.8	96.7	69.0-123			4.06	20
Bromobenzene	25.0	24.0	24.9	96.0	99.6	79.0-120			3.68	20
Bromodichloromethane	25.0	22.3	23.5	89.3	94.2	76.0-120			5.27	20
Bromochloromethane	25.0	25.5	26.5	102	106	76.0-122			3.56	20
Bromoform	25.0	23.4	24.3	93.6	97.3	67.0-132			3.88	20
Bromomethane	25.0	20.6	23.9	82.5	95.7	18.0-160			14.9	20
n-Butylbenzene	25.0	22.8	23.7	91.4	94.7	72.0-126			3.54	20
sec-Butylbenzene	25.0	22.8	23.3	91.2	93.3	74.0-121			2.28	20
tert-Butylbenzene	25.0	23.3	23.9	93.2	95.5	75.0-122			2.46	20
Carbon disulfide	25.0	19.9	21.1	79.5	84.4	55.0-127			5.96	20
Carbon tetrachloride	25.0	23.1	24.2	92.5	96.6	63.0-122			4.41	20
Chlorobenzene	25.0	25.5	26.0	102	104	79.0-121			1.76	20
Chlorodibromomethane	25.0	24.1	24.7	96.3	98.9	75.0-125			2.67	20
Chloroethane	25.0	23.6	24.6	94.6	98.4	47.0-152			3.99	20
Chloroform	25.0	22.5	23.5	89.9	94.0	72.0-121			4.50	20
Chloromethane	25.0	22.2	24.3	88.7	97.0	48.0-139			8.96	20
2-Chlorotoluene	25.0	24.1	24.8	96.4	99.3	74.0-122			3.03	20
4-Chlorotoluene	25.0	24.3	24.7	97.0	99.0	79.0-120			2.00	20
1,2-Dibromo-3-Chloropropane	25.0	24.8	24.1	99.3	96.2	64.0-127			3.17	20
1,2-Dibromoethane	25.0	25.5	25.6	102	102	77.0-123			0.530	20
Dibromomethane	25.0	23.8	24.9	95.2	99.5	78.0-120			4.38	20
1,2-Dichlorobenzene	25.0	24.1	25.2	96.2	101	80.0-120			4.63	20
1,3-Dichlorobenzene	25.0	24.0	25.0	95.9	100	72.0-123			4.35	20
1,4-Dichlorobenzene	25.0	23.7	24.5	94.9	98.1	77.0-120			3.24	20
Dichlorodifluoromethane	25.0	30.8	32.1	123	128	49.0-155			4.04	20
1,1-Dichloroethane	25.0	24.0	25.4	96.0	102	70.0-126			5.71	20
1,2-Dichloroethane	25.0	23.8	24.8	95.2	99.3	67.0-126			4.16	20
1,1-Dichloroethene	25.0	24.1	25.3	96.3	101	64.0-129			4.79	20
cis-1,2-Dichloroethene	25.0	22.8	23.7	91.3	94.8	73.0-120			3.80	20
trans-1,2-Dichloroethene	25.0	22.6	23.3	90.5	93.1	71.0-121			2.82	20
1,2-Dichloropropane	25.0	24.3	25.0	97.2	100	75.0-125			2.85	20
1,1-Dichloropropene	25.0	25.0	25.9	100	104	71.0-129			3.59	20
1,3-Dichloropropane	25.0	25.4	26.1	102	105	80.0-121			2.83	20
cis-1,3-Dichloropropene	25.0	24.8	25.5	99.0	102	79.0-123			2.96	20
trans-1,3-Dichloropropene	25.0	25.7	25.6	103	102	74.0-127			0.470	20
trans-1,4-Dichloro-2-butene	25.0	20.7	21.1	82.8	84.2	55.0-134			1.68	20
2,2-Dichloropropane	25.0	23.0	24.1	91.9	96.5	60.0-125			4.82	20
Di-isopropyl ether	25.0	23.1	24.2	92.2	96.6	59.0-133			4.64	20

1 Cp

2 Tc

3 Ss

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8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230904-1 07/02/17 11:27 • (LCSD) R3230904-2 07/02/17 11:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	25.0	25.4	100	102	77.0-120			1.45	20
Hexachloro-1,3-butadiene	25.0	21.5	21.5	86.0	85.9	64.0-131			0.120	20
2-Hexanone	125	120	118	96.4	94.7	58.0-147			1.73	20
n-Hexane	25.0	21.4	22.1	85.5	88.5	56.0-124			3.43	20
Iodomethane	125	74.7	106	59.7	84.5	57.0-140		J3	34.3	20
Isopropylbenzene	25.0	23.3	24.4	93.2	97.8	75.0-120			4.83	20
p-Isopropyltoluene	25.0	23.1	23.7	92.5	94.6	74.0-126			2.25	20
2-Butanone (MEK)	125	112	113	89.3	90.4	37.0-158			1.26	20
Methylene Chloride	25.0	21.8	23.4	87.4	93.5	66.0-121			6.77	20
4-Methyl-2-pentanone (MIBK)	125	116	115	93.2	91.8	59.0-143			1.47	20
Methyl tert-butyl ether	25.0	22.9	23.8	91.4	95.3	64.0-123			4.12	20
Naphthalene	25.0	23.3	23.7	93.3	94.8	62.0-128			1.55	20
n-Propylbenzene	25.0	23.9	25.0	95.5	99.9	79.0-120			4.43	20
Styrene	25.0	24.5	26.1	97.9	104	78.0-124			6.33	20
1,1,1,2-Tetrachloroethane	25.0	24.3	24.7	97.2	98.8	75.0-122			1.62	20
1,1,2,2-Tetrachloroethane	25.0	24.9	25.2	99.7	101	71.0-122			0.930	20
1,1,2-Trichlorotrifluoroethane	25.0	25.3	26.4	101	105	61.0-136			4.06	20
Tetrachloroethene	25.0	25.4	26.3	102	105	70.0-127			3.29	20
Toluene	25.0	23.8	24.5	95.0	97.9	77.0-120			3.05	20
1,2,3-Trichlorobenzene	25.0	22.4	23.1	89.5	92.5	61.0-133			3.27	20
1,2,4-Trichlorobenzene	25.0	22.8	23.2	91.1	92.8	69.0-129			1.81	20
1,1,1-Trichloroethane	25.0	23.2	24.1	92.9	96.6	68.0-122			3.80	20
1,1,2-Trichloroethane	25.0	24.6	24.9	98.3	99.8	78.0-120			1.47	20
Trichloroethene	25.0	24.8	26.1	99.1	104	78.0-120			5.17	20
Trichlorofluoromethane	25.0	23.3	24.6	93.3	98.3	56.0-137			5.18	20
1,2,3-Trichloropropane	25.0	25.2	26.0	101	104	72.0-124			3.19	20
1,2,4-Trimethylbenzene	25.0	23.0	23.8	92.1	95.4	75.0-120			3.47	20
1,2,3-Trimethylbenzene	25.0	23.5	24.4	94.0	97.4	75.0-120			3.59	20
1,3,5-Trimethylbenzene	25.0	22.8	24.0	91.4	95.9	75.0-120			4.84	20
Vinyl acetate	125	114	115	91.5	92.3	46.0-160			0.860	20
Vinyl chloride	25.0	27.7	29.1	111	116	64.0-133			5.11	20
Xylenes, Total	75.0	73.0	75.6	97.3	101	77.0-120			3.50	20
(S) Toluene-d8				105	102	80.0-120				
(S) Dibromofluoromethane				96.6	98.2	76.0-123				
(S) 4-Bromofluorobenzene				99.0	100	80.0-120				

1 Cp

2 Tc

3 Ss

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Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

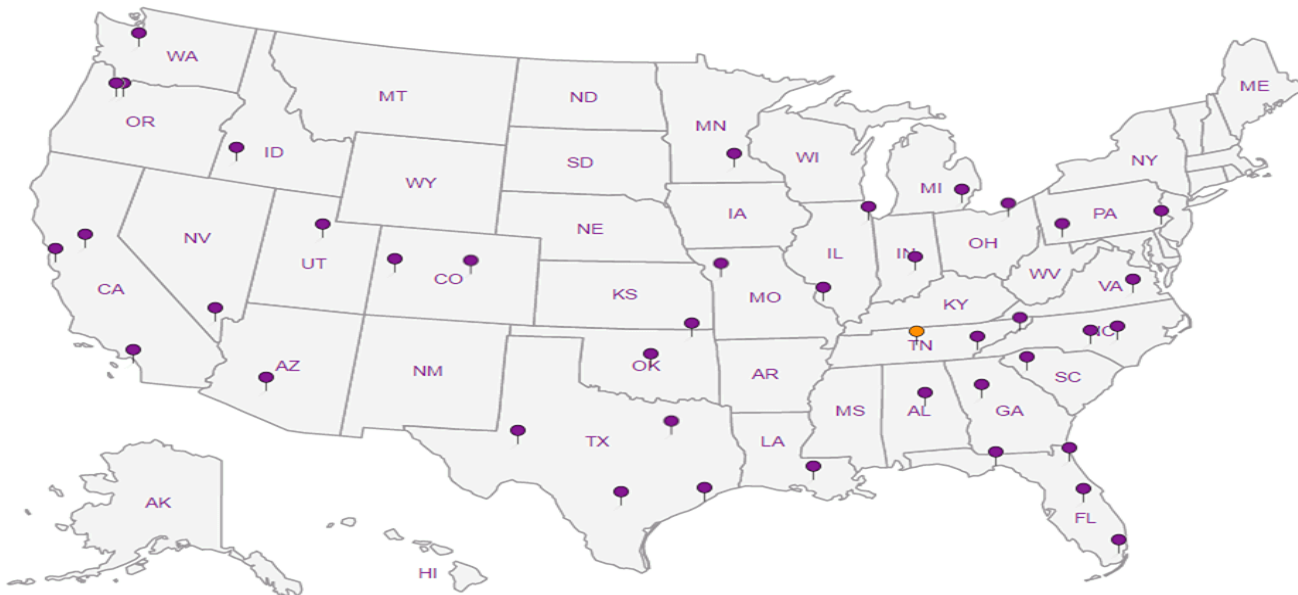
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MEMORANDUM

TO: Project File **DATE:** July 27, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 26, 2017- Groundwater Samples
LAB: ESC Lab ID L918687

Five (5) groundwater samples and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 26, 2017. The sample was shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. The samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L918687. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L918687 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 1.2 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

The samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

The samples were analyzed for dissolved gases within the method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

The samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

The samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues for carbon disulfide and iodomethane were identified by the laboratory for samples associated with analytical batch WG994563 (analyzed on July 2, 2017). These results are qualified by the laboratory “J0” to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated sample results for these compounds are estimated and qualified (UJ).**

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

Method RSK-175:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

USEPA Method 6020:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks at or above the RDL.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussions:

- Low levels of alkalinity were detected in the method blanks between the RDL and method detection limit (MDL). No action was necessary as associated alkalinity sample results are significantly greater than the detections in the blanks.
- A low level of TOC was detected in one of the method blanks between the RDL and MDL. No action was necessary as associated TOC sample results are significantly greater than the detection in the blank.

Trip Blank Results

USEPA Method 8260C:

A trip blank was collected and submitted for analysis. The target analytes (VOCs) were not detected in the trip blank at or above the reported detection limits (RDLs).

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicate (D15-062617 and J15-062617) results are comparable and less than 20% RPD.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Method RSK-175:

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on a non-client sample and on samples K8-062617 and D15-062617. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: Laboratory duplicate sample analyses were performed on non-client samples and on client samples D15-062617 and J15-062617 within the analytical batches. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: A laboratory duplicate sample was performed on sample J5-062617 within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

EPA Method 9060A: A laboratory duplicate sample was performed on non-client or client samples from another SDG within the analytical batches. The primary/duplicate RPDs for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the sample, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analysis.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussion:

- LCS/LCSD (Batch WG994563) RPD for compound iodomethane is above the laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are both within control limits.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Method RSK-175:

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information.

USEPA Method 6020:

MS/MSD analysis was performed on sample D15-062617. The MS/MSD % Rs and RPDs were acceptable and within laboratory control limit criteria for the water sample with the following discussion:

Sample D15-062617 manganese concentration was greater than four times the spike amount. No action was taken other than to note this. Refer to LCS/LCSD results for additional information.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS/MSD analysis was performed on non-client sample within the analytical batches. MS/MSD % Rs and RPDs for anions (nitrate and sulfate only) were within the laboratory control criteria for water. For more information on chloride refer to LCS/LCSD results for additional information.

EPA Method 9060A: MS/MSD analysis was performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	543000		2710	20000	1	06/30/2017 20:06	WG994293

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	22100		51.9	1000	1	06/28/2017 00:30	WG993484
Nitrate	U		22.7	100	1	06/28/2017 00:30	WG993484
Sulfate	60400		77.4	5000	1	06/28/2017 00:30	WG993484

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	19000		102	1000	1	06/30/2017 21:31	WG994361

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	3020		15.0	100	1	06/30/2017 20:28	WG994449
Manganese	3030	V	0.250	5.00	1	06/30/2017 20:28	WG994449

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	2340		1.44	3.39	5	06/28/2017 14:15	WG993867
Ethane	U		0.296	1.29	1	06/28/2017 12:55	WG993522
Ethene	U		0.422	1.27	1	06/28/2017 12:55	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.91	J J	1.05	25.0	1	07/02/2017 18:26	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 18:26	WG994563
Benzene	0.173	J J	0.0896	0.500	1	07/02/2017 18:26	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 18:26	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 18:26	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 18:26	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 18:26	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 18:26	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 18:26	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 18:26	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 18:26	WG994563
Carbon disulfide	U	V5 JO	0.101	0.500	1	07/02/2017 18:26	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 18:26	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 18:26	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 18:26	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 18:26	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 18:26	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 18:26	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 18:26	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 18:26	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 18:26	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 18:26	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 18:26	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Jc 7/27/17

D15-062617

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 06/26/17 08:05

L918687

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 18:26	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 18:26	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 18:26	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 18:26	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 18:26	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 18:26	WG994563
1,1-Dichloroethene	1.81		0.188	0.500	1	07/02/2017 18:26	WG994563
cis-1,2-Dichloroethene	39.3		0.0933	0.500	1	07/02/2017 18:26	WG994563
trans-1,2-Dichloroethene	1.03		0.152	0.500	1	07/02/2017 18:26	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 18:26	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 18:26	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 18:26	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 18:26	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 18:26	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 18:26	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 18:26	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 18:26	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 18:26	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 18:26	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 18:26	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 18:26	WG994563
Iodomethane	U	VJ JO J3	0.377	10.0	1	07/02/2017 18:26	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 18:26	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 18:26	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 18:26	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 18:26	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 18:26	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 18:26	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 18:26	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 18:26	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 18:26	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 18:26	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 18:26	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 18:26	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 18:26	WG994563
Toluene	0.551		0.412	0.500	1	07/02/2017 18:26	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 18:26	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 18:26	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 18:26	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 18:26	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 18:26	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 18:26	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 18:26	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 18:26	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 18:26	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 18:26	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 18:26	WG994563
Vinyl chloride	6.73		0.118	0.500	1	07/02/2017 18:26	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 18:26	WG994563
(S) Toluene-d8	107			80.0-120		07/02/2017 18:26	WG994563
(S) Dibromofluoromethane	97.2			76.0-123		07/02/2017 18:26	WG994563
(S) 4-Bromofluorobenzene	99.7			80.0-120		07/02/2017 18:26	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Collected date/time: 06/26/17 09:20

L918687

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	209000		2710	20000	1	06/30/2017 12:19	WG994295

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	45100		51.9	1000	1	06/28/2017 00:44	WG993484
Nitrate	U		22.7	100	1	06/28/2017 00:44	WG993484
Sulfate	8850		77.4	5000	1	06/28/2017 00:44	WG993484

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	11400		204	2000	2	07/01/2017 12:46	WG994888

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	2910		15.0	100	1	06/30/2017 20:42	WG994449
Manganese	2240		0.250	5.00	1	06/30/2017 20:42	WG994449

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	9600		5.74	13.6	20	06/28/2017 14:17	WG993867
Ethane	19.6		0.296	1.29	1	06/28/2017 12:58	WG993522
Ethene	34.4		0.422	1.27	1	06/28/2017 12:58	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.15	J	1.05	25.0	1	07/02/2017 18:44	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 18:44	WG994563
Benzene	0.252	J	0.0896	0.500	1	07/02/2017 18:44	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 18:44	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 18:44	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 18:44	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 18:44	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 18:44	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 18:44	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 18:44	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 18:44	WG994563
Carbon disulfide	U	VS JO	0.101	0.500	1	07/02/2017 18:44	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 18:44	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 18:44	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 18:44	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 18:44	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 18:44	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 18:44	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 18:44	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 18:44	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 18:44	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 18:44	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 18:44	WG994563

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SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.



Collected date/time: 06/26/17 09:20

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 18:44	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 18:44	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 18:44	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 18:44	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 18:44	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 18:44	WG994563
1,1-Dichloroethene	0.425	J J	0.188	0.500	1	07/02/2017 18:44	WG994563
cis-1,2-Dichloroethene	366		0.933	5.00	10	07/04/2017 12:08	WG994563
trans-1,2-Dichloroethene	1.94		0.152	0.500	1	07/02/2017 18:44	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 18:44	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 18:44	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 18:44	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 18:44	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 18:44	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 18:44	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 18:44	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 18:44	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 18:44	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 18:44	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 18:44	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 18:44	WG994563
Iodomethane	U	UJ JO J3	0.377	10.0	1	07/02/2017 18:44	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 18:44	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 18:44	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 18:44	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 18:44	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 18:44	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 18:44	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 18:44	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 18:44	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 18:44	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 18:44	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 18:44	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 18:44	WG994563
Tetrachloroethene	36.1		0.199	0.500	1	07/02/2017 18:44	WG994563
Toluene	0.506		0.412	0.500	1	07/02/2017 18:44	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 18:44	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 18:44	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 18:44	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 18:44	WG994563
Trichloroethene	37.1		0.153	0.500	1	07/02/2017 18:44	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 18:44	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 18:44	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 18:44	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 18:44	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 18:44	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 18:44	WG994563
Vinyl chloride	77.7		0.118	0.500	1	07/02/2017 18:44	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 18:44	WG994563
(S) Toluene-d8	101	✓		80.0-120		07/04/2017 12:08	WG994563
(S) Toluene-d8	106	✓		80.0-120		07/02/2017 18:44	WG994563
(S) Dibromofluoromethane	96.8	✓		76.0-123		07/02/2017 18:44	WG994563
(S) Dibromofluoromethane	117	✓		76.0-123	✓	07/04/2017 12:08	WG994563
(S) 4-Bromofluorobenzene	109	✓		80.0-120		07/04/2017 12:08	WG994563
(S) 4-Bromofluorobenzene	99.1	✓		80.0-120		07/02/2017 18:44	WG994563

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Jc
7/12/17



Collected date/time: 06/26/17 11:15

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Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	486000		2710	20000	1	06/30/2017 21:27	WG994297

¹ Cp

² Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22000		51.9	1000	1	06/28/2017 01:13	WG993484
Nitrate	U		22.7	100	1	06/28/2017 01:13	WG993484
Sulfate	60300		77.4	5000	1	06/28/2017 01:13	WG993484

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	19100		102	1000	1	06/30/2017 21:56	WG994361

⁶ Qc

⁷ Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2660		15.0	100	1	06/30/2017 20:45	WG994449
Manganese	3090		0.250	5.00	1	06/30/2017 20:45	WG994449

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2220		1.44	3.39	5	06/28/2017 14:19	WG993867
Ethane	U		0.296	1.29	1	06/28/2017 13:00	WG993522
Ethene	U		0.422	1.27	1	06/28/2017 13:00	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.49	J ↓	1.05	25.0	1	07/02/2017 19:02	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 19:02	WG994563
Benzene	0.173	J ↓	0.0896	0.500	1	07/02/2017 19:02	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 19:02	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 19:02	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 19:02	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 19:02	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 19:02	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 19:02	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 19:02	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 19:02	WG994563
Carbon disulfide	U	VJ JO	0.101	0.500	1	07/02/2017 19:02	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 19:02	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 19:02	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 19:02	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 19:02	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 19:02	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 19:02	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 19:02	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 19:02	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 19:02	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 19:02	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 19:02	WG994563

*Jc
7/27/17*



Collected date/time: 06/26/17 11:15

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 19:02	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 19:02	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 19:02	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 19:02	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 19:02	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 19:02	WG994563
1,1-Dichloroethene	1.84		0.188	0.500	1	07/02/2017 19:02	WG994563
cis-1,2-Dichloroethene	39.8		0.0933	0.500	1	07/02/2017 19:02	WG994563
trans-1,2-Dichloroethene	1.06		0.152	0.500	1	07/02/2017 19:02	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 19:02	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 19:02	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 19:02	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 19:02	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 19:02	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 19:02	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 19:02	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 19:02	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 19:02	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 19:02	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 19:02	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 19:02	WG994563
Iodomethane	U	UJ JO J3	0.377	10.0	1	07/02/2017 19:02	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 19:02	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 19:02	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 19:02	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 19:02	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 19:02	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 19:02	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 19:02	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 19:02	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 19:02	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 19:02	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 19:02	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 19:02	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 19:02	WG994563
Toluene	0.459	J J	0.412	0.500	1	07/02/2017 19:02	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 19:02	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 19:02	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 19:02	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 19:02	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 19:02	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 19:02	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 19:02	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 19:02	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 19:02	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 19:02	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 19:02	WG994563
Vinyl chloride	6.30		0.118	0.500	1	07/02/2017 19:02	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 19:02	WG994563
(S) Toluene-d8	107	/		80.0-120		07/02/2017 19:02	WG994563
(S) Dibromofluoromethane	95.4	/		76.0-123		07/02/2017 19:02	WG994563
(S) 4-Bromofluorobenzene	100	/		80.0-120		07/02/2017 19:02	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Handwritten signature and date: 7/27/17

K8-062617

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 06/26/17 12:30

L918687

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	97500		2710	20000	1	06/30/2017 12:25	WG994295

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	14700		51.9	1000	1	06/28/2017 01:27	WG993484
Nitrate	307		22.7	100	1	06/28/2017 01:27	WG993484
Sulfate	25800		77.4	5000	1	06/28/2017 01:27	WG993484

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6450		102	1000	1	06/30/2017 22:08	WG994361

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	41.1	J J	15.0	100	1	06/30/2017 20:49	WG994449
Manganese	296		0.250	5.00	1	06/30/2017 20:49	WG994449

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	72.7		0.287	0.678	1	06/28/2017 13:31	WG993522
Ethane	U		0.296	1.29	1	06/28/2017 13:31	WG993522
Ethene	U		0.422	1.27	1	06/28/2017 13:31	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.07	J J	1.05	25.0	1	07/02/2017 19:20	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 19:20	WG994563
Benzene	0.246	J J	0.0896	0.500	1	07/02/2017 19:20	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 19:20	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 19:20	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 19:20	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 19:20	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 19:20	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 19:20	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 19:20	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 19:20	WG994563
Carbon disulfide	U	UJ JO	0.101	0.500	1	07/02/2017 19:20	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 19:20	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 19:20	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 19:20	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 19:20	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 19:20	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 19:20	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 19:20	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 19:20	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 19:20	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 19:20	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 19:20	WG994563

Cp

Tc

Ss

Cn

Sr

Qc

GI

Al

Sc

K8-062617

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 06/26/17 12:30

L918687

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 19:20	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 19:20	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 19:20	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 19:20	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 19:20	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 19:20	WG994563
1,1-Dichloroethene	1.34		0.188	0.500	1	07/02/2017 19:20	WG994563
cis-1,2-Dichloroethene	140		0.0933	0.500	1	07/02/2017 19:20	WG994563
trans-1,2-Dichloroethene	0.750		0.152	0.500	1	07/02/2017 19:20	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 19:20	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 19:20	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 19:20	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 19:20	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 19:20	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 19:20	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 19:20	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 19:20	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 19:20	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 19:20	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 19:20	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 19:20	WG994563
Iodomethane	U	UJ JO J3	0.377	10.0	1	07/02/2017 19:20	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 19:20	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 19:20	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 19:20	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 19:20	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 19:20	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 19:20	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 19:20	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 19:20	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 19:20	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 19:20	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 19:20	WG994563
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 19:20	WG994563
Tetrachloroethene	67.9		0.199	0.500	1	07/02/2017 19:20	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 19:20	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 19:20	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 19:20	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 19:20	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 19:20	WG994563
Trichloroethene	28.7		0.153	0.500	1	07/02/2017 19:20	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 19:20	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 19:20	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 19:20	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 19:20	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 19:20	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 19:20	WG994563
Vinyl chloride	0.456	J ↓	0.118	0.500	1	07/02/2017 19:20	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 19:20	WG994563
(S) Toluene-d8	105	✓		80.0-120		07/02/2017 19:20	WG994563
(S) Dibromofluoromethane	94.8	✓		76.0-123		07/02/2017 19:20	WG994563
(S) 4-Bromofluorobenzene	97.1	✓		80.0-120		07/02/2017 19:20	WG994563

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

J 7/12/17

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	904000		2710	20000	1	06/30/2017 21:41	WG994297

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	11000		51.9	1000	1	06/28/2017 02:39	WG993484
Nitrate	U		22.7	100	1	06/28/2017 02:39	WG993484
Sulfate	47200		77.4	5000	1	06/28/2017 02:39	WG993484

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	11000		204	2000	2	07/01/2017 12:57	WG994888

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	3320		15.0	100	1	06/30/2017 21:10	WG994449
Manganese	6320		0.250	5.00	1	06/30/2017 21:10	WG994449

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	7250		5.74	13.6	20	06/28/2017 14:23	WG993867
Ethane	U		0.296	1.29	1	06/28/2017 13:05	WG993522
Ethene	U		0.422	1.27	1	06/28/2017 13:05	WG993522

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 19:38	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 19:38	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 19:38	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 19:38	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 19:38	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 19:38	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 19:38	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 19:38	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 19:38	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 19:38	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 19:38	WG994563
Carbon disulfide	U	UJ JO	0.101	0.500	1	07/02/2017 19:38	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 19:38	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 19:38	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 19:38	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 19:38	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 19:38	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 19:38	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 19:38	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 19:38	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 19:38	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 19:38	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 19:38	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Handwritten signature and date: 7/27/17

M15-062617

SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.



Collected date/time: 06/26/17 14:50

L918687

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 19:38	WG994563	Cp
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 19:38	WG994563	Tc
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 19:38	WG994563	Ss
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 19:38	WG994563	Cn
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 19:38	WG994563	Si
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 19:38	WG994563	Qc
1,1-Dichloroethene	0.508		0.188	0.500	1	07/02/2017 19:38	WG994563	Gl
cis-1,2-Dichloroethene	25.8		0.0933	0.500	1	07/02/2017 19:38	WG994563	Al
trans-1,2-Dichloroethene	0.523		0.152	0.500	1	07/02/2017 19:38	WG994563	Sc
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 19:38	WG994563	
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 19:38	WG994563	
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 19:38	WG994563	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 19:38	WG994563	
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 19:38	WG994563	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 19:38	WG994563	
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 19:38	WG994563	
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 19:38	WG994563	
Ethylbenzene	U		0.158	0.500	1	07/02/2017 19:38	WG994563	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 19:38	WG994563	
2-Hexanone	U		0.757	5.00	1	07/02/2017 19:38	WG994563	
n-Hexane	U		0.305	5.00	1	07/02/2017 19:38	WG994563	
Iodomethane	U	UJ JO J3	0.377	10.0	1	07/02/2017 19:38	WG994563	
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 19:38	WG994563	
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 19:38	WG994563	
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 19:38	WG994563	
Methylene Chloride	U		1.07	2.50	1	07/02/2017 19:38	WG994563	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 19:38	WG994563	
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 19:38	WG994563	
Naphthalene	U		0.174	2.50	1	07/02/2017 19:38	WG994563	
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 19:38	WG994563	
Styrene	U		0.117	0.500	1	07/02/2017 19:38	WG994563	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 19:38	WG994563	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 19:38	WG994563	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 19:38	WG994563	
Tetrachloroethene	0.233	J J	0.199	0.500	1	07/02/2017 19:38	WG994563	
Toluene	U		0.412	0.500	1	07/02/2017 19:38	WG994563	
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 19:38	WG994563	
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 19:38	WG994563	
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 19:38	WG994563	
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 19:38	WG994563	
Trichloroethene	1.80		0.153	0.500	1	07/02/2017 19:38	WG994563	
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 19:38	WG994563	
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 19:38	WG994563	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 19:38	WG994563	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 19:38	WG994563	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 19:38	WG994563	
Vinyl acetate	U		0.645	5.00	1	07/02/2017 19:38	WG994563	
Vinyl chloride	15.0		0.118	0.500	1	07/02/2017 19:38	WG994563	
Xylenes, Total	U		0.316	1.50	1	07/02/2017 19:38	WG994563	
(S) Toluene-d8	107	✓		80.0-120		07/02/2017 19:38	WG994563	
(S) Dibromofluoromethane	96.5	✓		76.0-123		07/02/2017 19:38	WG994563	
(S) 4-Bromofluorobenzene	99.9	✓		80.0-120		07/02/2017 19:38	WG994563	

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Collected date/time: 06/26/17 00:00

SAMPLE RESULTS - 06

L918687

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/02/2017 13:20	WG994563
Acrylonitrile	U		0.873	5.00	1	07/02/2017 13:20	WG994563
Benzene	U		0.0896	0.500	1	07/02/2017 13:20	WG994563
Bromobenzene	U		0.133	0.500	1	07/02/2017 13:20	WG994563
Bromodichloromethane	U		0.0800	0.500	1	07/02/2017 13:20	WG994563
Bromochloromethane	U		0.145	0.500	1	07/02/2017 13:20	WG994563
Bromoform	U		0.186	0.500	1	07/02/2017 13:20	WG994563
Bromomethane	U		0.157	2.50	1	07/02/2017 13:20	WG994563
n-Butylbenzene	U		0.143	0.500	1	07/02/2017 13:20	WG994563
sec-Butylbenzene	U		0.134	0.500	1	07/02/2017 13:20	WG994563
tert-Butylbenzene	U		0.183	0.500	1	07/02/2017 13:20	WG994563
Carbon disulfide	U	UJ JO	0.101	0.500	1	07/02/2017 13:20	WG994563
Carbon tetrachloride	U		0.159	0.500	1	07/02/2017 13:20	WG994563
Chlorobenzene	U		0.140	0.500	1	07/02/2017 13:20	WG994563
Chlorodibromomethane	U		0.128	0.500	1	07/02/2017 13:20	WG994563
Chloroethane	U		0.141	2.50	1	07/02/2017 13:20	WG994563
Chloroform	U		0.0860	0.500	1	07/02/2017 13:20	WG994563
Chloromethane	U		0.153	1.25	1	07/02/2017 13:20	WG994563
2-Chlorotoluene	U		0.111	0.500	1	07/02/2017 13:20	WG994563
4-Chlorotoluene	U		0.0972	0.500	1	07/02/2017 13:20	WG994563
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/02/2017 13:20	WG994563
1,2-Dibromoethane	U		0.193	0.500	1	07/02/2017 13:20	WG994563
Dibromomethane	U		0.117	0.500	1	07/02/2017 13:20	WG994563
1,2-Dichlorobenzene	U		0.101	0.500	1	07/02/2017 13:20	WG994563
1,3-Dichlorobenzene	U		0.130	0.500	1	07/02/2017 13:20	WG994563
1,4-Dichlorobenzene	U		0.121	0.500	1	07/02/2017 13:20	WG994563
Dichlorodifluoromethane	U		0.127	2.50	1	07/02/2017 13:20	WG994563
1,1-Dichloroethane	U		0.114	0.500	1	07/02/2017 13:20	WG994563
1,2-Dichloroethane	U		0.108	0.500	1	07/02/2017 13:20	WG994563
1,1-Dichloroethene	U		0.188	0.500	1	07/02/2017 13:20	WG994563
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/02/2017 13:20	WG994563
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/02/2017 13:20	WG994563
1,2-Dichloropropane	U		0.190	0.500	1	07/02/2017 13:20	WG994563
1,1-Dichloropropene	U		0.128	0.500	1	07/02/2017 13:20	WG994563
1,3-Dichloropropane	U		0.147	1.00	1	07/02/2017 13:20	WG994563
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/02/2017 13:20	WG994563
trans-1,3-Dichloropropene	U		0.222	1.00	1	07/02/2017 13:20	WG994563
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/02/2017 13:20	WG994563
2,2-Dichloropropane	U		0.0929	0.500	1	07/02/2017 13:20	WG994563
Di-isopropyl ether	U		0.0924	0.500	1	07/02/2017 13:20	WG994563
Ethylbenzene	U		0.158	0.500	1	07/02/2017 13:20	WG994563
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/02/2017 13:20	WG994563
2-Hexanone	U		0.757	5.00	1	07/02/2017 13:20	WG994563
n-Hexane	U		0.305	5.00	1	07/02/2017 13:20	WG994563
Iodomethane	U	UJ JO J3	0.377	10.0	1	07/02/2017 13:20	WG994563
Isopropylbenzene	U		0.126	0.500	1	07/02/2017 13:20	WG994563
p-Isopropyltoluene	U		0.138	0.500	1	07/02/2017 13:20	WG994563
2-Butanone (MEK)	U		1.28	5.00	1	07/02/2017 13:20	WG994563
Methylene Chloride	U		1.07	2.50	1	07/02/2017 13:20	WG994563
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/02/2017 13:20	WG994563
Methyl tert-butyl ether	U		0.102	0.500	1	07/02/2017 13:20	WG994563
Naphthalene	U		0.174	2.50	1	07/02/2017 13:20	WG994563
n-Propylbenzene	U		0.162	0.500	1	07/02/2017 13:20	WG994563
Styrene	U		0.117	0.500	1	07/02/2017 13:20	WG994563
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/02/2017 13:20	WG994563
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/02/2017 13:20	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Handwritten: JC 7/27/17

TRIP BLANK

SAMPLE RESULTS - 06

ONE LAB. NATIONWIDE.



Collected date/time: 06/26/17 00:00

L918687

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/02/2017 13:20	WG994563
Tetrachloroethene	U		0.199	0.500	1	07/02/2017 13:20	WG994563
Toluene	U		0.412	0.500	1	07/02/2017 13:20	WG994563
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/02/2017 13:20	WG994563
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/02/2017 13:20	WG994563
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/02/2017 13:20	WG994563
1,1,2-Trichloroethane	U		0.186	0.500	1	07/02/2017 13:20	WG994563
Trichloroethene	U		0.153	0.500	1	07/02/2017 13:20	WG994563
Trichlorofluoromethane	U		0.130	2.50	1	07/02/2017 13:20	WG994563
1,2,3-Trichloropropane	U		0.247	2.50	1	07/02/2017 13:20	WG994563
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/02/2017 13:20	WG994563
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/02/2017 13:20	WG994563
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/02/2017 13:20	WG994563
Vinyl acetate	U		0.645	5.00	1	07/02/2017 13:20	WG994563
Vinyl chloride	U		0.118	0.500	1	07/02/2017 13:20	WG994563
Xylenes, Total	U		0.316	1.50	1	07/02/2017 13:20	WG994563
(S) Toluene-d8	105	✓		80.0-120		07/02/2017 13:20	WG994563
(S) Dibromofluoromethane	96.1	✓		76.0-123		07/02/2017 13:20	WG994563
(S) 4-Bromofluorobenzene	101	✓		80.0-120		07/02/2017 13:20	WG994563

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Handwritten signature and date: JL 7/27/17

July 07, 2017

PES Environmental, Inc.- WA

Sample Delivery Group: L919100
Samples Received: 06/28/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



MW108-062717 L919100-01 GW

Collected by
Shannon McKernan

Collected date/time
06/27/17 09:00

Received date/time
06/28/17 12:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG996022	1	07/06/17 20:53	07/06/17 20:53	MCG
Wet Chemistry by Method 9056A	WG993859	1	06/29/17 03:21	06/29/17 03:21	DR
Wet Chemistry by Method 9056A	WG994712	5	07/01/17 19:32	07/01/17 19:32	CSU
Wet Chemistry by Method 9060A	WG994888	1	07/01/17 19:32	07/01/17 19:32	SJM
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/05/17 20:57	LAT
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/05/17 23:30	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993916	1	07/05/17 11:16	07/05/17 11:16	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG995826	5	07/05/17 14:58	07/05/17 14:58	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG995407	1	07/04/17 12:33	07/04/17 12:33	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG995407	10	07/05/17 11:48	07/05/17 11:48	LRL

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW109-062717 L919100-02 GW

Collected by
Shannon McKernan

Collected date/time
06/27/17 10:50

Received date/time
06/28/17 12:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG996022	1	07/06/17 20:59	07/06/17 20:59	MCG
Wet Chemistry by Method 9056A	WG993859	1	06/29/17 04:08	06/29/17 04:08	DR
Wet Chemistry by Method 9060A	WG995857	2	07/06/17 10:55	07/06/17 10:55	CSU
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/05/17 21:46	LAT
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/06/17 00:06	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993916	1	07/05/17 11:19	07/05/17 11:19	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG995826	5	07/05/17 15:00	07/05/17 15:00	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG995407	1	07/04/17 12:58	07/04/17 12:58	JHH

MW110-062717 L919100-03 GW

Collected by
Shannon McKernan

Collected date/time
06/27/17 12:35

Received date/time
06/28/17 12:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG996022	1	07/06/17 21:09	07/06/17 21:09	MCG
Wet Chemistry by Method 9056A	WG993859	1	06/29/17 04:24	06/29/17 04:24	DR
Wet Chemistry by Method 9056A	WG994713	10	07/01/17 16:31	07/01/17 16:31	SAM
Wet Chemistry by Method 9060A	WG995102	1	07/03/17 19:19	07/03/17 19:19	CSU
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/05/17 21:50	LAT
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/06/17 00:11	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993916	1	07/05/17 11:21	07/05/17 11:21	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG995407	1	07/04/17 13:23	07/04/17 13:23	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG995407	50	07/05/17 12:02	07/05/17 12:02	LRL

N7-062717 L919100-04 GW

Collected by
Shannon McKernan

Collected date/time
06/27/17 15:10

Received date/time
06/28/17 12:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG996022	1	07/06/17 21:37	07/06/17 21:37	MCG
Wet Chemistry by Method 9056A	WG993859	1	06/29/17 05:12	06/29/17 05:12	DR
Wet Chemistry by Method 9060A	WG995102	1	07/03/17 19:30	07/03/17 19:30	CSU
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/05/17 21:53	LAT
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/06/17 00:16	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993916	1	07/05/17 11:23	07/05/17 11:23	AMC
Volatile Organic Compounds (GC) by Method RSK175	WG995826	20	07/05/17 15:02	07/05/17 15:02	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG995407	1	07/04/17 13:48	07/04/17 13:48	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG995407	10	07/05/17 12:15	07/05/17 12:15	LRL



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

Sample Handling and Receiving

VOC pH outside of method requirement.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L919100-03	MW110-062717	8260C

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	679000		2710	20000	1	07/06/2017 20:53	WG996022

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	20600		51.9	1000	1	06/29/2017 03:21	WG993859
Nitrate	U		22.7	100	1	06/29/2017 03:21	WG993859
Sulfate	101000		387	25000	5	07/01/2017 19:32	WG994712

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	8620		102	1000	1	07/01/2017 19:32	WG994888

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	21800	<u>V</u>	15.0	100	1	07/05/2017 23:30	WG995343
Manganese	2200	<u>V</u>	0.250	5.00	1	07/05/2017 20:57	WG995343

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	3940		1.44	3.39	5	07/05/2017 14:58	WG995826
Ethane	47.8		0.296	1.29	1	07/05/2017 11:16	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:16	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.03	<u>J</u>	1.05	25.0	1	07/04/2017 12:33	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 12:33	WG995407
Benzene	1.26		0.0896	0.500	1	07/04/2017 12:33	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 12:33	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 12:33	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 12:33	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 12:33	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 12:33	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 12:33	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 12:33	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 12:33	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 12:33	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 12:33	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 12:33	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 12:33	WG995407
Chloroethane	U		0.141	2.50	1	07/04/2017 12:33	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 12:33	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 12:33	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 12:33	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 12:33	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 12:33	WG995407
1,2-Dibromoethane	U	<u>JO J4</u>	0.193	0.500	1	07/04/2017 12:33	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 12:33	WG995407



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 12:33	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 12:33	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 12:33	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 12:33	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 12:33	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 12:33	WG995407
1,1-Dichloroethene	0.512		0.188	0.500	1	07/04/2017 12:33	WG995407
cis-1,2-Dichloroethene	165		0.0933	0.500	1	07/04/2017 12:33	WG995407
trans-1,2-Dichloroethene	0.748		0.152	0.500	1	07/04/2017 12:33	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 12:33	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 12:33	WG995407
1,3-Dichloropropane	U	JO J4	0.147	1.00	1	07/04/2017 12:33	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 12:33	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 12:33	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 12:33	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 12:33	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 12:33	WG995407
Ethylbenzene	U	JO J4	0.158	0.500	1	07/04/2017 12:33	WG995407
Hexachloro-1,3-butadiene	U	JO	0.157	1.00	1	07/04/2017 12:33	WG995407
2-Hexanone	U	JO	0.757	5.00	1	07/04/2017 12:33	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 12:33	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 12:33	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 12:33	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 12:33	WG995407
2-Butanone (MEK)	U	JO	1.28	5.00	1	07/04/2017 12:33	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 12:33	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 12:33	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 12:33	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 12:33	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 12:33	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 12:33	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 12:33	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 12:33	WG995407
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 12:33	WG995407
Tetrachloroethene	194		1.99	5.00	10	07/05/2017 11:48	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 12:33	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 12:33	WG995407
1,2,4-Trichlorobenzene	U	JO	0.355	0.500	1	07/04/2017 12:33	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 12:33	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 12:33	WG995407
Trichloroethene	22.1		0.153	0.500	1	07/04/2017 12:33	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 12:33	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 12:33	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 12:33	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 12:33	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 12:33	WG995407
Vinyl acetate	U	JO J4	0.645	5.00	1	07/04/2017 12:33	WG995407
Vinyl chloride	52.8		0.118	0.500	1	07/04/2017 12:33	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 12:33	WG995407
(S) Toluene-d8	99.5			80.0-120		07/05/2017 11:48	WG995407
(S) Toluene-d8	100			80.0-120		07/04/2017 12:33	WG995407
(S) Dibromofluoromethane	87.7			76.0-123		07/05/2017 11:48	WG995407
(S) Dibromofluoromethane	113			76.0-123		07/04/2017 12:33	WG995407
(S) 4-Bromofluorobenzene	112			80.0-120		07/05/2017 11:48	WG995407
(S) 4-Bromofluorobenzene	107			80.0-120		07/04/2017 12:33	WG995407

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	693000		2710	20000	1	07/06/2017 20:59	WG996022

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	13300		51.9	1000	1	06/29/2017 04:08	WG993859
Nitrate	U		22.7	100	1	06/29/2017 04:08	WG993859
Sulfate	42500		77.4	5000	1	06/29/2017 04:08	WG993859

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	12200		204	2000	2	07/06/2017 10:55	WG995857

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	14600		15.0	100	1	07/06/2017 00:06	WG995343
Manganese	3900		0.250	5.00	1	07/05/2017 21:46	WG995343

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	2540		1.44	3.39	5	07/05/2017 15:00	WG995826
Ethane	8.65		0.296	1.29	1	07/05/2017 11:19	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:19	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.20	J	1.05	25.0	1	07/04/2017 12:58	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 12:58	WG995407
Benzene	U		0.0896	0.500	1	07/04/2017 12:58	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 12:58	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 12:58	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 12:58	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 12:58	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 12:58	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 12:58	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 12:58	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 12:58	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 12:58	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 12:58	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 12:58	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 12:58	WG995407
Chloroethane	U		0.141	2.50	1	07/04/2017 12:58	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 12:58	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 12:58	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 12:58	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 12:58	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 12:58	WG995407
1,2-Dibromoethane	U	JO J4	0.193	0.500	1	07/04/2017 12:58	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 12:58	WG995407



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 12:58	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 12:58	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 12:58	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 12:58	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 12:58	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 12:58	WG995407
1,1-Dichloroethene	0.583		0.188	0.500	1	07/04/2017 12:58	WG995407
cis-1,2-Dichloroethene	163		0.0933	0.500	1	07/04/2017 12:58	WG995407
trans-1,2-Dichloroethene	1.17		0.152	0.500	1	07/04/2017 12:58	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 12:58	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 12:58	WG995407
1,3-Dichloropropane	U	JO J4	0.147	1.00	1	07/04/2017 12:58	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 12:58	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 12:58	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 12:58	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 12:58	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 12:58	WG995407
Ethylbenzene	U	JO J4	0.158	0.500	1	07/04/2017 12:58	WG995407
Hexachloro-1,3-butadiene	U	JO	0.157	1.00	1	07/04/2017 12:58	WG995407
2-Hexanone	U	JO	0.757	5.00	1	07/04/2017 12:58	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 12:58	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 12:58	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 12:58	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 12:58	WG995407
2-Butanone (MEK)	U	JO	1.28	5.00	1	07/04/2017 12:58	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 12:58	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 12:58	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 12:58	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 12:58	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 12:58	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 12:58	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 12:58	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 12:58	WG995407
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 12:58	WG995407
Tetrachloroethene	9.69	JO	0.199	0.500	1	07/04/2017 12:58	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 12:58	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 12:58	WG995407
1,2,4-Trichlorobenzene	U	JO	0.355	0.500	1	07/04/2017 12:58	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 12:58	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 12:58	WG995407
Trichloroethene	141		0.153	0.500	1	07/04/2017 12:58	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 12:58	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 12:58	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 12:58	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 12:58	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 12:58	WG995407
Vinyl acetate	U	JO J4	0.645	5.00	1	07/04/2017 12:58	WG995407
Vinyl chloride	6.06		0.118	0.500	1	07/04/2017 12:58	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 12:58	WG995407
(S) Toluene-d8	99.8			80.0-120		07/04/2017 12:58	WG995407
(S) Dibromofluoromethane	117			76.0-123		07/04/2017 12:58	WG995407
(S) 4-Bromofluorobenzene	108			80.0-120		07/04/2017 12:58	WG995407

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	516000		2710	20000	1	07/06/2017 21:09	WG996022

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	27000		51.9	1000	1	06/29/2017 04:24	WG993859
Nitrate	U		22.7	100	1	06/29/2017 04:24	WG993859
Sulfate	160000		774	50000	10	07/01/2017 16:31	WG994713

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	4910		102	1000	1	07/03/2017 19:19	WG995102

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	115	<u>B</u>	15.0	100	1	07/06/2017 00:11	WG995343
Manganese	2130		0.250	5.00	1	07/05/2017 21:50	WG995343

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	95.5		0.287	0.678	1	07/05/2017 11:21	WG993916
Ethane	17.4		0.296	1.29	1	07/05/2017 11:21	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:21	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/04/2017 13:23	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 13:23	WG995407
Benzene	U		0.0896	0.500	1	07/04/2017 13:23	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 13:23	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 13:23	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 13:23	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 13:23	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 13:23	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 13:23	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 13:23	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 13:23	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 13:23	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 13:23	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 13:23	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 13:23	WG995407
Chloroethane	U		0.141	2.50	1	07/04/2017 13:23	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 13:23	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 13:23	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 13:23	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 13:23	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 13:23	WG995407
1,2-Dibromoethane	U	<u>JO J4</u>	0.193	0.500	1	07/04/2017 13:23	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 13:23	WG995407

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 13:23	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 13:23	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 13:23	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 13:23	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 13:23	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 13:23	WG995407
1,1-Dichloroethene	5.30		0.188	0.500	1	07/04/2017 13:23	WG995407
cis-1,2-Dichloroethene	1120		4.66	25.0	50	07/05/2017 12:02	WG995407
trans-1,2-Dichloroethene	2.66		0.152	0.500	1	07/04/2017 13:23	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 13:23	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 13:23	WG995407
1,3-Dichloropropane	U	JO J4	0.147	1.00	1	07/04/2017 13:23	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 13:23	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 13:23	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 13:23	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 13:23	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 13:23	WG995407
Ethylbenzene	U	JO J4	0.158	0.500	1	07/04/2017 13:23	WG995407
Hexachloro-1,3-butadiene	U	JO	0.157	1.00	1	07/04/2017 13:23	WG995407
2-Hexanone	U	JO	0.757	5.00	1	07/04/2017 13:23	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 13:23	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 13:23	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 13:23	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 13:23	WG995407
2-Butanone (MEK)	U	JO	1.28	5.00	1	07/04/2017 13:23	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 13:23	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 13:23	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 13:23	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 13:23	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 13:23	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 13:23	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 13:23	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 13:23	WG995407
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 13:23	WG995407
Tetrachloroethene	259		9.95	25.0	50	07/05/2017 12:02	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 13:23	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 13:23	WG995407
1,2,4-Trichlorobenzene	U	JO	0.355	0.500	1	07/04/2017 13:23	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 13:23	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 13:23	WG995407
Trichloroethene	176		0.153	0.500	1	07/04/2017 13:23	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 13:23	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 13:23	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 13:23	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 13:23	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 13:23	WG995407
Vinyl acetate	U	JO J4	0.645	5.00	1	07/04/2017 13:23	WG995407
Vinyl chloride	152		0.118	0.500	1	07/04/2017 13:23	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 13:23	WG995407
(S) Toluene-d8	100			80.0-120		07/05/2017 12:02	WG995407
(S) Toluene-d8	100			80.0-120		07/04/2017 13:23	WG995407
(S) Dibromofluoromethane	89.2			76.0-123		07/05/2017 12:02	WG995407
(S) Dibromofluoromethane	117			76.0-123		07/04/2017 13:23	WG995407
(S) 4-Bromofluorobenzene	111			80.0-120		07/05/2017 12:02	WG995407
(S) 4-Bromofluorobenzene	106			80.0-120		07/04/2017 13:23	WG995407

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	235000		2710	20000	1	07/06/2017 21:37	WG996022

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	8760		51.9	1000	1	06/29/2017 05:12	WG993859
Nitrate	6290		22.7	100	1	06/29/2017 05:12	WG993859
Sulfate	48400		77.4	5000	1	06/29/2017 05:12	WG993859

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2710		102	1000	1	07/03/2017 19:30	WG995102

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	1450		15.0	100	1	07/06/2017 00:16	WG995343
Manganese	3310		0.250	5.00	1	07/05/2017 21:53	WG995343

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	8430		5.74	13.6	20	07/05/2017 15:02	WG995826
Ethane	U		0.296	1.29	1	07/05/2017 11:23	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:23	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.41	J	1.05	25.0	1	07/04/2017 13:48	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 13:48	WG995407
Benzene	U		0.0896	0.500	1	07/04/2017 13:48	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 13:48	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 13:48	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 13:48	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 13:48	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 13:48	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 13:48	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 13:48	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 13:48	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 13:48	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 13:48	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 13:48	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 13:48	WG995407
Chloroethane	0.313	J	0.141	2.50	1	07/04/2017 13:48	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 13:48	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 13:48	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 13:48	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 13:48	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 13:48	WG995407
1,2-Dibromoethane	U	JO J4	0.193	0.500	1	07/04/2017 13:48	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 13:48	WG995407



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 13:48	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 13:48	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 13:48	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 13:48	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 13:48	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 13:48	WG995407
1,1-Dichloroethene	1.00		0.188	0.500	1	07/04/2017 13:48	WG995407
cis-1,2-Dichloroethene	153		0.933	5.00	10	07/05/2017 12:15	WG995407
trans-1,2-Dichloroethene	0.955		0.152	0.500	1	07/04/2017 13:48	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 13:48	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 13:48	WG995407
1,3-Dichloropropane	U	JO J4	0.147	1.00	1	07/04/2017 13:48	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 13:48	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 13:48	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 13:48	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 13:48	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 13:48	WG995407
Ethylbenzene	U	JO J4	0.158	0.500	1	07/04/2017 13:48	WG995407
Hexachloro-1,3-butadiene	U	JO	0.157	1.00	1	07/04/2017 13:48	WG995407
2-Hexanone	U	JO	0.757	5.00	1	07/04/2017 13:48	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 13:48	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 13:48	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 13:48	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 13:48	WG995407
2-Butanone (MEK)	U	JO	1.28	5.00	1	07/04/2017 13:48	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 13:48	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 13:48	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 13:48	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 13:48	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 13:48	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 13:48	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 13:48	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 13:48	WG995407
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 13:48	WG995407
Tetrachloroethene	205		1.99	5.00	10	07/05/2017 12:15	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 13:48	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 13:48	WG995407
1,2,4-Trichlorobenzene	U	JO	0.355	0.500	1	07/04/2017 13:48	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 13:48	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 13:48	WG995407
Trichloroethene	85.1		0.153	0.500	1	07/04/2017 13:48	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 13:48	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 13:48	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 13:48	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 13:48	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 13:48	WG995407
Vinyl acetate	U	JO J4	0.645	5.00	1	07/04/2017 13:48	WG995407
Vinyl chloride	0.386	J	0.118	0.500	1	07/04/2017 13:48	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 13:48	WG995407
(S) Toluene-d8	99.0			80.0-120		07/04/2017 13:48	WG995407
(S) Toluene-d8	98.9			80.0-120		07/05/2017 12:15	WG995407
(S) Dibromofluoromethane	117			76.0-123		07/04/2017 13:48	WG995407
(S) Dibromofluoromethane	88.7			76.0-123		07/05/2017 12:15	WG995407
(S) 4-Bromofluorobenzene	110			80.0-120		07/04/2017 13:48	WG995407
(S) 4-Bromofluorobenzene	110			80.0-120		07/05/2017 12:15	WG995407

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3231561-3 07/06/17 18:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3220	J	2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L919100-04 Original Sample (OS) • Duplicate (DUP)

(OS) L919100-04 07/06/17 21:37 • (DUP) R3231561-7 07/06/17 21:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	235000	235000	1	0.000		20

L919761-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919761-01 07/06/17 19:05 • (DUP) R3231561-4 07/06/17 19:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	83600	84000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231561-5 07/06/17 19:47 • (LCSD) R3231561-6 07/06/17 21:28

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	107000	108000	107	108	85.0-115			1.00	20



Method Blank (MB)

(MB) R3229658-1 06/28/17 06:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	316	J	77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L918989-03 Original Sample (OS) • Duplicate (DUP)

(OS) L918989-03 06/28/17 19:23 • (DUP) R3229658-4 06/28/17 19:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	77900	78300	1	0		15
Sulfate	42300	42700	1	1		15

L919026-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919026-01 06/28/17 22:50 • (DUP) R3229658-5 06/28/17 23:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	63400	63300	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3229658-2 06/28/17 06:52 • (LCSD) R3229658-3 06/28/17 07:08

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39700	39800	99	99	80-120			0	15
Nitrate	8000	8120	8160	102	102	80-120			0	15
Sulfate	40000	40000	40300	100	101	80-120			1	15

L919026-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L919026-01 06/28/17 22:50 • (MS) R3229658-6 06/28/17 23:22

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	63400	109000	92	1	80-120	E



L919100-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919100-03 06/29/17 04:24 • (MS) R3229658-7 06/29/17 04:40 • (MSD) R3229658-8 06/29/17 04:56

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Chloride	50000	27000	75300	75000	97	96	1	80-120			0	15

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230717-1 07/01/17 08:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L919039-05 Original Sample (OS) • Duplicate (DUP)

(OS) L919039-05 07/01/17 11:50 • (DUP) R3230717-4 07/01/17 12:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	5640	5590	1	1		15

L919039-09 Original Sample (OS) • Duplicate (DUP)

(OS) L919039-09 07/01/17 14:19 • (DUP) R3230717-6 07/01/17 14:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	26000	25900	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230717-2 07/01/17 08:15 • (LCSD) R3230717-3 07/01/17 08:30

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	38800	38700	97	97	80-120			0	15

L919039-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L919039-06 07/01/17 12:20 • (MS) R3230717-5 07/01/17 12:35

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	6720	57000	101	1	80-120	



Method Blank (MB)

(MB) R3230924-1 07/01/17 14:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230924-2 07/01/17 14:47 • (LCSD) R3230924-3 07/01/17 14:59

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	41000	40800	102	102	80-120			0	15

L919204-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919204-02 07/01/17 21:28 • (MS) R3230924-7 07/01/17 21:41 • (MSD) R3230924-8 07/01/17 21:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	ND	50400	50300	101	101	1	80-120			0	15

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230519-1 07/01/17 09:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	202	J	102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L919100-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919100-01 07/01/17 19:32 • (DUP) R3230519-7 07/01/17 19:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	8620	8630	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230519-2 07/01/17 12:35 • (LCSD) R3230519-4 07/01/17 15:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	74500	74100	99	99	85-115			0	20

L919056-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919056-02 07/01/17 16:23 • (MS) R3230519-5 07/01/17 16:37 • (MSD) R3230519-6 07/01/17 16:51

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	5820	55500	55600	99	100	1	80-120			0	20



Method Blank (MB)

(MB) R3231083-1 07/03/17 15:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

L918989-02 Original Sample (OS) • Duplicate (DUP)

(OS) L918989-02 07/03/17 22:08 • (DUP) R3231083-7 07/03/17 22:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	344	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231083-2 07/03/17 16:30 • (LCSD) R3231083-5 07/03/17 18:32

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	72600	72400	97	97	85-115			0	20

L919032-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919032-02 07/03/17 17:16 • (MS) R3231083-3 07/03/17 17:30 • (MSD) R3231083-4 07/03/17 17:44

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	1670	50800	50600	98	98	1	80-120			0	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3231654-1 07/06/17 10:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	219	J	102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L919460-03 Original Sample (OS) • Duplicate (DUP)

(OS) L919460-03 07/06/17 15:07 • (DUP) R3231654-6 07/06/17 15:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	4160	4210	1	1		20

L919576-02 Original Sample (OS) • Duplicate (DUP)

(OS) L919576-02 07/06/17 21:38 • (DUP) R3231654-7 07/06/17 21:49

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	4740	4780	1	1		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231654-2 07/06/17 11:23 • (LCSD) R3231654-3 07/06/17 11:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	74700	74300	100	99	85-115			1	20

L919460-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919460-02 07/06/17 14:28 • (MS) R3231654-4 07/06/17 14:42 • (MSD) R3231654-5 07/06/17 14:55

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	13300	63200	62900	100	99	1	80-120			0	20



Method Blank (MB)

(MB) R3231167-7 07/05/17 20:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Manganese	U		0.250	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Method Blank (MB)

(MB) R3231189-1 07/05/17 23:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	20.0	J	15.0	100

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231167-8 07/05/17 20:50 • (LCSD) R3231167-9 07/05/17 20:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Manganese	50.0	54.9	54.6	110	109	80-120			1	20

⁷ Gl

⁸ Al

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231189-2 07/05/17 23:19 • (LCSD) R3231189-3 07/05/17 23:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5660	5690	113	114	80-120			0	20

⁹ Sc

L919100-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919100-01 07/05/17 20:57 • (MS) R3231167-11 07/05/17 21:04 • (MSD) R3231167-12 07/05/17 21:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Manganese	50.0	2200	2250	2230	84	55	1	75-125		J	1	20

L919100-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919100-01 07/05/17 23:30 • (MS) R3231189-5 07/05/17 23:41 • (MSD) R3231189-6 07/05/17 23:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	21800	25000	25800	64	79	1	75-125	J		3	20



Method Blank (MB)

(MB) R3230960-1 07/05/17 10:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L918982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918982-01 07/05/17 10:37 • (DUP) R3230960-2 07/05/17 11:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	0.000	1	0.000		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

L919503-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919503-01 07/05/17 11:38 • (DUP) R3230960-3 07/05/17 12:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	3250	3450	1	5.86	E	20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230960-4 07/05/17 12:06 • (LCSD) R3230960-5 07/05/17 12:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	73.8	71.1	109	105	70.0-130			3.72	20
Ethane	129	140	125	109	97.2	70.0-130			11.1	20
Ethene	127	134	119	106	94.1	70.0-130			11.5	20



Method Blank (MB)

(MB) R3231080-1 07/05/17 14:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		0.287	0.678

¹ Cp

² Tc

³ Ss

L919403-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919403-01 07/05/17 15:05 • (DUP) R3231080-2 07/05/17 15:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	11800	11400	20	3.29		20

⁴ Cn

⁵ Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231080-3 07/05/17 15:18 • (LCSD) R3231080-4 07/05/17 15:21

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	71.4	70.9	105	105	70.0-130			0.650	20

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230933-3 07/04/17 07:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
2-Chlorotoluene	U		0.111	0.500
Chloroform	U		0.0860	0.500
4-Chlorotoluene	U		0.0972	0.500
Chloromethane	U		0.153	1.25
Dibromomethane	U		0.117	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,1-Dichloropropene	U		0.128	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500
cis-1,3-Dichloropropene	U		0.0976	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3230933-3 07/04/17 07:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
trans-1,3-Dichloropropene	U		0.222	0.500
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Ethylbenzene	U		0.158	0.500
2-Hexanone	U		0.757	5.00
Isopropylbenzene	U		0.126	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
1,2,3-Trichloropropane	U		0.247	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
Tetrachloroethene	U		0.199	0.500
Vinyl acetate	U		0.645	5.00
Toluene	U		0.412	0.500
Xylenes, Total	U		0.316	1.50
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	116			76.0-123
(S) 4-Bromofluorobenzene	107			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230933-1 07/04/17 05:05 • (LCSD) R3230933-2 07/04/17 05:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	125	140	144	112	115	60.0-142			2.36	20
Bromobenzene	25.0	22.5	22.0	89.9	88.1	79.0-120			1.98	20
2-Chlorotoluene	25.0	22.6	22.5	90.6	90.0	74.0-122			0.610	20
4-Chlorotoluene	25.0	22.0	22.0	88.1	88.1	79.0-120			0.0500	20
Dibromomethane	25.0	24.3	24.5	97.2	97.9	78.0-120			0.700	20
1,1-Dichloropropene	25.0	25.3	25.6	101	102	71.0-129			1.32	20
1,3-Dichloropropane	25.0	19.2	19.4	76.8	77.4	80.0-121	J4	J4	0.790	20
Acetone	125	125	143	99.8	114	10.0-160			13.5	23
Benzene	25.0	25.4	25.8	102	103	69.0-123			1.30	20
trans-1,4-Dichloro-2-butene	25.0	21.8	21.5	87.0	86.0	55.0-134			1.22	20
2,2-Dichloropropane	25.0	23.5	24.4	94.1	97.7	60.0-125			3.74	20
Bromodichloromethane	25.0	24.1	23.8	96.4	95.2	76.0-120			1.32	20
Di-isopropyl ether	25.0	27.3	27.8	109	111	59.0-133			1.71	20
Bromochloromethane	25.0	25.1	25.4	100	102	76.0-122			1.39	20
Bromoform	25.0	25.7	25.4	103	102	67.0-132			1.02	20
Hexachloro-1,3-butadiene	25.0	19.1	20.0	76.3	80.2	64.0-131			4.97	20
Bromomethane	25.0	29.0	28.2	116	113	18.0-160			2.74	20
n-Hexane	25.0	24.6	24.2	98.4	96.8	56.0-124			1.67	20
Iodomethane	125	125	128	100	103	57.0-140			2.47	20
n-Butylbenzene	25.0	21.6	22.0	86.6	88.0	72.0-126			1.68	20
sec-Butylbenzene	25.0	22.2	22.5	88.9	90.1	74.0-121			1.34	20
tert-Butylbenzene	25.0	22.0	22.1	87.8	88.5	75.0-122			0.810	20
Carbon disulfide	25.0	27.7	28.6	111	115	55.0-127			3.48	20
Carbon tetrachloride	25.0	24.5	24.7	98.1	98.7	63.0-122			0.650	20
Chlorobenzene	25.0	20.0	20.9	80.0	83.6	79.0-121			4.36	20
Chlorodibromomethane	25.0	20.6	21.1	82.5	84.2	75.0-125			2.09	20
Chloroethane	25.0	23.6	23.9	94.3	95.5	47.0-152			1.26	20
Chloroform	25.0	25.6	26.1	102	104	72.0-121			1.95	20
1,1,1,2-Tetrachloroethane	25.0	21.9	23.2	87.8	92.9	75.0-122			5.65	20
Chloromethane	25.0	22.5	23.2	90.1	92.9	48.0-139			3.07	20
1,2-Dibromo-3-Chloropropane	25.0	23.4	25.0	93.5	100	64.0-127			6.69	20
1,2-Dibromoethane	25.0	18.6	19.2	74.4	76.8	77.0-123	J4	J4	3.23	20
1,2-Dichlorobenzene	25.0	21.7	21.8	86.8	87.4	80.0-120			0.630	20
1,3-Dichlorobenzene	25.0	21.6	21.8	86.3	87.2	72.0-123			1.04	20
1,4-Dichlorobenzene	25.0	21.4	21.6	85.5	86.4	77.0-120			1.03	20
Dichlorodifluoromethane	25.0	23.8	23.5	95.2	93.9	49.0-155			1.38	20
1,2,3-Trichloropropane	25.0	24.3	23.6	97.1	94.5	72.0-124			2.68	20
1,1-Dichloroethane	25.0	26.8	27.5	107	110	70.0-126			2.70	20
1,2,3-Trimethylbenzene	25.0	22.2	22.6	88.8	90.3	75.0-120			1.65	20
1,2-Dichloroethane	25.0	25.5	25.8	102	103	67.0-126			1.14	20

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230933-1 07/04/17 05:05 • (LCSD) R3230933-2 07/04/17 05:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	25.0	25.1	26.0	100	104	64.0-129			3.40	20
cis-1,2-Dichloroethene	25.0	25.1	25.7	100	103	73.0-120			2.21	20
Vinyl acetate	125	51.9	54.9	41.5	43.9	46.0-160	J4	J4	5.55	20
trans-1,2-Dichloroethene	25.0	24.9	25.7	99.5	103	71.0-121			3.33	20
1,2-Dichloropropane	25.0	25.4	25.5	101	102	75.0-125			0.550	20
Xylenes, Total	75.0	61.7	64.8	82.3	86.4	77.0-120			4.90	20
cis-1,3-Dichloropropene	25.0	21.3	22.2	85.3	88.7	79.0-123			3.96	20
trans-1,3-Dichloropropene	25.0	21.4	21.6	85.8	86.4	74.0-127			0.710	20
Ethylbenzene	25.0	19.2	20.1	76.7	80.5	77.0-120	J4		4.77	20
2-Hexanone	125	96.5	101	77.2	80.5	58.0-147			4.16	20
Isopropylbenzene	25.0	21.5	21.8	85.9	87.1	75.0-120			1.43	20
p-Isopropyltoluene	25.0	21.7	21.9	86.6	87.5	74.0-126			0.970	20
2-Butanone (MEK)	125	92.4	97.5	73.9	78.0	37.0-158			5.34	20
Methylene Chloride	25.0	25.7	26.1	103	105	66.0-121			1.51	20
4-Methyl-2-pentanone (MIBK)	125	106	110	84.8	88.0	59.0-143			3.77	20
Methyl tert-butyl ether	25.0	26.5	26.5	106	106	64.0-123			0.210	20
Naphthalene	25.0	21.1	22.2	84.3	88.9	62.0-128			5.32	20
n-Propylbenzene	25.0	21.8	21.9	87.4	87.4	79.0-120			0.0200	20
Styrene	25.0	22.1	21.9	88.4	87.6	78.0-124			0.890	20
1,1,2,2-Tetrachloroethane	25.0	21.6	21.5	86.4	86.2	71.0-122			0.280	20
Tetrachloroethene	25.0	19.3	20.4	77.0	81.4	70.0-127			5.53	20
Toluene	25.0	20.6	21.4	82.5	85.7	77.0-120			3.87	20
1,1,2-Trichlorotrifluoroethane	25.0	26.7	26.9	107	107	61.0-136			0.700	20
1,2,3-Trichlorobenzene	25.0	19.7	20.8	78.7	83.1	61.0-133			5.47	20
1,2,4-Trichlorobenzene	25.0	18.7	20.0	74.8	79.9	69.0-129			6.51	20
1,1,1-Trichloroethane	25.0	25.1	25.5	100	102	68.0-122			1.43	20
1,1,2-Trichloroethane	25.0	20.4	20.0	81.5	79.9	78.0-120			2.09	20
Trichloroethene	25.0	24.9	24.9	99.7	99.4	78.0-120			0.280	20
Trichlorofluoromethane	25.0	23.4	23.8	93.5	95.3	56.0-137			1.95	20
1,2,4-Trimethylbenzene	25.0	22.7	22.9	90.7	91.7	75.0-120			1.10	20
1,3,5-Trimethylbenzene	25.0	22.2	22.4	88.6	89.5	75.0-120			1.02	20
Vinyl chloride	25.0	24.2	24.8	96.8	99.1	64.0-133			2.32	20
(S) Toluene-d8				100	104	80.0-120				
(S) Dibromofluoromethane				115	116	76.0-123				
(S) 4-Bromofluorobenzene				109	107	80.0-120				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: Calibration verification outside of acceptance limits. Result is estimated.
J4	The associated batch QC was outside the established quality control range for accuracy.
V	The sample concentration is too high to evaluate accurate spike recoveries.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



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 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

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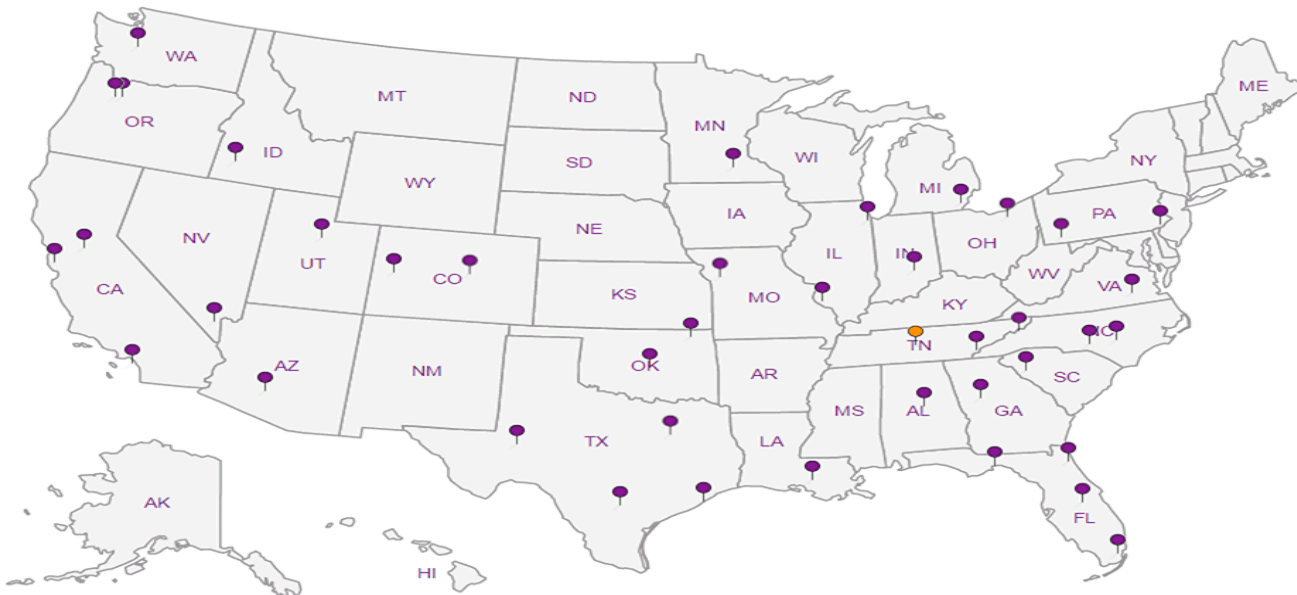
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres
Chk

Report to:
Bill Haldeman

Email To: bhaldean@pesenv.com

Project
Description: **American Linen Supply**

City/State
Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)

Same Day _____ Five Day _____
Next Day _____ 5 Day (Rad Only) _____
Two Day _____ 10 Day (Rad Only) _____
Three Day _____

Quote #

Date Results Needed

Immediately
Packed on Ice N _____ Y **X**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative					Remarks	Sample # (lab only)	
							*Alk, Cl, NO3, SO4 250mlHDPE-NoPres	NWTPHGX 40mlAmb-HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	low level 8260C 40mlAmb-HCl			low level RSK175 40mlAmb-HCl
MW108-062717	GRAB	GW	45	6/27/17	09:00	9	X	X	X	X	X	X		01
MW109-062717	↓	GW	40	↓	10:50	9	X	X	X	X	X	X		02
MW110-062717	↓	GW	40	↓	12:35	9	X	X	X	X	X	X		03
N7-062717	↓	GW	28.5	↓	15:10	9	X	X	X	X	X	X		04
		GW												
		GW												
		GW												
		GW												
		GW												
		GW												

Chain of Custody Page ___ of ___



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **919100**
G207

Acctnum: **PESENVSWA**
Template: **T124201**
Prelogin: **P603202**
TSR: **110 - Brian Ford**
PB: **5-31-17**

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks: *NO3 nitrate has a 48 hour holding time

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
UPS _____ FedEx Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact: NF Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/27/17	Time: 1525	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> HCL / MeOH TBR	Temp: _____ °C Bottles Received: _____	if preservation required by Login: Date/Time
Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/27/17	Time: 1600	Received by: (Signature) <i>[Signature]</i>	Temp: 4.0 °C Bottles Received: 36	Hold:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 6-28-17 Time: 1230	Condition: NCF / OK	

MEMORANDUM

TO: Project File **DATE:** July 26, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 27, 2017- Groundwater Samples
LAB: ESC Lab ID L919100

Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 27, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L919100. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L919100 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 4.0 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

All samples were analyzed for dissolved gases within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

All samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

All samples were analyzed within the USEPA recommended holding time of 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues were noted by ESC for 1,2-dibromoethane, 1,3-dichloropropane, ethylbenzene, hexachloro-1,3-butadiene, 2-hexanone, 2-butanone (MEK), 1,2,4-trichlorobenzene, and vinyl acetate associated with analytical batch WG995407 (analyzed on July 4, 2017). These results are qualified by the laboratory “J0” to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated sample results for these compounds are estimated and qualified (UJ or J).**

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

Method RSK-175:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blanks at or above the RDL.

USEPA Method 6020:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level of iron was detected in one of the method blanks between the RDL and MDL. No action was necessary as associated iron sample results are significantly greater than the detection in the blank.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussions:

- A low level of alkalinity was measured in the method blank between the RDL and method detection limit (MDL). No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.
- A low level of sulfate was detected in one of the method blanks between the RDL and MDL. No action was necessary as associated sulfate sample results are significantly greater than the detection in the blank.
- A low level of TOC was measured in two of the method blanks between the RDL and MDL. No action was necessary as associated TOC sample results are significantly greater than the detection in the blank.

Trip Blank Results

USEPA Method 8260C:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Method RSK-175:

Samples were analyzed in multiple analytical batches. Laboratory duplicate samples were performed on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: Laboratory duplicate sample analyses were performed on non-client sample and sample N7-062717 within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPD for anions (chloride and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit. For nitrate refer to LCS/LCSD results for precision data.

EPA Method 9060A: A laboratory duplicate sample analyses was performed on non-client samples and sample MW108-062717 within each of the analytical batches. The primary/duplicate RPDs for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussion:

- LCS/LCSD (Batch WG995407) spike compound (1,3-dichloropropane, 1,2-dibromoethane, and vinyl acetate) percent recoveries are slightly below laboratory acceptance criteria and qualified by the laboratory (J4). **All associated results for these compounds are estimated (UJ or J) due to slightly low LCS/LCSD recoveries.**
- LCS (Batch WG995407) spike compound (ethylbenzene) percent recovery is slightly below laboratory acceptance criteria and qualified by the laboratory (J4). No action was taken on this basis as LCSD percent recovery results are within.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water. No data qualifications were warranted.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

Method RSK-175:

MS/MSD analysis was not performed on samples submitted for dissolved gases. Refer to LCS/LCSD results for additional information on accuracy and precision.

USEPA Method 6020:

Matrix spike analysis was performed on non-client samples and on sample MW108-062717. Manganese and iron sample amounts are greater than four times the spike amount and the spike recoveries were not within acceptance criteria. No action was taken other than to note this.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS and MS/MSD analysis for chloride and sulfate were performed on a non-client sample and on sample MW110-062717 within the analytical batches. MS % Rs and MS/MSD % Rs and RPDs for chloride and sulfate were within the laboratory control criteria for water. Refer to LCS/LCSD results for additional information for nitrate.

EPA Method 9060A: MS/MSD analyses for TOC were performed on non-client samples within the analytical batches. MS/MSD % Rs and RPDs for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

MW108-062717

Collected date/time: 06/27/17 09:00

SAMPLE RESULTS - 01

L919100

ONE LAB. NATIONWIDE.



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	679000		2710	20000	1	07/06/2017 20:53	WG996022

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	20600		51.9	1000	1	06/29/2017 03:21	WG993859
Nitrate	U		22.7	100	1	06/29/2017 03:21 <i>ok</i>	WG993859
Sulfate	101000		387	25000	<u>5</u>	07/01/2017 19:32	WG994712

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	8620		102	1000	1	07/01/2017 19:32	WG994888

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	21800	<u>V</u>	15.0	100	1	07/05/2017 23:30	WG995343
Manganese	2200	<u>V</u>	0.250	5.00	1	07/05/2017 20:57	WG995343

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	3940		1.44	3.39	<u>5</u>	07/05/2017 14:58	WG995826
Ethane	47.8		0.296	1.29	1	07/05/2017 11:16	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:16	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.03	<u>J</u>	1.05	25.0	1	07/04/2017 12:33	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 12:33	WG995407
Benzene	1.26		0.0896	0.500	1	07/04/2017 12:33	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 12:33	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 12:33	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 12:33	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 12:33	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 12:33	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 12:33	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 12:33	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 12:33	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 12:33	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 12:33	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 12:33	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 12:33	WG995407
Chloroethane	U		0.141	2.50	1	07/04/2017 12:33	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 12:33	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 12:33	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 12:33	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 12:33	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 12:33	WG995407
1,2-Dibromoethane	U	<u>UJ</u>	0.193	0.500	1	07/04/2017 12:33	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 12:33	WG995407

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

JC
7/13/17

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 12:33	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 12:33	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 12:33	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 12:33	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 12:33	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 12:33	WG995407
1,1-Dichloroethene	0.512		0.188	0.500	1	07/04/2017 12:33	WG995407
cis-1,2-Dichloroethene	165		0.0933	0.500	1	07/04/2017 12:33	WG995407
trans-1,2-Dichloroethene	0.748		0.152	0.500	1	07/04/2017 12:33	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 12:33	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 12:33	WG995407
1,3-Dichloropropane	U	VJ JO J4	0.147	1.00	1	07/04/2017 12:33	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 12:33	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 12:33	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 12:33	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 12:33	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 12:33	WG995407
Ethylbenzene	U	VJ JO J4	0.158	0.500	1	07/04/2017 12:33	WG995407
Hexachloro-1,3-butadiene	U	VJ JO	0.157	1.00	1	07/04/2017 12:33	WG995407
2-Hexanone	U	VJ JO	0.757	5.00	1	07/04/2017 12:33	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 12:33	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 12:33	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 12:33	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 12:33	WG995407
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	07/04/2017 12:33	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 12:33	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 12:33	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 12:33	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 12:33	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 12:33	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 12:33	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 12:33	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 12:33	WG995407
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 12:33	WG995407
Tetrachloroethene	194		1.99	5.00	10	07/05/2017 11:48	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 12:33	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 12:33	WG995407
1,2,4-Trichlorobenzene	U	VJ JO	0.355	0.500	1	07/04/2017 12:33	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 12:33	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 12:33	WG995407
Trichloroethene	22.1		0.153	0.500	1	07/04/2017 12:33	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 12:33	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 12:33	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 12:33	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 12:33	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 12:33	WG995407
Vinyl acetate	U	VJ JO J4	0.645	5.00	1	07/04/2017 12:33	WG995407
Vinyl chloride	52.8		0.118	0.500	1	07/04/2017 12:33	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 12:33	WG995407
(S) Toluene-d8	99.5 ✓			80.0-120		07/05/2017 11:48	WG995407
(S) Toluene-d8	100 ✓			80.0-120		07/04/2017 12:33	WG995407
(S) Dibromofluoromethane	87.7 ✓			76.0-123		07/05/2017 11:48	WG995407
(S) Dibromofluoromethane	113 ✓			76.0-123		07/04/2017 12:33	WG995407
(S) 4-Bromofluorobenzene	112 ✓			80.0-120		07/05/2017 11:48	WG995407
(S) 4-Bromofluorobenzene	107 ✓			80.0-120		07/04/2017 12:33	WG995407

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Jc 7/30/17



Collected date/time: 06/27/17 10:50

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	ug/l		ug/l	ug/l		date / time	
Alkalinity	693000		2710	20000	1	07/06/2017 20:59	WG996022

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	ug/l		ug/l	ug/l		date / time	
Chloride	13300		51.9	1000	1	06/29/2017 04:08	WG993859
Nitrate	U		22.7	100	1	06/29/2017 04:08	WG993859
Sulfate	42500		77.4	5000	1	06/29/2017 04:08	WG993859

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	12200		204	2000	2	07/06/2017 10:55	WG995857

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	ug/l		ug/l	ug/l		date / time	
Iron	14600		15.0	100	1	07/06/2017 00:06	WG995343
Manganese	3900		0.250	5.00	1	07/05/2017 21:46	WG995343

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	ug/l		ug/l	ug/l		date / time	
Methane	2540		1.44	3.39	5	07/05/2017 15:00	WG995826
Ethane	8.65		0.296	1.29	1	07/05/2017 11:19	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:19	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	1.20	J J	1.05	25.0	1	07/04/2017 12:58	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 12:58	WG995407
Benzene	U		0.0896	0.500	1	07/04/2017 12:58	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 12:58	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 12:58	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 12:58	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 12:58	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 12:58	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 12:58	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 12:58	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 12:58	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 12:58	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 12:58	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 12:58	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 12:58	WG995407
Chloroethane	U		0.141	2.50	1	07/04/2017 12:58	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 12:58	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 12:58	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 12:58	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 12:58	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 12:58	WG995407
1,2-Dibromoethane	U	US JO J4	0.193	0.500	1	07/04/2017 12:58	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 12:58	WG995407

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Collected date/time: 06/27/17 10:50

L919100

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 12:58	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 12:58	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 12:58	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 12:58	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 12:58	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 12:58	WG995407
1,1-Dichloroethene	0.583		0.188	0.500	1	07/04/2017 12:58	WG995407
cis-1,2-Dichloroethene	163		0.0933	0.500	1	07/04/2017 12:58	WG995407
trans-1,2-Dichloroethene	1.17		0.152	0.500	1	07/04/2017 12:58	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 12:58	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 12:58	WG995407
1,3-Dichloropropane	U	VJ JO J4	0.147	1.00	1	07/04/2017 12:58	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 12:58	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 12:58	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 12:58	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 12:58	WG995407
Diisopropyl ether	U		0.0924	0.500	1	07/04/2017 12:58	WG995407
Ethylbenzene	U	VJ JO J4	0.158	0.500	1	07/04/2017 12:58	WG995407
Hexachloro-1,3-butadiene	U	VJ JO	0.157	1.00	1	07/04/2017 12:58	WG995407
2-Hexanone	U	VJ JO	0.757	5.00	1	07/04/2017 12:58	WG995407
n-Hexane	U	VJ JO	0.305	5.00	1	07/04/2017 12:58	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 12:58	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 12:58	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 12:58	WG995407
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	07/04/2017 12:58	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 12:58	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 12:58	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 12:58	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 12:58	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 12:58	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 12:58	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 12:58	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 12:58	WG995407
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 12:58	WG995407
Tetrachloroethene	9.69	J JO	0.199	0.500	1	07/04/2017 12:58	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 12:58	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 12:58	WG995407
1,2,4-Trichlorobenzene	U	VJ JO	0.355	0.500	1	07/04/2017 12:58	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 12:58	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 12:58	WG995407
Trichloroethene	141		0.153	0.500	1	07/04/2017 12:58	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 12:58	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 12:58	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 12:58	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 12:58	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 12:58	WG995407
Vinyl acetate	U	VJ JO J4	0.645	5.00	1	07/04/2017 12:58	WG995407
Vinyl chloride	6.06		0.118	0.500	1	07/04/2017 12:58	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 12:58	WG995407
(S) Toluene-d8	99.8			80.0-120		07/04/2017 12:58	WG995407
(S) Dibromofluoromethane	117			76.0-123		07/04/2017 12:58	WG995407
(S) 4-Bromofluorobenzene	108			80.0-120		07/04/2017 12:58	WG995407

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JL 7/30/17



Collected date/time: 06/27/17 12:35

L919100

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	516000		2710	20000	1	07/06/2017 21:09	WG996022

¹ Cp

² Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	27000		51.9	1000	1	06/29/2017 04:24	WG993859
Nitrate	U		22.7	100	1	06/29/2017 04:24	WG993859
Sulfate	160000		774	50000	10	07/01/2017 16:31	WG994713

³ Ss

⁴ Cn

⁵ Si

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	4910		102	1000	1	07/03/2017 19:19	WG995102

⁶ Qc

⁷ Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	115	B	15.0	100	1	07/06/2017 00:11	WG995343
Manganese	2130		0.250	5.00	1	07/05/2017 21:50	WG995343

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	95.5		0.287	0.678	1	07/05/2017 11:21	WG993916
Ethane	17.4		0.296	1.29	1	07/05/2017 11:21	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:21	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	07/04/2017 13:23	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 13:23	WG995407
Benzene	U		0.0896	0.500	1	07/04/2017 13:23	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 13:23	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 13:23	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 13:23	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 13:23	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 13:23	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 13:23	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 13:23	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 13:23	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 13:23	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 13:23	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 13:23	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 13:23	WG995407
Chloroethane	U		0.141	2.50	1	07/04/2017 13:23	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 13:23	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 13:23	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 13:23	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 13:23	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 13:23	WG995407
1,2-Dibromoethane	U	VJ JO J4	0.193	0.500	1	07/04/2017 13:23	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 13:23	WG995407

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	ug/l		ug/l	ug/l			
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 13:23	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 13:23	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 13:23	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 13:23	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 13:23	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 13:23	WG995407
1,1-Dichloroethene	5.30		0.188	0.500	1	07/04/2017 13:23	WG995407
cis-1,2-Dichloroethene	1120		4.66	25.0	50	07/05/2017 12:02	WG995407
trans-1,2-Dichloroethene	2.66		0.152	0.500	1	07/04/2017 13:23	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 13:23	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 13:23	WG995407
1,3-Dichloropropane	U	VJ JO J4	0.147	1.00	1	07/04/2017 13:23	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 13:23	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 13:23	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 13:23	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 13:23	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 13:23	WG995407
Ethylbenzene	U	VJ JO J4	0.158	0.500	1	07/04/2017 13:23	WG995407
Hexachloro-1,3-butadiene	U	VJ JO	0.157	1.00	1	07/04/2017 13:23	WG995407
2-Hexanone	U	VJ JO	0.757	5.00	1	07/04/2017 13:23	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 13:23	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 13:23	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 13:23	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 13:23	WG995407
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	07/04/2017 13:23	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 13:23	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 13:23	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 13:23	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 13:23	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 13:23	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 13:23	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 13:23	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 13:23	WG995407
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 13:23	WG995407
Tetrachloroethene	259		9.95	25.0	50	07/05/2017 12:02	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 13:23	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 13:23	WG995407
1,2,4-Trichlorobenzene	U	VJ JO	0.355	0.500	1	07/04/2017 13:23	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 13:23	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 13:23	WG995407
Trichloroethene	176		0.153	0.500	1	07/04/2017 13:23	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 13:23	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 13:23	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 13:23	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 13:23	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 13:23	WG995407
Vinyl acetate	U	VJ JO J4	0.645	5.00	1	07/04/2017 13:23	WG995407
Vinyl chloride	152		0.118	0.500	1	07/04/2017 13:23	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 13:23	WG995407
(S) Toluene-d8	100 ✓			80.0-120		07/05/2017 12:02	WG995407
(S) Toluene-d8	100 ✓			80.0-120		07/04/2017 13:23	WG995407
(S) Dibromofluoromethane	89.2 ✓			76.0-123		07/05/2017 12:02	WG995407
(S) Dibromofluoromethane	117 ✓			76.0-123 ✓		07/04/2017 13:23	WG995407
(S) 4-Bromofluorobenzene	111 ✓			80.0-120		07/05/2017 12:02	WG995407
(S) 4-Bromofluorobenzene	106 ✓			80.0-120		07/04/2017 13:23	WG995407

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

JC
7/30/17

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	235000		2710	20000	1	07/06/2017 21:37	WG996022

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	8760		51.9	1000	1	06/29/2017 05:12	WG993859
Nitrate	6290		22.7	100	1	06/29/2017 05:12	WG993859
Sulfate	48400		77.4	5000	1	06/29/2017 05:12	WG993859

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	2710		102	1000	1	07/03/2017 19:30	WG995102

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	1450		15.0	100	1	07/06/2017 00:16	WG995343
Manganese	3310		0.250	5.00	1	07/05/2017 21:53	WG995343

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	8430		5.74	13.6	20	07/05/2017 15:02	WG995826
Ethane	U		0.296	1.29	1	07/05/2017 11:23	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:23	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	1.41	J	1.05	25.0	1	07/04/2017 13:48	WG995407
Acrylonitrile	U		0.873	5.00	1	07/04/2017 13:48	WG995407
Benzene	U		0.0896	0.500	1	07/04/2017 13:48	WG995407
Bromobenzene	U		0.133	0.500	1	07/04/2017 13:48	WG995407
Bromodichloromethane	U		0.0800	0.500	1	07/04/2017 13:48	WG995407
Bromochloromethane	U		0.145	0.500	1	07/04/2017 13:48	WG995407
Bromoform	U		0.186	0.500	1	07/04/2017 13:48	WG995407
Bromomethane	U		0.157	2.50	1	07/04/2017 13:48	WG995407
n-Butylbenzene	U		0.143	0.500	1	07/04/2017 13:48	WG995407
sec-Butylbenzene	U		0.134	0.500	1	07/04/2017 13:48	WG995407
tert-Butylbenzene	U		0.183	0.500	1	07/04/2017 13:48	WG995407
Carbon disulfide	U		0.101	0.500	1	07/04/2017 13:48	WG995407
Carbon tetrachloride	U		0.159	0.500	1	07/04/2017 13:48	WG995407
Chlorobenzene	U		0.140	0.500	1	07/04/2017 13:48	WG995407
Chlorodibromomethane	U		0.128	0.500	1	07/04/2017 13:48	WG995407
Chloroethane	0.313	J	0.141	2.50	1	07/04/2017 13:48	WG995407
Chloroform	U		0.0860	0.500	1	07/04/2017 13:48	WG995407
Chloromethane	U		0.153	1.25	1	07/04/2017 13:48	WG995407
2-Chlorotoluene	U		0.111	0.500	1	07/04/2017 13:48	WG995407
4-Chlorotoluene	U		0.0972	0.500	1	07/04/2017 13:48	WG995407
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/04/2017 13:48	WG995407
1,2-Dibromoethane	U	VJ	0.193	0.500	1	07/04/2017 13:48	WG995407
Dibromomethane	U		0.117	0.500	1	07/04/2017 13:48	WG995407

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC
7/30/17

N7-062717

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 06/27/17 15:10

L919100

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/04/2017 13:48	WG995407
1,3-Dichlorobenzene	U		0.130	0.500	1	07/04/2017 13:48	WG995407
1,4-Dichlorobenzene	U		0.121	0.500	1	07/04/2017 13:48	WG995407
Dichlorodifluoromethane	U		0.127	2.50	1	07/04/2017 13:48	WG995407
1,1-Dichloroethane	U		0.114	0.500	1	07/04/2017 13:48	WG995407
1,2-Dichloroethane	U		0.108	0.500	1	07/04/2017 13:48	WG995407
1,1-Dichloroethene	1.00		0.188	0.500	1	07/04/2017 13:48	WG995407
cis-1,2-Dichloroethene	153		0.933	5.00	10	07/05/2017 12:15	WG995407
trans-1,2-Dichloroethene	0.955		0.152	0.500	1	07/04/2017 13:48	WG995407
1,2-Dichloropropane	U		0.190	0.500	1	07/04/2017 13:48	WG995407
1,1-Dichloropropene	U		0.128	0.500	1	07/04/2017 13:48	WG995407
1,3-Dichloropropane	U	VJ JO J4	0.147	1.00	1	07/04/2017 13:48	WG995407
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/04/2017 13:48	WG995407
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/04/2017 13:48	WG995407
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/04/2017 13:48	WG995407
2,2-Dichloropropane	U		0.0929	0.500	1	07/04/2017 13:48	WG995407
Di-isopropyl ether	U		0.0924	0.500	1	07/04/2017 13:48	WG995407
Ethylbenzene	U	VJ JO J4	0.158	0.500	1	07/04/2017 13:48	WG995407
Hexachloro-1,3-butadiene	U	VJ JO	0.157	1.00	1	07/04/2017 13:48	WG995407
2-Hexanone	U	VJ JO	0.757	5.00	1	07/04/2017 13:48	WG995407
n-Hexane	U		0.305	5.00	1	07/04/2017 13:48	WG995407
Iodomethane	U		0.377	10.0	1	07/04/2017 13:48	WG995407
Isopropylbenzene	U		0.126	0.500	1	07/04/2017 13:48	WG995407
p-Isopropyltoluene	U		0.138	0.500	1	07/04/2017 13:48	WG995407
2-Butanone (MEK)	U	VJ JO	1.28	5.00	1	07/04/2017 13:48	WG995407
Methylene Chloride	U		1.07	2.50	1	07/04/2017 13:48	WG995407
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/04/2017 13:48	WG995407
Methyl tert-butyl ether	U		0.102	0.500	1	07/04/2017 13:48	WG995407
Naphthalene	U		0.174	2.50	1	07/04/2017 13:48	WG995407
n-Propylbenzene	U		0.162	0.500	1	07/04/2017 13:48	WG995407
Styrene	U		0.117	0.500	1	07/04/2017 13:48	WG995407
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/04/2017 13:48	WG995407
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/04/2017 13:48	WG995407
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/04/2017 13:48	WG995407
Tetrachloroethene	205		1.99	5.00	10	07/05/2017 12:15	WG995407
Toluene	U		0.412	0.500	1	07/04/2017 13:48	WG995407
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/04/2017 13:48	WG995407
1,2,4-Trichlorobenzene	U	VJ JO	0.355	0.500	1	07/04/2017 13:48	WG995407
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/04/2017 13:48	WG995407
1,1,2-Trichloroethane	U		0.186	0.500	1	07/04/2017 13:48	WG995407
Trichloroethene	85.1		0.153	0.500	1	07/04/2017 13:48	WG995407
Trichlorofluoromethane	U		0.130	2.50	1	07/04/2017 13:48	WG995407
1,2,3-Trichloropropane	U		0.247	2.50	1	07/04/2017 13:48	WG995407
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/04/2017 13:48	WG995407
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/04/2017 13:48	WG995407
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/04/2017 13:48	WG995407
Vinyl acetate	U	VJ JO J4	0.645	5.00	1	07/04/2017 13:48	WG995407
Vinyl chloride	0.386	VJ J	0.118	0.500	1	07/04/2017 13:48	WG995407
Xylenes, Total	U		0.316	1.50	1	07/04/2017 13:48	WG995407
(S) Toluene-d8	99.0			80.0-120		07/04/2017 13:48	WG995407
(S) Toluene-d8	98.9			80.0-120		07/05/2017 12:15	WG995407
(S) Dibromofluoromethane	117			76.0-123		07/04/2017 13:48	WG995407
(S) Dibromofluoromethane	88.7			76.0-123		07/05/2017 12:15	WG995407
(S) 4-Bromofluorobenzene	110			80.0-120		07/04/2017 13:48	WG995407
(S) 4-Bromofluorobenzene	110			80.0-120		07/05/2017 12:15	WG995407

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JL
7/30/17

July 10, 2017

PES Environmental, Inc.- WA

Sample Delivery Group: L919285
Samples Received: 06/29/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



MW120-062817 L919285-01 GW

Collected by Shannon McKernan
Collected date/time 06/28/17 10:50
Received date/time 06/29/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG996080	1	07/06/17 11:22	07/06/17 11:22	DWR

1
Cp

2
Tc

3
Ss

MW119-062817 L919285-02 GW

Collected by Shannon McKernan
Collected date/time 06/28/17 12:45
Received date/time 06/29/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG996482	1	07/07/17 11:12	07/07/17 11:12	MCG
Wet Chemistry by Method 9056A	WG993864	1	07/01/17 00:05	07/01/17 00:05	SAM
Wet Chemistry by Method 9060A	WG995664	1	07/05/17 20:02	07/05/17 20:02	CSU
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/05/17 21:57	LAT
Metals (ICPMS) by Method 6020A	WG995343	1	07/05/17 08:50	07/06/17 00:22	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG993916	1	07/05/17 11:25	07/05/17 11:25	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG996080	1	07/06/17 11:37	07/06/17 11:37	DWR

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

MW125-062817 L919285-03 GW

Collected by Shannon McKernan
Collected date/time 06/28/17 09:10
Received date/time 06/29/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG995181	1	07/02/17 23:28	07/02/17 23:28	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG996080	1	07/06/17 11:52	07/06/17 11:52	DWR

9
Sc

R-MW3-062817 L919285-04 GW

Collected by Shannon McKernan
Collected date/time 06/28/17 14:15
Received date/time 06/29/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG995181	1	07/02/17 23:50	07/02/17 23:50	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG996080	1	07/06/17 12:07	07/06/17 12:07	DWR



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	3.40	<u>B J J0</u>	1.05	25.0	1	07/06/2017 11:22	WG996080
Acrylonitrile	U		0.873	5.00	1	07/06/2017 11:22	WG996080
Benzene	U		0.0896	0.500	1	07/06/2017 11:22	WG996080
Bromobenzene	U		0.133	0.500	1	07/06/2017 11:22	WG996080
Bromodichloromethane	U		0.0800	0.500	1	07/06/2017 11:22	WG996080
Bromochloromethane	U		0.145	0.500	1	07/06/2017 11:22	WG996080
Bromoform	U		0.186	0.500	1	07/06/2017 11:22	WG996080
Bromomethane	U		0.157	2.50	1	07/06/2017 11:22	WG996080
n-Butylbenzene	U		0.143	0.500	1	07/06/2017 11:22	WG996080
sec-Butylbenzene	U		0.134	0.500	1	07/06/2017 11:22	WG996080
tert-Butylbenzene	U		0.183	0.500	1	07/06/2017 11:22	WG996080
Carbon disulfide	U		0.101	0.500	1	07/06/2017 11:22	WG996080
Carbon tetrachloride	U		0.159	0.500	1	07/06/2017 11:22	WG996080
Chlorobenzene	U		0.140	0.500	1	07/06/2017 11:22	WG996080
Chlorodibromomethane	U		0.128	0.500	1	07/06/2017 11:22	WG996080
Chloroethane	U		0.141	2.50	1	07/06/2017 11:22	WG996080
Chloroform	U		0.0860	0.500	1	07/06/2017 11:22	WG996080
Chloromethane	U		0.153	1.25	1	07/06/2017 11:22	WG996080
2-Chlorotoluene	U		0.111	0.500	1	07/06/2017 11:22	WG996080
4-Chlorotoluene	U		0.0972	0.500	1	07/06/2017 11:22	WG996080
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/06/2017 11:22	WG996080
1,2-Dibromoethane	U		0.193	0.500	1	07/06/2017 11:22	WG996080
Dibromomethane	U		0.117	0.500	1	07/06/2017 11:22	WG996080
1,2-Dichlorobenzene	U		0.101	0.500	1	07/06/2017 11:22	WG996080
1,3-Dichlorobenzene	U		0.130	0.500	1	07/06/2017 11:22	WG996080
1,4-Dichlorobenzene	U		0.121	0.500	1	07/06/2017 11:22	WG996080
Dichlorodifluoromethane	U		0.127	2.50	1	07/06/2017 11:22	WG996080
1,1-Dichloroethane	1.57		0.114	0.500	1	07/06/2017 11:22	WG996080
1,2-Dichloroethane	0.211	<u>J</u>	0.108	0.500	1	07/06/2017 11:22	WG996080
1,1-Dichloroethene	0.251	<u>J</u>	0.188	0.500	1	07/06/2017 11:22	WG996080
cis-1,2-Dichloroethene	16.0		0.0933	0.500	1	07/06/2017 11:22	WG996080
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/06/2017 11:22	WG996080
1,2-Dichloropropane	0.762		0.190	0.500	1	07/06/2017 11:22	WG996080
1,1-Dichloropropene	U		0.128	0.500	1	07/06/2017 11:22	WG996080
1,3-Dichloropropane	U		0.147	1.00	1	07/06/2017 11:22	WG996080
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/06/2017 11:22	WG996080
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/06/2017 11:22	WG996080
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/06/2017 11:22	WG996080
2,2-Dichloropropane	U		0.0929	0.500	1	07/06/2017 11:22	WG996080
Di-isopropyl ether	U		0.0924	0.500	1	07/06/2017 11:22	WG996080
Ethylbenzene	U		0.158	0.500	1	07/06/2017 11:22	WG996080
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/06/2017 11:22	WG996080
2-Hexanone	U		0.757	5.00	1	07/06/2017 11:22	WG996080
n-Hexane	U		0.305	5.00	1	07/06/2017 11:22	WG996080
Iodomethane	U		0.377	10.0	1	07/06/2017 11:22	WG996080
Isopropylbenzene	U		0.126	0.500	1	07/06/2017 11:22	WG996080
p-Isopropyltoluene	U		0.138	0.500	1	07/06/2017 11:22	WG996080
2-Butanone (MEK)	U		1.28	5.00	1	07/06/2017 11:22	WG996080
Methylene Chloride	U		1.07	2.50	1	07/06/2017 11:22	WG996080
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/06/2017 11:22	WG996080
Methyl tert-butyl ether	U		0.102	0.500	1	07/06/2017 11:22	WG996080
Naphthalene	0.384	<u>J J0 J3</u>	0.174	2.50	1	07/06/2017 11:22	WG996080
n-Propylbenzene	U		0.162	0.500	1	07/06/2017 11:22	WG996080
Styrene	U		0.117	0.500	1	07/06/2017 11:22	WG996080
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/06/2017 11:22	WG996080
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/06/2017 11:22	WG996080

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	0.418	J	0.164	0.500	1	07/06/2017 11:22	WG996080
Tetrachloroethene	18.0		0.199	0.500	1	07/06/2017 11:22	WG996080
Toluene	U		0.412	0.500	1	07/06/2017 11:22	WG996080
1,2,3-Trichlorobenzene	0.456	B J J0 J3	0.164	0.500	1	07/06/2017 11:22	WG996080
1,2,4-Trichlorobenzene	U	J3	0.355	0.500	1	07/06/2017 11:22	WG996080
1,1,1-Trichloroethane	0.278	J	0.0940	0.500	1	07/06/2017 11:22	WG996080
1,1,2-Trichloroethane	U		0.186	0.500	1	07/06/2017 11:22	WG996080
Trichloroethene	6.97		0.153	0.500	1	07/06/2017 11:22	WG996080
Trichlorofluoromethane	U		0.130	2.50	1	07/06/2017 11:22	WG996080
1,2,3-Trichloropropane	U		0.247	2.50	1	07/06/2017 11:22	WG996080
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/06/2017 11:22	WG996080
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/06/2017 11:22	WG996080
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/06/2017 11:22	WG996080
Vinyl acetate	U		0.645	5.00	1	07/06/2017 11:22	WG996080
Vinyl chloride	0.988		0.118	0.500	1	07/06/2017 11:22	WG996080
Xylenes, Total	U		0.316	1.50	1	07/06/2017 11:22	WG996080
(S) Toluene-d8	91.1			80.0-120		07/06/2017 11:22	WG996080
(S) Dibromofluoromethane	83.0			76.0-123		07/06/2017 11:22	WG996080
(S) 4-Bromofluorobenzene	90.6			80.0-120		07/06/2017 11:22	WG996080

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	360000		2710	20000	1	07/07/2017 11:12	WG996482

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	13700		51.9	1000	1	07/01/2017 00:05	WG993864
Nitrate	U	Q	22.7	100	1	07/01/2017 00:05	WG993864
Sulfate	56100		77.4	5000	1	07/01/2017 00:05	WG993864

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	9090		102	1000	1	07/05/2017 20:02	WG995664

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	5660		15.0	100	1	07/06/2017 00:22	WG995343
Manganese	1250		0.250	5.00	1	07/05/2017 21:57	WG995343

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	73.5		0.287	0.678	1	07/05/2017 11:25	WG993916
Ethane	U		0.296	1.29	1	07/05/2017 11:25	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:25	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.73	B J JO	1.05	25.0	1	07/06/2017 11:37	WG996080
Acrylonitrile	U		0.873	5.00	1	07/06/2017 11:37	WG996080
Benzene	U		0.0896	0.500	1	07/06/2017 11:37	WG996080
Bromobenzene	U		0.133	0.500	1	07/06/2017 11:37	WG996080
Bromodichloromethane	U		0.0800	0.500	1	07/06/2017 11:37	WG996080
Bromochloromethane	U		0.145	0.500	1	07/06/2017 11:37	WG996080
Bromoform	U		0.186	0.500	1	07/06/2017 11:37	WG996080
Bromomethane	U		0.157	2.50	1	07/06/2017 11:37	WG996080
n-Butylbenzene	U		0.143	0.500	1	07/06/2017 11:37	WG996080
sec-Butylbenzene	U		0.134	0.500	1	07/06/2017 11:37	WG996080
tert-Butylbenzene	U		0.183	0.500	1	07/06/2017 11:37	WG996080
Carbon disulfide	U		0.101	0.500	1	07/06/2017 11:37	WG996080
Carbon tetrachloride	U		0.159	0.500	1	07/06/2017 11:37	WG996080
Chlorobenzene	U		0.140	0.500	1	07/06/2017 11:37	WG996080
Chlorodibromomethane	U		0.128	0.500	1	07/06/2017 11:37	WG996080
Chloroethane	U		0.141	2.50	1	07/06/2017 11:37	WG996080
Chloroform	U		0.0860	0.500	1	07/06/2017 11:37	WG996080
Chloromethane	U		0.153	1.25	1	07/06/2017 11:37	WG996080
2-Chlorotoluene	U		0.111	0.500	1	07/06/2017 11:37	WG996080
4-Chlorotoluene	U		0.0972	0.500	1	07/06/2017 11:37	WG996080
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/06/2017 11:37	WG996080
1,2-Dibromoethane	U		0.193	0.500	1	07/06/2017 11:37	WG996080
Dibromomethane	U		0.117	0.500	1	07/06/2017 11:37	WG996080



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/06/2017 11:37	WG996080
1,3-Dichlorobenzene	U		0.130	0.500	1	07/06/2017 11:37	WG996080
1,4-Dichlorobenzene	U		0.121	0.500	1	07/06/2017 11:37	WG996080
Dichlorodifluoromethane	U		0.127	2.50	1	07/06/2017 11:37	WG996080
1,1-Dichloroethane	U		0.114	0.500	1	07/06/2017 11:37	WG996080
1,2-Dichloroethane	U		0.108	0.500	1	07/06/2017 11:37	WG996080
1,1-Dichloroethene	U		0.188	0.500	1	07/06/2017 11:37	WG996080
cis-1,2-Dichloroethene	5.99		0.0933	0.500	1	07/06/2017 11:37	WG996080
trans-1,2-Dichloroethene	0.167	J	0.152	0.500	1	07/06/2017 11:37	WG996080
1,2-Dichloropropane	U		0.190	0.500	1	07/06/2017 11:37	WG996080
1,1-Dichloropropene	U		0.128	0.500	1	07/06/2017 11:37	WG996080
1,3-Dichloropropane	U		0.147	1.00	1	07/06/2017 11:37	WG996080
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/06/2017 11:37	WG996080
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/06/2017 11:37	WG996080
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/06/2017 11:37	WG996080
2,2-Dichloropropane	U		0.0929	0.500	1	07/06/2017 11:37	WG996080
Di-isopropyl ether	U		0.0924	0.500	1	07/06/2017 11:37	WG996080
Ethylbenzene	U		0.158	0.500	1	07/06/2017 11:37	WG996080
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/06/2017 11:37	WG996080
2-Hexanone	U		0.757	5.00	1	07/06/2017 11:37	WG996080
n-Hexane	U		0.305	5.00	1	07/06/2017 11:37	WG996080
Iodomethane	U		0.377	10.0	1	07/06/2017 11:37	WG996080
Isopropylbenzene	U		0.126	0.500	1	07/06/2017 11:37	WG996080
p-Isopropyltoluene	U		0.138	0.500	1	07/06/2017 11:37	WG996080
2-Butanone (MEK)	U		1.28	5.00	1	07/06/2017 11:37	WG996080
Methylene Chloride	U		1.07	2.50	1	07/06/2017 11:37	WG996080
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/06/2017 11:37	WG996080
Methyl tert-butyl ether	U		0.102	0.500	1	07/06/2017 11:37	WG996080
Naphthalene	U	JO J3	0.174	2.50	1	07/06/2017 11:37	WG996080
n-Propylbenzene	U		0.162	0.500	1	07/06/2017 11:37	WG996080
Styrene	U		0.117	0.500	1	07/06/2017 11:37	WG996080
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/06/2017 11:37	WG996080
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/06/2017 11:37	WG996080
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/06/2017 11:37	WG996080
Tetrachloroethene	19.0		0.199	0.500	1	07/06/2017 11:37	WG996080
Toluene	0.726		0.412	0.500	1	07/06/2017 11:37	WG996080
1,2,3-Trichlorobenzene	0.165	B J JO J3	0.164	0.500	1	07/06/2017 11:37	WG996080
1,2,4-Trichlorobenzene	U	J3	0.355	0.500	1	07/06/2017 11:37	WG996080
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/06/2017 11:37	WG996080
1,1,2-Trichloroethane	U		0.186	0.500	1	07/06/2017 11:37	WG996080
Trichloroethene	12.4		0.153	0.500	1	07/06/2017 11:37	WG996080
Trichlorofluoromethane	U		0.130	2.50	1	07/06/2017 11:37	WG996080
1,2,3-Trichloropropane	U		0.247	2.50	1	07/06/2017 11:37	WG996080
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/06/2017 11:37	WG996080
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/06/2017 11:37	WG996080
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/06/2017 11:37	WG996080
Vinyl acetate	U		0.645	5.00	1	07/06/2017 11:37	WG996080
Vinyl chloride	U		0.118	0.500	1	07/06/2017 11:37	WG996080
Xylenes, Total	0.562	J	0.316	1.50	1	07/06/2017 11:37	WG996080
(S) Toluene-d8	92.2			80.0-120		07/06/2017 11:37	WG996080
(S) Dibromofluoromethane	83.0			76.0-123		07/06/2017 11:37	WG996080
(S) 4-Bromofluorobenzene	95.4			80.0-120		07/06/2017 11:37	WG996080

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	07/02/2017 23:28	WG995181
(S) a,a,a-Trifluorotoluene(FID)	92.1			77.0-122		07/02/2017 23:28	WG995181

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/06/2017 11:52	WG996080
Acrylonitrile	U		0.873	5.00	1	07/06/2017 11:52	WG996080
Benzene	U		0.0896	0.500	1	07/06/2017 11:52	WG996080
Bromobenzene	U		0.133	0.500	1	07/06/2017 11:52	WG996080
Bromodichloromethane	U		0.0800	0.500	1	07/06/2017 11:52	WG996080
Bromochloromethane	U		0.145	0.500	1	07/06/2017 11:52	WG996080
Bromoform	U		0.186	0.500	1	07/06/2017 11:52	WG996080
Bromomethane	U		0.157	2.50	1	07/06/2017 11:52	WG996080
n-Butylbenzene	U		0.143	0.500	1	07/06/2017 11:52	WG996080
sec-Butylbenzene	U		0.134	0.500	1	07/06/2017 11:52	WG996080
tert-Butylbenzene	U		0.183	0.500	1	07/06/2017 11:52	WG996080
Carbon disulfide	U		0.101	0.500	1	07/06/2017 11:52	WG996080
Carbon tetrachloride	U		0.159	0.500	1	07/06/2017 11:52	WG996080
Chlorobenzene	U		0.140	0.500	1	07/06/2017 11:52	WG996080
Chlorodibromomethane	U		0.128	0.500	1	07/06/2017 11:52	WG996080
Chloroethane	U		0.141	2.50	1	07/06/2017 11:52	WG996080
Chloroform	U		0.0860	0.500	1	07/06/2017 11:52	WG996080
Chloromethane	U		0.153	1.25	1	07/06/2017 11:52	WG996080
2-Chlorotoluene	U		0.111	0.500	1	07/06/2017 11:52	WG996080
4-Chlorotoluene	U		0.0972	0.500	1	07/06/2017 11:52	WG996080
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/06/2017 11:52	WG996080
1,2-Dibromoethane	U		0.193	0.500	1	07/06/2017 11:52	WG996080
Dibromomethane	U		0.117	0.500	1	07/06/2017 11:52	WG996080
1,2-Dichlorobenzene	U		0.101	0.500	1	07/06/2017 11:52	WG996080
1,3-Dichlorobenzene	U		0.130	0.500	1	07/06/2017 11:52	WG996080
1,4-Dichlorobenzene	U		0.121	0.500	1	07/06/2017 11:52	WG996080
Dichlorodifluoromethane	U		0.127	2.50	1	07/06/2017 11:52	WG996080
1,1-Dichloroethane	U		0.114	0.500	1	07/06/2017 11:52	WG996080
1,2-Dichloroethane	U		0.108	0.500	1	07/06/2017 11:52	WG996080
1,1-Dichloroethene	U		0.188	0.500	1	07/06/2017 11:52	WG996080
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/06/2017 11:52	WG996080
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/06/2017 11:52	WG996080
1,2-Dichloropropane	U		0.190	0.500	1	07/06/2017 11:52	WG996080
1,1-Dichloropropene	U		0.128	0.500	1	07/06/2017 11:52	WG996080
1,3-Dichloropropane	U		0.147	1.00	1	07/06/2017 11:52	WG996080
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/06/2017 11:52	WG996080
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/06/2017 11:52	WG996080
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/06/2017 11:52	WG996080
2,2-Dichloropropane	U		0.0929	0.500	1	07/06/2017 11:52	WG996080
Di-isopropyl ether	U		0.0924	0.500	1	07/06/2017 11:52	WG996080
Ethylbenzene	U		0.158	0.500	1	07/06/2017 11:52	WG996080
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/06/2017 11:52	WG996080
2-Hexanone	U		0.757	5.00	1	07/06/2017 11:52	WG996080
n-Hexane	U		0.305	5.00	1	07/06/2017 11:52	WG996080
Iodomethane	U		0.377	10.0	1	07/06/2017 11:52	WG996080
Isopropylbenzene	U		0.126	0.500	1	07/06/2017 11:52	WG996080
p-Isopropyltoluene	U		0.138	0.500	1	07/06/2017 11:52	WG996080
2-Butanone (MEK)	U		1.28	5.00	1	07/06/2017 11:52	WG996080
Methylene Chloride	U		1.07	2.50	1	07/06/2017 11:52	WG996080



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/06/2017 11:52	WG996080
Methyl tert-butyl ether	U		0.102	0.500	1	07/06/2017 11:52	WG996080
Naphthalene	U	JO J3	0.174	2.50	1	07/06/2017 11:52	WG996080
n-Propylbenzene	U		0.162	0.500	1	07/06/2017 11:52	WG996080
Styrene	U		0.117	0.500	1	07/06/2017 11:52	WG996080
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/06/2017 11:52	WG996080
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/06/2017 11:52	WG996080
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/06/2017 11:52	WG996080
Tetrachloroethene	U		0.199	0.500	1	07/06/2017 11:52	WG996080
Toluene	U		0.412	0.500	1	07/06/2017 11:52	WG996080
1,2,3-Trichlorobenzene	U	JO J3	0.164	0.500	1	07/06/2017 11:52	WG996080
1,2,4-Trichlorobenzene	U	J3	0.355	0.500	1	07/06/2017 11:52	WG996080
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/06/2017 11:52	WG996080
1,1,2-Trichloroethane	U		0.186	0.500	1	07/06/2017 11:52	WG996080
Trichloroethene	U		0.153	0.500	1	07/06/2017 11:52	WG996080
Trichlorofluoromethane	U		0.130	2.50	1	07/06/2017 11:52	WG996080
1,2,3-Trichloropropane	U		0.247	2.50	1	07/06/2017 11:52	WG996080
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/06/2017 11:52	WG996080
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/06/2017 11:52	WG996080
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/06/2017 11:52	WG996080
Vinyl acetate	U		0.645	5.00	1	07/06/2017 11:52	WG996080
Vinyl chloride	U		0.118	0.500	1	07/06/2017 11:52	WG996080
Xylenes, Total	U		0.316	1.50	1	07/06/2017 11:52	WG996080
(S) Toluene-d8	92.1			80.0-120		07/06/2017 11:52	WG996080
(S) Dibromofluoromethane	80.9			76.0-123		07/06/2017 11:52	WG996080
(S) 4-Bromofluorobenzene	95.1			80.0-120		07/06/2017 11:52	WG996080

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 06/28/17 14:15

L919285

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	07/02/2017 23:50	WG995181
(S) a,a,a-Trifluorotoluene(FID)	93.2			77.0-122		07/02/2017 23:50	WG995181

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	5.00	<u>B J JO</u>	1.05	25.0	1	07/06/2017 12:07	WG996080
Acrylonitrile	U		0.873	5.00	1	07/06/2017 12:07	WG996080
Benzene	U		0.0896	0.500	1	07/06/2017 12:07	WG996080
Bromobenzene	U		0.133	0.500	1	07/06/2017 12:07	WG996080
Bromodichloromethane	U		0.0800	0.500	1	07/06/2017 12:07	WG996080
Bromochloromethane	U		0.145	0.500	1	07/06/2017 12:07	WG996080
Bromoform	U		0.186	0.500	1	07/06/2017 12:07	WG996080
Bromomethane	U		0.157	2.50	1	07/06/2017 12:07	WG996080
n-Butylbenzene	U		0.143	0.500	1	07/06/2017 12:07	WG996080
sec-Butylbenzene	U		0.134	0.500	1	07/06/2017 12:07	WG996080
tert-Butylbenzene	U		0.183	0.500	1	07/06/2017 12:07	WG996080
Carbon disulfide	U		0.101	0.500	1	07/06/2017 12:07	WG996080
Carbon tetrachloride	U		0.159	0.500	1	07/06/2017 12:07	WG996080
Chlorobenzene	U		0.140	0.500	1	07/06/2017 12:07	WG996080
Chlorodibromomethane	U		0.128	0.500	1	07/06/2017 12:07	WG996080
Chloroethane	U		0.141	2.50	1	07/06/2017 12:07	WG996080
Chloroform	U		0.0860	0.500	1	07/06/2017 12:07	WG996080
Chloromethane	U		0.153	1.25	1	07/06/2017 12:07	WG996080
2-Chlorotoluene	U		0.111	0.500	1	07/06/2017 12:07	WG996080
4-Chlorotoluene	U		0.0972	0.500	1	07/06/2017 12:07	WG996080
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/06/2017 12:07	WG996080
1,2-Dibromoethane	U		0.193	0.500	1	07/06/2017 12:07	WG996080
Dibromomethane	U		0.117	0.500	1	07/06/2017 12:07	WG996080
1,2-Dichlorobenzene	U		0.101	0.500	1	07/06/2017 12:07	WG996080
1,3-Dichlorobenzene	U		0.130	0.500	1	07/06/2017 12:07	WG996080
1,4-Dichlorobenzene	U		0.121	0.500	1	07/06/2017 12:07	WG996080
Dichlorodifluoromethane	U		0.127	2.50	1	07/06/2017 12:07	WG996080
1,1-Dichloroethane	U		0.114	0.500	1	07/06/2017 12:07	WG996080
1,2-Dichloroethane	U		0.108	0.500	1	07/06/2017 12:07	WG996080
1,1-Dichloroethene	U		0.188	0.500	1	07/06/2017 12:07	WG996080
cis-1,2-Dichloroethene	0.735		0.0933	0.500	1	07/06/2017 12:07	WG996080
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/06/2017 12:07	WG996080
1,2-Dichloropropane	U		0.190	0.500	1	07/06/2017 12:07	WG996080
1,1-Dichloropropene	U		0.128	0.500	1	07/06/2017 12:07	WG996080
1,3-Dichloropropane	U		0.147	1.00	1	07/06/2017 12:07	WG996080
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/06/2017 12:07	WG996080
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/06/2017 12:07	WG996080
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/06/2017 12:07	WG996080
2,2-Dichloropropane	U		0.0929	0.500	1	07/06/2017 12:07	WG996080
Di-isopropyl ether	U		0.0924	0.500	1	07/06/2017 12:07	WG996080
Ethylbenzene	U		0.158	0.500	1	07/06/2017 12:07	WG996080
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/06/2017 12:07	WG996080
2-Hexanone	U		0.757	5.00	1	07/06/2017 12:07	WG996080
n-Hexane	U		0.305	5.00	1	07/06/2017 12:07	WG996080
Iodomethane	U		0.377	10.0	1	07/06/2017 12:07	WG996080
Isopropylbenzene	U		0.126	0.500	1	07/06/2017 12:07	WG996080
p-Isopropyltoluene	U		0.138	0.500	1	07/06/2017 12:07	WG996080
2-Butanone (MEK)	U		1.28	5.00	1	07/06/2017 12:07	WG996080
Methylene Chloride	U		1.07	2.50	1	07/06/2017 12:07	WG996080

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/28/17 14:15

L919285

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/06/2017 12:07	WG996080
Methyl tert-butyl ether	U		0.102	0.500	1	07/06/2017 12:07	WG996080
Naphthalene	U	<u>JO J3</u>	0.174	2.50	1	07/06/2017 12:07	WG996080
n-Propylbenzene	U		0.162	0.500	1	07/06/2017 12:07	WG996080
Styrene	U		0.117	0.500	1	07/06/2017 12:07	WG996080
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/06/2017 12:07	WG996080
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/06/2017 12:07	WG996080
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/06/2017 12:07	WG996080
Tetrachloroethene	0.834		0.199	0.500	1	07/06/2017 12:07	WG996080
Toluene	U		0.412	0.500	1	07/06/2017 12:07	WG996080
1,2,3-Trichlorobenzene	U	<u>JO J3</u>	0.164	0.500	1	07/06/2017 12:07	WG996080
1,2,4-Trichlorobenzene	U	<u>J3</u>	0.355	0.500	1	07/06/2017 12:07	WG996080
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/06/2017 12:07	WG996080
1,1,2-Trichloroethane	U		0.186	0.500	1	07/06/2017 12:07	WG996080
Trichloroethene	0.582		0.153	0.500	1	07/06/2017 12:07	WG996080
Trichlorofluoromethane	U		0.130	2.50	1	07/06/2017 12:07	WG996080
1,2,3-Trichloropropane	U		0.247	2.50	1	07/06/2017 12:07	WG996080
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/06/2017 12:07	WG996080
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/06/2017 12:07	WG996080
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/06/2017 12:07	WG996080
Vinyl acetate	U		0.645	5.00	1	07/06/2017 12:07	WG996080
Vinyl chloride	0.424	<u>J</u>	0.118	0.500	1	07/06/2017 12:07	WG996080
Xylenes, Total	U		0.316	1.50	1	07/06/2017 12:07	WG996080
(S) Toluene-d8	92.8			80.0-120		07/06/2017 12:07	WG996080
(S) Dibromofluoromethane	80.7			76.0-123		07/06/2017 12:07	WG996080
(S) 4-Bromofluorobenzene	94.9			80.0-120		07/06/2017 12:07	WG996080

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3231695-2 07/07/17 09:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	2860	J	2710	20000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L920001-02 Original Sample (OS) • Duplicate (DUP)

(OS) L920001-02 07/07/17 14:32 • (DUP) R3231695-6 07/07/17 14:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	92400	94000	1	2.00		20

L919107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919107-01 07/07/17 09:22 • (DUP) R3231695-3 07/07/17 09:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	145000	143000	1	2.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231695-4 07/07/17 10:44 • (LCSD) R3231695-5 07/07/17 12:10

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	107000	108000	107	108	85.0-115			1.00	20



Method Blank (MB)

(MB) R3230468-1 06/30/17 16:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L918857-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918857-01 06/30/17 17:52 • (DUP) R3230468-4 06/30/17 18:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	3210	3230	1	1		15
Nitrate	751	747	1	1		15
Sulfate	7970	8000	1	0		15

L918863-04 Original Sample (OS) • Duplicate (DUP)

(OS) L918863-04 06/30/17 20:51 • (DUP) R3230468-6 06/30/17 21:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	2100	2100	1	0		15
Nitrate	163	177	1	8		15
Sulfate	6990	7030	1	1		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230468-2 06/30/17 16:29 • (LCSD) R3230468-3 06/30/17 16:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	40000	39900	40100	100	100	80-120			0	15
Nitrate	8000	8300	8320	104	104	80-120			0	15
Sulfate	40000	40600	40600	101	102	80-120			0	15

L918863-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L918863-01 06/30/17 18:52 • (MS) R3230468-5 06/30/17 19:36

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	50000	1030	51100	100	1	80-120	
Nitrate	5000	ND	4720	94	1	80-120	



[L919285-02](#)

L918863-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L918863-01 06/30/17 18:52 • (MS) R3230468-5 06/30/17 19:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50000	ND	50400	99	1	80-120	

L919285-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919285-02 07/01/17 00:05 • (MS) R3230468-7 07/01/17 00:20 • (MSD) R3230468-8 07/01/17 00:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	13700	63100	63300	99	99	1	80-120			0	15
Nitrate	5000	U	4680	4770	94	95	1	80-120			2	15
Sulfate	50000	56100	103000	103000	95	95	1	80-120	<u>E</u>	<u>E</u>	0	15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3231265-1 07/05/17 09:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L919032-06 Original Sample (OS) • Duplicate (DUP)

(OS) L919032-06 07/05/17 11:05 • (DUP) R3231265-4 07/05/17 11:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	ND	847	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231265-5 07/05/17 12:04 • (LCSD) R3231265-6 07/05/17 15:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	74700	70400	100	94	85-115			6	20

L919032-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919032-05 07/05/17 10:26 • (MS) R3231265-2 07/05/17 10:40 • (MSD) R3231265-3 07/05/17 10:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	ND	48800	48600	98	97	1	80-120			0	20



Method Blank (MB)

(MB) R3231167-7 07/05/17 20:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Manganese	U		0.250	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Method Blank (MB)

(MB) R3231189-1 07/05/17 23:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	20.0	J	15.0	100

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231167-8 07/05/17 20:50 • (LCSD) R3231167-9 07/05/17 20:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Manganese	50.0	54.9	54.6	110	109	80-120			1	20

⁷ Gl

⁸ Al

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231189-2 07/05/17 23:19 • (LCSD) R3231189-3 07/05/17 23:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5660	5690	113	114	80-120			0	20

⁹ Sc

L919100-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919100-01 07/05/17 20:57 • (MS) R3231167-11 07/05/17 21:04 • (MSD) R3231167-12 07/05/17 21:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Manganese	50.0	2200	2250	2230	84	55	1	75-125		V	1	20

L919100-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919100-01 07/05/17 23:30 • (MS) R3231189-5 07/05/17 23:41 • (MSD) R3231189-6 07/05/17 23:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	21800	25000	25800	64	79	1	75-125	V		3	20



Method Blank (MB)

(MB) R3231380-2 07/02/17 08:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	92.6			77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231380-1 07/02/17 07:33 • (LCSD) R3231380-3 07/02/17 20:33

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	5940	5790	108	105	72.0-134			2.54	20
(S) a,a,a-Trifluorotoluene(FID)				102	106	77.0-122				

5 Sr

6 Qc

7 Gl

L919415-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919415-03 07/03/17 17:31 • (MS) R3231380-4 07/03/17 17:53 • (MSD) R3231380-5 07/03/17 18:15

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	386	1120	1010	13.3	11.3	1	23.0-159	J6	J6	10.6	20
(S) a,a,a-Trifluorotoluene(FID)					93.2	87.5		77.0-122				

8 Al

9 Sc



Method Blank (MB)

(MB) R3230960-1 07/05/17 10:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L918982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L918982-01 07/05/17 10:37 • (DUP) R3230960-2 07/05/17 11:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	0.000	1	0.000		20
Ethane	U	0.000	1	0.000		20
Ethene	U	0.000	1	0.000		20

L919503-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919503-01 07/05/17 11:38 • (DUP) R3230960-3 07/05/17 12:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	3250	3450	1	5.86	E	20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3230960-4 07/05/17 12:06 • (LCSD) R3230960-5 07/05/17 12:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	73.8	71.1	109	105	70.0-130			3.72	20
Ethane	129	140	125	109	97.2	70.0-130			11.1	20
Ethene	127	134	119	106	94.1	70.0-130			11.5	20



Method Blank (MB)

(MB) R3231831-3 07/06/17 10:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	2.83	J	1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3231831-3 07/06/17 10:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	0.294	J	0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	92.0			80.0-120
(S) Dibromofluoromethane	81.1			76.0-123
(S) 4-Bromofluorobenzene	93.7			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231831-1 07/06/17 09:14 • (LCSD) R3231831-2 07/06/17 09:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	157	163	126	130	10.0-160			3.55	23
Acrylonitrile	125	107	109	85.3	86.9	60.0-142			1.95	20
Benzene	25.0	21.8	22.2	87.1	88.8	69.0-123			1.98	20
Bromobenzene	25.0	25.9	26.6	104	106	79.0-120			2.55	20
Bromodichloromethane	25.0	24.6	24.6	98.2	98.3	76.0-120			0.0200	20
Bromochloromethane	25.0	22.1	22.1	88.5	88.3	76.0-122			0.190	20
Bromoform	25.0	25.9	26.2	103	105	67.0-132			1.32	20
Bromomethane	25.0	24.4	22.7	97.4	90.7	18.0-160			7.13	20
n-Butylbenzene	25.0	24.6	24.3	98.4	97.1	72.0-126			1.32	20
sec-Butylbenzene	25.0	26.9	27.8	108	111	74.0-121			3.33	20
tert-Butylbenzene	25.0	27.3	28.3	109	113	75.0-122			3.67	20
Carbon disulfide	25.0	21.4	21.8	85.8	87.4	55.0-127			1.87	20
Carbon tetrachloride	25.0	22.6	23.2	90.5	92.6	63.0-122			2.34	20
Chlorobenzene	25.0	26.2	26.4	105	106	79.0-121			1.05	20
Chlorodibromomethane	25.0	26.1	26.5	104	106	75.0-125			1.74	20
Chloroethane	25.0	25.1	25.2	100	101	47.0-152			0.380	20
Chloroform	25.0	22.2	22.6	88.7	90.3	72.0-121			1.86	20
Chloromethane	25.0	21.6	21.5	86.5	86.1	48.0-139			0.450	20
2-Chlorotoluene	25.0	26.1	27.0	104	108	74.0-122			3.58	20
4-Chlorotoluene	25.0	25.9	26.6	104	107	79.0-120			2.83	20
1,2-Dibromo-3-Chloropropane	25.0	22.2	24.3	88.8	97.4	64.0-127			9.22	20
1,2-Dibromoethane	25.0	25.4	25.6	102	102	77.0-123			0.820	20
Dibromomethane	25.0	23.8	24.2	95.2	97.0	78.0-120			1.85	20
1,2-Dichlorobenzene	25.0	24.2	24.4	96.8	97.8	80.0-120			1.03	20
1,3-Dichlorobenzene	25.0	25.9	26.6	104	106	72.0-123			2.52	20
1,4-Dichlorobenzene	25.0	23.8	24.1	95.4	96.5	77.0-120			1.19	20
Dichlorodifluoromethane	25.0	25.1	25.4	100	102	49.0-155			1.47	20
1,1-Dichloroethane	25.0	21.3	22.0	85.2	88.0	70.0-126			3.24	20
1,2-Dichloroethane	25.0	21.4	21.8	85.5	87.1	67.0-126			1.86	20
1,1-Dichloroethene	25.0	21.8	22.2	87.1	88.7	64.0-129			1.76	20
cis-1,2-Dichloroethene	25.0	22.0	22.4	87.8	89.5	73.0-120			1.94	20
trans-1,2-Dichloroethene	25.0	22.4	23.0	89.8	92.0	71.0-121			2.41	20
1,2-Dichloropropane	25.0	23.1	23.5	92.5	94.1	75.0-125			1.78	20
1,1-Dichloropropene	25.0	22.2	23.1	88.9	92.5	71.0-129			3.99	20
1,3-Dichloropropane	25.0	24.5	24.4	98.2	97.6	80.0-121			0.560	20
cis-1,3-Dichloropropene	25.0	24.2	24.1	96.9	96.5	79.0-123			0.380	20
trans-1,3-Dichloropropene	25.0	23.9	23.8	95.7	95.2	74.0-127			0.610	20
trans-1,4-Dichloro-2-butene	25.0	24.8	25.6	99.1	103	55.0-134			3.43	20
2,2-Dichloropropane	25.0	23.1	23.6	92.4	94.2	60.0-125			1.98	20
Di-isopropyl ether	25.0	20.7	21.0	82.6	84.1	59.0-133			1.75	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231831-1 07/06/17 09:14 • (LCSD) R3231831-2 07/06/17 09:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	25.8	26.4	103	105	77.0-120			2.06	20
Hexachloro-1,3-butadiene	25.0	21.4	25.3	85.5	101	64.0-131			16.7	20
2-Hexanone	125	138	134	110	107	58.0-147			3.17	20
n-Hexane	25.0	21.7	21.8	86.7	87.2	56.0-124			0.530	20
Iodomethane	125	115	117	92.3	93.6	57.0-140			1.43	20
Isopropylbenzene	25.0	26.9	27.8	108	111	75.0-120			3.33	20
p-Isopropyltoluene	25.0	27.0	27.8	108	111	74.0-126			3.00	20
2-Butanone (MEK)	125	106	103	84.6	82.3	37.0-158			2.75	20
Methylene Chloride	25.0	21.0	21.3	83.8	85.2	66.0-121			1.66	20
4-Methyl-2-pentanone (MIBK)	125	118	116	94.6	92.9	59.0-143			1.86	20
Methyl tert-butyl ether	25.0	21.4	21.7	85.5	86.7	64.0-123			1.39	20
Naphthalene	25.0	18.2	28.1	72.8	112	62.0-128		J3	42.8	20
n-Propylbenzene	25.0	26.6	27.5	106	110	79.0-120			3.22	20
Styrene	25.0	26.1	26.6	104	107	78.0-124			1.91	20
1,1,1,2-Tetrachloroethane	25.0	26.3	26.7	105	107	75.0-122			1.51	20
1,1,2,2-Tetrachloroethane	25.0	25.7	26.3	103	105	71.0-122			2.52	20
1,1,2-Trichlorotrifluoroethane	25.0	22.7	22.7	90.8	90.7	61.0-136			0.150	20
Tetrachloroethene	25.0	26.7	26.9	107	108	70.0-127			1.04	20
Toluene	25.0	24.5	24.7	98.0	98.9	77.0-120			0.940	20
1,2,3-Trichlorobenzene	25.0	16.4	28.7	65.8	115	61.0-133		J3	54.3	20
1,2,4-Trichlorobenzene	25.0	20.4	25.3	81.7	101	69.0-129		J3	21.1	20
1,1,1-Trichloroethane	25.0	23.0	23.8	91.8	95.3	68.0-122			3.75	20
1,1,2-Trichloroethane	25.0	26.0	26.1	104	104	78.0-120			0.140	20
Trichloroethene	25.0	25.2	25.7	101	103	78.0-120			1.81	20
Trichlorofluoromethane	25.0	24.0	24.1	95.9	96.4	56.0-137			0.510	20
1,2,3-Trichloropropane	25.0	25.7	25.9	103	104	72.0-124			0.960	20
1,2,4-Trimethylbenzene	25.0	25.3	25.9	101	104	75.0-120			2.27	20
1,2,3-Trimethylbenzene	25.0	24.2	24.6	96.9	98.2	75.0-120			1.32	20
1,3,5-Trimethylbenzene	25.0	26.5	27.3	106	109	75.0-120			3.20	20
Vinyl acetate	125	111	111	89.2	89.1	46.0-160			0.120	20
Vinyl chloride	25.0	23.2	23.7	92.6	94.9	64.0-133			2.44	20
Xylenes, Total	75.0	76.7	78.5	102	105	77.0-120			2.32	20
(S) Toluene-d8				91.2	91.9	80.0-120				
(S) Dibromofluoromethane				80.8	82.0	76.0-123				
(S) 4-Bromofluorobenzene				92.2	94.2	80.0-120				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier Description

B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
V	The sample concentration is too high to evaluate accurate spike recoveries.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

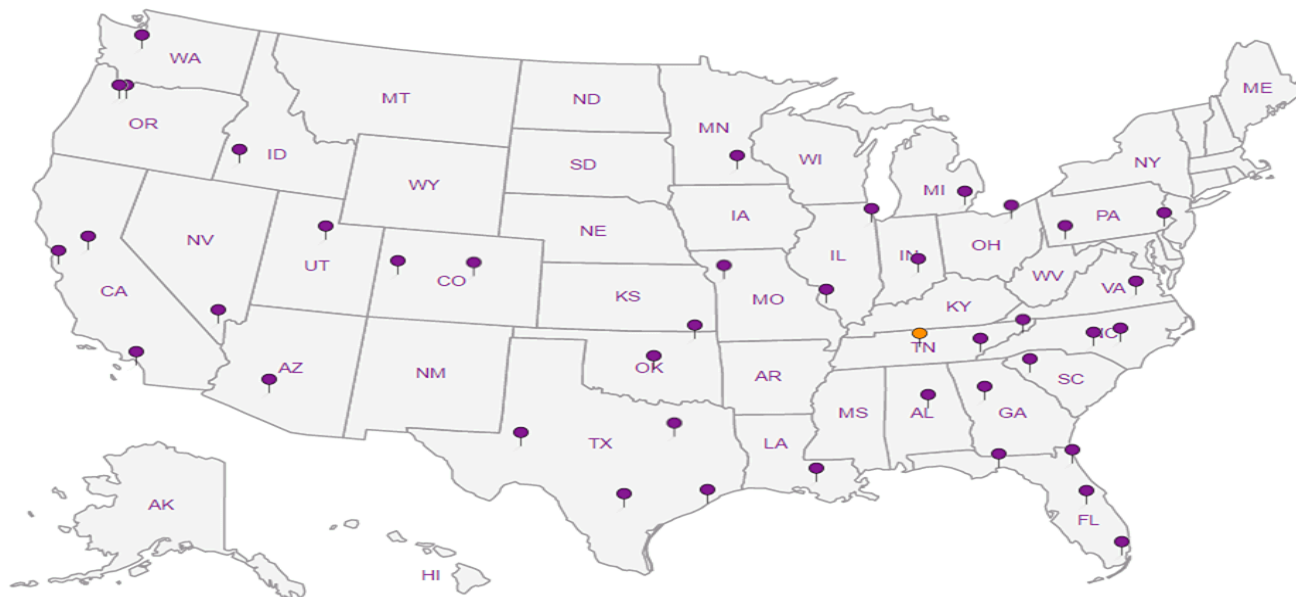
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres
Chk

Report to:
Bill Haldeman

Email To: bhaldean@pesenv.com

Project
Description: American Linen Supply

City/State
Collected: SEATTLE, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project #
1413.001.02.002

Lab Project #
PESENVSWA-141300102

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
700 DEXTER AVE N SEATTLE

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

Immediately
Packed on Ice N Y

No.
of
Cnts

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebaron Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# 1919285
A043

Accnum: PESENVSWA

Template: T124201

Prelogin: P603202

TSR: 110 - Brian Ford

PB: 5-31-17

Shipped Via: FedEx Ground

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	* Alk, Cl, NO3, SO4 250ml HDPE - No Pres	NWTPHGX 40ml Amb HCl	TOC 250ml Amb-HCl	Total Fe Mn 6020 250ml HDPE-HNO3	low level 8260C 40ml Amb-HCl	low level RSK175 40ml Amb-HCl
MW125-062817	GRAB	GW	26	6/28/17	09:10	6						
MW120-062817	GRAB	GW	45	6/28/17	10:50	4						
MW119-062817	↓	GW	40	↓	12:45	9						
		GW			14:15	6						
MW125-062817	GRAB	GW	26	6/28/17	09:10	6						
R-MW3-062817	↓	GW	15.5	↓	14:15	6						
		GW										
		GW										
		GW										
		GW										

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NO3 nitrate has a 48 hour holding time

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
UPS ___ FedEx ___ Courier _____

Tracking #

Trip Blank Received: Yes No
HCL / MeOH
TBR

Temp: 0.25°C Bottles Received: 25

Date: 6-29-17 Time: 8:45

Sample Receipt Checklist
 COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)
[Signature]

Date:

6/28/17

Time:

1500

Received by: (Signature)

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)
[Signature]

Date: 6-29-17 Time: 8:45

Hold: Condition: NCF /

MEMORANDUM

TO: Project File **DATE:** July 26, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 28, 2017- Groundwater Samples
LAB: ESC Lab ID L919285

Four (4) groundwater samples were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 28, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L919285. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L919285 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 0.2 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

All samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

The sample was analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

The sample was analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

The sample was analyzed within the USEPA recommended holding time 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met with one exception:

Sample MW119-062817 nitrate analysis was performed about 12 hours past the recommended 48-hour hold time. **Sample MW119-062817 nitrate result is estimated and qualified (UJ).**

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C*: Continuing calibration verification (CCV) issues were noted by ESC for acetone, naphthalene, and 1,2,3-trichlorobenzene associated with analytical batch WG996080 (analyzed on July 6, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated sample results for naphthalene are estimated and qualified (UJ or J). All acetone and 1,2,3-trichlorobenzene detections are qualified as not detected (U) due to blank contamination (this qualifier supersedes the calibration qualifier).** Refer to the discussion under method blanks for further details.

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

- Low level acetone and 1,2,3-trichlorobenzene detections are reported in the method blank (WG996080). Detections are less than the RDLs but greater than the method detection limits (MDLs). Low levels of acetone and 1,2,3-trichlorobenzene were reported in samples MW120-062817 and MW119-062817. A low level of acetone was detected in sample R-MW3-062817. **Acetone and 1,2,3-trichlorobenzene detections in these three samples are qualified as non-detect (U) due to blank contamination.**

NWTPH-Gx Method:

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

Method RSK-175:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

USEPA Method 6020:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks below the RDL with the following exception:

- A low level of iron was detected in the method blank between the RDL and method detection limit (MDL). No action was necessary as associated iron sample results are significantly greater than the detection in the blank.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- A low level of alkalinity was measured in the method blank between the RDL and MDL. No action was necessary as associated alkalinity sample results are significantly greater than the detection in the blank.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected. Refer to SDGs L918687 and L919954 for field duplicate results.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Method RSK-175:

Laboratory duplicate samples were performed on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20%.

EPA Method 9056A: Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

EPA Method 9060A: A laboratory duplicate sample analyses was performed on a non-client sample. The primary/duplicate RPD for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water with the following discussion:

- LCS/LCSD (Batch WG996080) RPD values for compounds naphthalene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are within control limits.

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method along with each analytical batch. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

NWTPH-Gx Method:

Matrix spike analysis was performed on a non-client sample. MS/MSD % Rs were below the laboratory control criteria for water due to matrix interference. No action was taken in this case since the spike was performed on an unrelated sample and LCS/LCSD results are acceptable.

Method RSK-175:

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information on accuracy and precision.

USEPA Method 6020:

MS/MSD analysis was performed on sample another client sample within the analytical batch. Manganese and iron sample amounts are greater than four times the spike amount and the spike recoveries were not within acceptance criteria. No action was taken other than to note this.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS and MS/MSD analysis were performed on non-client sample and on sample MW119-062817 within the analytical batches. MS % Rs and MS/MSD % Rs and RPDs were within the laboratory control criteria for water.

EPA Method 9060A: MS/MSD analyses for TOC were performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

MW120-062817

Collected date/time: 06/28/17 10:50

SAMPLE RESULTS - 01

L919285

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	3.40	U B J J O	1.05	25.0	1	07/06/2017 11:22	WG996080
Acrylonitrile	U		0.873	5.00	1	07/06/2017 11:22	WG996080
Benzene	U		0.0896	0.500	1	07/06/2017 11:22	WG996080
Bromobenzene	U		0.133	0.500	1	07/06/2017 11:22	WG996080
Bromodichloromethane	U		0.0800	0.500	1	07/06/2017 11:22	WG996080
Bromochloromethane	U		0.145	0.500	1	07/06/2017 11:22	WG996080
Bromoform	U		0.186	0.500	1	07/06/2017 11:22	WG996080
Bromomethane	U		0.157	2.50	1	07/06/2017 11:22	WG996080
n-Butylbenzene	U		0.143	0.500	1	07/06/2017 11:22	WG996080
sec-Butylbenzene	U		0.134	0.500	1	07/06/2017 11:22	WG996080
tert-Butylbenzene	U		0.183	0.500	1	07/06/2017 11:22	WG996080
Carbon disulfide	U		0.101	0.500	1	07/06/2017 11:22	WG996080
Carbon tetrachloride	U		0.159	0.500	1	07/06/2017 11:22	WG996080
Chlorobenzene	U		0.140	0.500	1	07/06/2017 11:22	WG996080
Chlorodibromomethane	U		0.128	0.500	1	07/06/2017 11:22	WG996080
Chloroethane	U		0.141	2.50	1	07/06/2017 11:22	WG996080
Chloroform	U		0.0860	0.500	1	07/06/2017 11:22	WG996080
Chloromethane	U		0.153	1.25	1	07/06/2017 11:22	WG996080
2-Chlorotoluene	U		0.111	0.500	1	07/06/2017 11:22	WG996080
4-Chlorotoluene	U		0.0972	0.500	1	07/06/2017 11:22	WG996080
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/06/2017 11:22	WG996080
1,2-Dibromoethane	U		0.193	0.500	1	07/06/2017 11:22	WG996080
Dibromomethane	U		0.117	0.500	1	07/06/2017 11:22	WG996080
1,2-Dichlorobenzene	U		0.101	0.500	1	07/06/2017 11:22	WG996080
1,3-Dichlorobenzene	U		0.130	0.500	1	07/06/2017 11:22	WG996080
1,4-Dichlorobenzene	U		0.121	0.500	1	07/06/2017 11:22	WG996080
Dichlorodifluoromethane	U		0.127	2.50	1	07/06/2017 11:22	WG996080
1,1-Dichloroethane	1.57		0.114	0.500	1	07/06/2017 11:22	WG996080
1,2-Dichloroethane	0.211	U J J	0.108	0.500	1	07/06/2017 11:22	WG996080
1,1-Dichloroethene	0.251		0.188	0.500	1	07/06/2017 11:22	WG996080
cis-1,2-Dichloroethene	16.0		0.0933	0.500	1	07/06/2017 11:22	WG996080
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/06/2017 11:22	WG996080
1,2-Dichloropropane	0.762		0.190	0.500	1	07/06/2017 11:22	WG996080
1,1-Dichloropropene	U		0.128	0.500	1	07/06/2017 11:22	WG996080
1,3-Dichloropropane	U		0.147	1.00	1	07/06/2017 11:22	WG996080
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/06/2017 11:22	WG996080
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/06/2017 11:22	WG996080
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/06/2017 11:22	WG996080
2,2-Dichloropropane	U		0.0929	0.500	1	07/06/2017 11:22	WG996080
Di-Isopropyl ether	U		0.0924	0.500	1	07/06/2017 11:22	WG996080
Ethylbenzene	U		0.158	0.500	1	07/06/2017 11:22	WG996080
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/06/2017 11:22	WG996080
2-Hexanone	U		0.757	5.00	1	07/06/2017 11:22	WG996080
n-Hexane	U		0.305	5.00	1	07/06/2017 11:22	WG996080
Iodomethane	U		0.377	10.0	1	07/06/2017 11:22	WG996080
Isopropylbenzene	U		0.126	0.500	1	07/06/2017 11:22	WG996080
p-Isopropyltoluene	U		0.138	0.500	1	07/06/2017 11:22	WG996080
2-Butanone (MEK)	U		1.28	5.00	1	07/06/2017 11:22	WG996080
Methylene Chloride	U		1.07	2.50	1	07/06/2017 11:22	WG996080
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/06/2017 11:22	WG996080
Methyl tert-butyl ether	U		0.102	0.500	1	07/06/2017 11:22	WG996080
Naphthalene	0.384	U J J O J 3	0.174	2.50	1	07/06/2017 11:22	WG996080
n-Propylbenzene	U		0.162	0.500	1	07/06/2017 11:22	WG996080
Styrene	U		0.117	0.500	1	07/06/2017 11:22	WG996080
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/06/2017 11:22	WG996080
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/06/2017 11:22	WG996080

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc



Collected date/time: 06/28/17 10:50

L919285

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,2-Trichlorotrifluoroethane	0.418	J	0.164	0.500	1	07/06/2017 11:22	WG996080	Cp
Tetrachloroethene	18.0	J	0.199	0.500	1	07/06/2017 11:22	WG996080	Tc
Toluene	U		0.412	0.500	1	07/06/2017 11:22	WG996080	Ss
1,2,3-Trichlorobenzene	0.456	U B J J0 J3	0.164	0.500	1	07/06/2017 11:22	WG996080	Cn
1,2,4-Trichlorobenzene	U	J3	0.355	0.500	1	07/06/2017 11:22	WG996080	Sr
1,1,1-Trichloroethane	0.278	J	0.0940	0.500	1	07/06/2017 11:22	WG996080	Qc
1,1,2-Trichloroethane	U		0.186	0.500	1	07/06/2017 11:22	WG996080	Gl
Trichloroethene	6.97		0.153	0.500	1	07/06/2017 11:22	WG996080	Al
Trichlorofluoromethane	U		0.130	2.50	1	07/06/2017 11:22	WG996080	Sc
1,2,3-Trichloropropane	U		0.247	2.50	1	07/06/2017 11:22	WG996080	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/06/2017 11:22	WG996080	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/06/2017 11:22	WG996080	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/06/2017 11:22	WG996080	
Vinyl acetate	U		0.645	5.00	1	07/06/2017 11:22	WG996080	
Vinyl chloride	0.988		0.118	0.500	1	07/06/2017 11:22	WG996080	
Xylenes, Total	U		0.316	1.50	1	07/06/2017 11:22	WG996080	
(S) Toluene-d8	91.1			80.0-120		07/06/2017 11:22	WG996080	
(S) Dibromofluoromethane	83.0			76.0-123		07/06/2017 11:22	WG996080	
(S) 4-Bromofluorobenzene	90.6			80.0-120		07/06/2017 11:22	WG996080	

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Alkalinity	360000		2710	20000	1	07/07/2017 11:12	WG996482

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	13700		51.9	1000	1	07/01/2017 00:05	WG993864
Nitrate	U	KS Q	22.7	100	1	07/01/2017 00:05	WG993864
Sulfate	56100		77.4	5000	1	07/01/2017 00:05	WG993864

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	9090		102	1000	1	07/05/2017 20:02	WG995664

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	5660		15.0	100	1	07/06/2017 00:22	WG995343
Manganese	1250		0.250	5.00	1	07/05/2017 21:57	WG995343

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	73.5		0.287	0.678	1	07/05/2017 11:25	WG993916
Ethane	U		0.296	1.29	1	07/05/2017 11:25	WG993916
Ethene	U		0.422	1.27	1	07/05/2017 11:25	WG993916

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	3.73	W BJJQ	1.05	25.0	1	07/06/2017 11:37	WG996080
Acrylonitrile	U		0.873	5.00	1	07/06/2017 11:37	WG996080
Benzene	U		0.0896	0.500	1	07/06/2017 11:37	WG996080
Bromobenzene	U		0.133	0.500	1	07/06/2017 11:37	WG996080
Bromodichloromethane	U		0.0800	0.500	1	07/06/2017 11:37	WG996080
Bromochloromethane	U		0.145	0.500	1	07/06/2017 11:37	WG996080
Bromoform	U		0.186	0.500	1	07/06/2017 11:37	WG996080
Bromomethane	U		0.157	2.50	1	07/06/2017 11:37	WG996080
n-Butylbenzene	U		0.143	0.500	1	07/06/2017 11:37	WG996080
sec-Butylbenzene	U		0.134	0.500	1	07/06/2017 11:37	WG996080
tert-Butylbenzene	U		0.183	0.500	1	07/06/2017 11:37	WG996080
Carbon disulfide	U		0.101	0.500	1	07/06/2017 11:37	WG996080
Carbon tetrachloride	U		0.159	0.500	1	07/06/2017 11:37	WG996080
Chlorobenzene	U		0.140	0.500	1	07/06/2017 11:37	WG996080
Chlorodibromomethane	U		0.128	0.500	1	07/06/2017 11:37	WG996080
Chloroethane	U		0.141	2.50	1	07/06/2017 11:37	WG996080
Chloroform	U		0.0860	0.500	1	07/06/2017 11:37	WG996080
Chloromethane	U		0.153	1.25	1	07/06/2017 11:37	WG996080
2-Chlorotoluene	U		0.111	0.500	1	07/06/2017 11:37	WG996080
4-Chlorotoluene	U		0.0972	0.500	1	07/06/2017 11:37	WG996080
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/06/2017 11:37	WG996080
1,2-Dibromoethane	U		0.193	0.500	1	07/06/2017 11:37	WG996080
Dibromomethane	U		0.117	0.500	1	07/06/2017 11:37	WG996080

MW119-062817

SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.

Collected date/time: 06/28/17 12:45

L919285

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dichlorobenzene	U		0.101	0.500	1	07/06/2017 11:37	WG996080
1,3-Dichlorobenzene	U		0.130	0.500	1	07/06/2017 11:37	WG996080
1,4-Dichlorobenzene	U		0.121	0.500	1	07/06/2017 11:37	WG996080
Dichlorodifluoromethane	U		0.127	2.50	1	07/06/2017 11:37	WG996080
1,1-Dichloroethane	U		0.114	0.500	1	07/06/2017 11:37	WG996080
1,2-Dichloroethane	U		0.108	0.500	1	07/06/2017 11:37	WG996080
1,1-Dichloroethene	U		0.188	0.500	1	07/06/2017 11:37	WG996080
cis-1,2-Dichloroethene	5.99		0.0933	0.500	1	07/06/2017 11:37	WG996080
trans-1,2-Dichloroethene	0.167	J	0.152	0.500	1	07/06/2017 11:37	WG996080
1,2-Dichloropropane	U		0.190	0.500	1	07/06/2017 11:37	WG996080
1,1-Dichloropropene	U		0.128	0.500	1	07/06/2017 11:37	WG996080
1,3-Dichloropropane	U		0.147	1.00	1	07/06/2017 11:37	WG996080
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/06/2017 11:37	WG996080
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/06/2017 11:37	WG996080
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/06/2017 11:37	WG996080
2,2-Dichloropropane	U		0.0929	0.500	1	07/06/2017 11:37	WG996080
Di-isopropyl ether	U		0.0924	0.500	1	07/06/2017 11:37	WG996080
Ethylbenzene	U		0.158	0.500	1	07/06/2017 11:37	WG996080
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/06/2017 11:37	WG996080
2-Hexanone	U		0.757	5.00	1	07/06/2017 11:37	WG996080
n-Hexane	U		0.305	5.00	1	07/06/2017 11:37	WG996080
Iodomethane	U		0.377	10.0	1	07/06/2017 11:37	WG996080
Isopropylbenzene	U		0.126	0.500	1	07/06/2017 11:37	WG996080
p-Isopropyltoluene	U		0.138	0.500	1	07/06/2017 11:37	WG996080
2-Butanone (MEK)	U		1.28	5.00	1	07/06/2017 11:37	WG996080
Methylene Chloride	U		1.07	2.50	1	07/06/2017 11:37	WG996080
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/06/2017 11:37	WG996080
Methyl tert-butyl ether	U		0.102	0.500	1	07/06/2017 11:37	WG996080
Naphthalene	U	UJ JO J3	0.174	2.50	1	07/06/2017 11:37	WG996080
n-Propylbenzene	U		0.162	0.500	1	07/06/2017 11:37	WG996080
Styrene	U		0.117	0.500	1	07/06/2017 11:37	WG996080
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/06/2017 11:37	WG996080
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/06/2017 11:37	WG996080
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/06/2017 11:37	WG996080
Tetrachloroethene	19.0		0.199	0.500	1	07/06/2017 11:37	WG996080
Toluene	0.726		0.412	0.500	1	07/06/2017 11:37	WG996080
1,2,3-Trichlorobenzene	0.165	U B J J O J3	0.164	0.500	1	07/06/2017 11:37	WG996080
1,2,4-Trichlorobenzene	U	J3	0.355	0.500	1	07/06/2017 11:37	WG996080
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/06/2017 11:37	WG996080
1,1,2-Trichloroethane	U		0.186	0.500	1	07/06/2017 11:37	WG996080
Trichloroethene	12.4		0.153	0.500	1	07/06/2017 11:37	WG996080
Trichlorofluoromethane	U		0.130	2.50	1	07/06/2017 11:37	WG996080
1,2,3-Trichloropropane	U		0.247	2.50	1	07/06/2017 11:37	WG996080
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/06/2017 11:37	WG996080
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/06/2017 11:37	WG996080
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/06/2017 11:37	WG996080
Vinyl acetate	U		0.645	5.00	1	07/06/2017 11:37	WG996080
Vinyl chloride	U		0.118	0.500	1	07/06/2017 11:37	WG996080
Xylenes, Total	0.562	J	0.316	1.50	1	07/06/2017 11:37	WG996080
(S) Toluene-d8	92.2	/		80.0-120		07/06/2017 11:37	WG996080
(S) Dibromofluoromethane	83.0	/		76.0-123		07/06/2017 11:37	WG996080
(S) 4-Bromofluorobenzene	95.4	/		80.0-120		07/06/2017 11:37	WG996080

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 06/28/17 09:10

L919285

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	07/02/2017 23:28	WG995181
(S) o,a,a-Trifluorotoluene(FID) 92.1				77.0-122		07/02/2017 23:28	WG995181

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/06/2017 11:52	WG996080
Acrylonitrile	U		0.873	5.00	1	07/06/2017 11:52	WG996080
Benzene	U		0.0896	0.500	1	07/06/2017 11:52	WG996080
Bromobenzene	U		0.133	0.500	1	07/06/2017 11:52	WG996080
Bromodichloromethane	U		0.0800	0.500	1	07/06/2017 11:52	WG996080
Bromochloromethane	U		0.145	0.500	1	07/06/2017 11:52	WG996080
Bromoform	U		0.186	0.500	1	07/06/2017 11:52	WG996080
Bromomethane	U		0.157	2.50	1	07/06/2017 11:52	WG996080
n-Butylbenzene	U		0.143	0.500	1	07/06/2017 11:52	WG996080
sec-Butylbenzene	U		0.134	0.500	1	07/06/2017 11:52	WG996080
tert-Butylbenzene	U		0.183	0.500	1	07/06/2017 11:52	WG996080
Carbon disulfide	U		0.101	0.500	1	07/06/2017 11:52	WG996080
Carbon tetrachloride	U		0.159	0.500	1	07/06/2017 11:52	WG996080
Chlorobenzene	U		0.140	0.500	1	07/06/2017 11:52	WG996080
Chlorodibromomethane	U		0.128	0.500	1	07/06/2017 11:52	WG996080
Chloroethane	U		0.141	2.50	1	07/06/2017 11:52	WG996080
Chloroform	U		0.0860	0.500	1	07/06/2017 11:52	WG996080
Chloromethane	U		0.153	1.25	1	07/06/2017 11:52	WG996080
2-Chlorotoluene	U		0.111	0.500	1	07/06/2017 11:52	WG996080
4-Chlorotoluene	U		0.0972	0.500	1	07/06/2017 11:52	WG996080
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/06/2017 11:52	WG996080
1,2-Dibromoethane	U		0.193	0.500	1	07/06/2017 11:52	WG996080
Dibromomethane	U		0.117	0.500	1	07/06/2017 11:52	WG996080
1,2-Dichlorobenzene	U		0.101	0.500	1	07/06/2017 11:52	WG996080
1,3-Dichlorobenzene	U		0.130	0.500	1	07/06/2017 11:52	WG996080
1,4-Dichlorobenzene	U		0.121	0.500	1	07/06/2017 11:52	WG996080
Dichlorodifluoromethane	U		0.127	2.50	1	07/06/2017 11:52	WG996080
1,1-Dichloroethane	U		0.114	0.500	1	07/06/2017 11:52	WG996080
1,2-Dichloroethane	U		0.108	0.500	1	07/06/2017 11:52	WG996080
1,1-Dichloroethene	U		0.188	0.500	1	07/06/2017 11:52	WG996080
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/06/2017 11:52	WG996080
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/06/2017 11:52	WG996080
1,2-Dichloropropane	U		0.190	0.500	1	07/06/2017 11:52	WG996080
1,1-Dichloropropene	U		0.128	0.500	1	07/06/2017 11:52	WG996080
1,3-Dichloropropane	U		0.147	1.00	1	07/06/2017 11:52	WG996080
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/06/2017 11:52	WG996080
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/06/2017 11:52	WG996080
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/06/2017 11:52	WG996080
2,2-Dichloropropane	U		0.0929	0.500	1	07/06/2017 11:52	WG996080
Di-isopropyl ether	U		0.0924	0.500	1	07/06/2017 11:52	WG996080
Ethylbenzene	U		0.158	0.500	1	07/06/2017 11:52	WG996080
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/06/2017 11:52	WG996080
2-Hexanone	U		0.757	5.00	1	07/06/2017 11:52	WG996080
n-Hexane	U		0.305	5.00	1	07/06/2017 11:52	WG996080
Iodomethane	U		0.377	10.0	1	07/06/2017 11:52	WG996080
Isopropylbenzene	U		0.126	0.500	1	07/06/2017 11:52	WG996080
p-Isopropyltoluene	U		0.138	0.500	1	07/06/2017 11:52	WG996080
2-Butanone (MEK)	U		1.28	5.00	1	07/06/2017 11:52	WG996080
Methylene Chloride	U		1.07	2.50	1	07/06/2017 11:52	WG996080

1 Cp

2 Tc

3 Ss

4 Cn

5 Si

6 Qc

7 GI

8 AI

9 Sc



Collected date/time: 06/28/17 09:10

L919285

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	
	ug/l		ug/l	ug/l		date / time		
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/06/2017 11:52	WG996080	1 Cp
Methyl tert-butyl ether	U		0.102	0.500	1	07/06/2017 11:52	WG996080	2 Tc
Naphthalene	U	VJ JO J3	0.174	2.50	1	07/06/2017 11:52	WG996080	3 Ss
n-Propylbenzene	U		0.162	0.500	1	07/06/2017 11:52	WG996080	4 Cn
Styrene	U		0.117	0.500	1	07/06/2017 11:52	WG996080	Sr
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/06/2017 11:52	WG996080	6 Qc
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/06/2017 11:52	WG996080	7 Gl
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/06/2017 11:52	WG996080	8 Al
Tetrachloroethene	U		0.199	0.500	1	07/06/2017 11:52	WG996080	9 Sc
Toluene	U		0.412	0.500	1	07/06/2017 11:52	WG996080	
1,2,3-Trichlorobenzene	U	VJ JO J3	0.164	0.500	1	07/06/2017 11:52	WG996080	
1,2,4-Trichlorobenzene	U	J3	0.355	0.500	1	07/06/2017 11:52	WG996080	
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/06/2017 11:52	WG996080	
1,1,2-Trichloroethane	U		0.186	0.500	1	07/06/2017 11:52	WG996080	
Trichloroethene	U		0.153	0.500	1	07/06/2017 11:52	WG996080	
Trichlorofluoromethane	U		0.130	2.50	1	07/06/2017 11:52	WG996080	
1,2,3-Trichloropropane	U		0.247	2.50	1	07/06/2017 11:52	WG996080	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/06/2017 11:52	WG996080	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/06/2017 11:52	WG996080	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/06/2017 11:52	WG996080	
Vinyl acetate	U		0.645	5.00	1	07/06/2017 11:52	WG996080	
Vinyl chloride	U		0.118	0.500	1	07/06/2017 11:52	WG996080	
Xylenes, Total	U		0.316	1.50	1	07/06/2017 11:52	WG996080	
(S) Toluene-d8	92.1			80.0-120		07/06/2017 11:52	WG996080	
(S) Dibromofluoromethane	80.9			76.0-123		07/06/2017 11:52	WG996080	
(S) 4-Bromofluorobenzene	95.1			80.0-120		07/06/2017 11:52	WG996080	



Collected date/time: 06/28/17 14:15

L919285

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	07/02/2017 23:50	WG995181
(S) a,a,a-Trifluorotoluene(FID) 93.2				77.0-122		07/02/2017 23:50	WG995181

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	5.00	U B J JO	1.05	25.0	1	07/06/2017 12:07	WG996080
Acrylonitrile	U		0.873	5.00	1	07/06/2017 12:07	WG996080
Benzene	U		0.0896	0.500	1	07/06/2017 12:07	WG996080
Bromobenzene	U		0.133	0.500	1	07/06/2017 12:07	WG996080
Bromodichloromethane	U		0.0800	0.500	1	07/06/2017 12:07	WG996080
Bromochloromethane	U		0.145	0.500	1	07/06/2017 12:07	WG996080
Bromoform	U		0.186	0.500	1	07/06/2017 12:07	WG996080
Bromomethane	U		0.157	2.50	1	07/06/2017 12:07	WG996080
n-Butylbenzene	U		0.143	0.500	1	07/06/2017 12:07	WG996080
sec-Butylbenzene	U		0.134	0.500	1	07/06/2017 12:07	WG996080
tert-Butylbenzene	U		0.183	0.500	1	07/06/2017 12:07	WG996080
Carbon disulfide	U		0.101	0.500	1	07/06/2017 12:07	WG996080
Carbon tetrachloride	U		0.159	0.500	1	07/06/2017 12:07	WG996080
Chlorobenzene	U		0.140	0.500	1	07/06/2017 12:07	WG996080
Chlorodibromomethane	U		0.128	0.500	1	07/06/2017 12:07	WG996080
Chloroethane	U		0.141	2.50	1	07/06/2017 12:07	WG996080
Chloroform	U		0.0860	0.500	1	07/06/2017 12:07	WG996080
Chloromethane	U		0.153	1.25	1	07/06/2017 12:07	WG996080
2-Chlorotoluene	U		0.111	0.500	1	07/06/2017 12:07	WG996080
4-Chlorotoluene	U		0.0972	0.500	1	07/06/2017 12:07	WG996080
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/06/2017 12:07	WG996080
1,2-Dibromoethane	U		0.193	0.500	1	07/06/2017 12:07	WG996080
Dibromomethane	U		0.117	0.500	1	07/06/2017 12:07	WG996080
1,2-Dichlorobenzene	U		0.101	0.500	1	07/06/2017 12:07	WG996080
1,3-Dichlorobenzene	U		0.130	0.500	1	07/06/2017 12:07	WG996080
1,4-Dichlorobenzene	U		0.121	0.500	1	07/06/2017 12:07	WG996080
Dichlorodifluoromethane	U		0.127	2.50	1	07/06/2017 12:07	WG996080
1,1-Dichloroethane	U		0.114	0.500	1	07/06/2017 12:07	WG996080
1,2-Dichloroethane	U		0.108	0.500	1	07/06/2017 12:07	WG996080
1,1-Dichloroethene	U		0.188	0.500	1	07/06/2017 12:07	WG996080
cis-1,2-Dichloroethene	0.735		0.0933	0.500	1	07/06/2017 12:07	WG996080
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/06/2017 12:07	WG996080
1,2-Dichloropropane	U		0.190	0.500	1	07/06/2017 12:07	WG996080
1,1-Dichloropropene	U		0.128	0.500	1	07/06/2017 12:07	WG996080
1,3-Dichloropropane	U		0.147	1.00	1	07/06/2017 12:07	WG996080
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/06/2017 12:07	WG996080
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/06/2017 12:07	WG996080
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/06/2017 12:07	WG996080
2,2-Dichloropropane	U		0.0929	0.500	1	07/06/2017 12:07	WG996080
Di-isopropyl ether	U		0.0924	0.500	1	07/06/2017 12:07	WG996080
Ethylbenzene	U		0.158	0.500	1	07/06/2017 12:07	WG996080
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/06/2017 12:07	WG996080
2-Hexanone	U		0.757	5.00	1	07/06/2017 12:07	WG996080
n-Hexane	U		0.305	5.00	1	07/06/2017 12:07	WG996080
Iodomethane	U		0.377	10.0	1	07/06/2017 12:07	WG996080
Isopropylbenzene	U		0.126	0.500	1	07/06/2017 12:07	WG996080
p-Isopropyltoluene	U		0.138	0.500	1	07/06/2017 12:07	WG996080
2-Butanone (MEK)	U		1.28	5.00	1	07/06/2017 12:07	WG996080
Methylene Chloride	U		1.07	2.50	1	07/06/2017 12:07	WG996080

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc



Collected date/time: 06/28/17 14:15

L919285

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/06/2017 12:07	WG996080	1 Cp
Methyl tert-butyl ether	U		0.102	0.500	1	07/06/2017 12:07	WG996080	2 Tc
Naphthalene	U	UJ JO J3	0.174	2.50	1	07/06/2017 12:07	WG996080	3 Ss
n-Propylbenzene	U		0.162	0.500	1	07/06/2017 12:07	WG996080	4 Cn
Styrene	U		0.117	0.500	1	07/06/2017 12:07	WG996080	5 Sr
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/06/2017 12:07	WG996080	6 Qc
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/06/2017 12:07	WG996080	7 Gl
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/06/2017 12:07	WG996080	8 Al
Tetrachloroethene	0.834		0.199	0.500	1	07/06/2017 12:07	WG996080	9 Sc
Toluene	U		0.412	0.500	1	07/06/2017 12:07	WG996080	
1,2,3-Trichlorobenzene	U	UJ JO J3	0.164	0.500	1	07/06/2017 12:07	WG996080	
1,2,4-Trichlorobenzene	U	J3	0.355	0.500	1	07/06/2017 12:07	WG996080	
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/06/2017 12:07	WG996080	
1,1,2-Trichloroethane	U		0.186	0.500	1	07/06/2017 12:07	WG996080	
Trichloroethene	0.582		0.153	0.500	1	07/06/2017 12:07	WG996080	
Trichlorofluoromethane	U		0.130	2.50	1	07/06/2017 12:07	WG996080	
1,2,3-Trichloropropane	U		0.247	2.50	1	07/06/2017 12:07	WG996080	
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/06/2017 12:07	WG996080	
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/06/2017 12:07	WG996080	
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/06/2017 12:07	WG996080	
Vinyl acetate	U		0.645	5.00	1	07/06/2017 12:07	WG996080	
Vinyl chloride	0.424	J J	0.118	0.500	1	07/06/2017 12:07	WG996080	
Xylenes, Total	U		0.316	1.50	1	07/06/2017 12:07	WG996080	
(S) Toluene-d8	92.8			80.0-120		07/06/2017 12:07	WG996080	
(S) Dibromofluoromethane	80.7			76.0-123		07/06/2017 12:07	WG996080	
(S) 4-Bromofluorobenzene	94.9			80.0-120		07/06/2017 12:07	WG996080	

July 14, 2017

PES Environmental, Inc.- WA

Sample Delivery Group: L919954
Samples Received: 07/01/2017
Project Number: 1413.001.02.002
Description: American Linen Supply
Site: 700 DEXTER AVE N SEATTLE WA
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



C10-063017 L919954-01 GW

Collected by
Shannon McKernan

Collected date/time
06/30/17 08:10

Received date/time
07/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG997492	1	07/11/17 14:06	07/11/17 14:06	MCG
Wet Chemistry by Method 9056A	WG994932	1	07/01/17 21:04	07/01/17 21:04	SAM
Wet Chemistry by Method 9056A	WG994932	5	07/01/17 21:18	07/01/17 21:18	SAM
Wet Chemistry by Method 9060A	WG996343	1	07/07/17 03:07	07/07/17 03:07	CSU
Metals (ICPMS) by Method 6020A	WG995966	1	07/06/17 14:12	07/06/17 21:24	VSS
Volatile Organic Compounds (GC) by Method NWTPHGX	WG997249	5	07/13/17 17:35	07/13/17 17:35	JHH
Volatile Organic Compounds (GC) by Method RSK175	WG995803	1	07/06/17 11:02	07/06/17 11:02	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	10	07/13/17 13:48	07/13/17 13:48	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	500	07/14/17 04:50	07/14/17 04:50	JHH

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW104-063017 L919954-02 GW

Collected by
Shannon McKernan

Collected date/time
06/30/17 10:50

Received date/time
07/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG997492	1	07/11/17 14:28	07/11/17 14:28	MCG
Wet Chemistry by Method 9056A	WG994932	1	07/01/17 21:33	07/01/17 21:33	SAM
Wet Chemistry by Method 9060A	WG996343	1	07/07/17 03:19	07/07/17 03:19	CSU
Metals (ICPMS) by Method 6020A	WG995966	1	07/06/17 14:12	07/06/17 21:28	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG995803	1	07/06/17 11:05	07/06/17 11:05	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	1	07/13/17 14:05	07/13/17 14:05	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	1	07/14/17 05:07	07/14/17 05:07	JHH

MW106-063017 L919954-03 GW

Collected by
Shannon McKernan

Collected date/time
06/30/17 12:45

Received date/time
07/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG997492	1	07/11/17 14:36	07/11/17 14:36	MCG
Wet Chemistry by Method 9056A	WG994932	1	07/01/17 21:47	07/01/17 21:47	SAM
Wet Chemistry by Method 9060A	WG996343	1	07/07/17 03:30	07/07/17 03:30	CSU
Metals (ICPMS) by Method 6020A	WG995966	1	07/06/17 14:12	07/06/17 21:31	VSS
Volatile Organic Compounds (GC) by Method RSK175	WG995803	1	07/06/17 11:08	07/06/17 11:08	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	1	07/13/17 14:21	07/13/17 14:21	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	1	07/14/17 05:24	07/14/17 05:24	JHH

MW130-063017 L919954-04 GW

Collected by
Shannon McKernan

Collected date/time
06/30/17 15:10

Received date/time
07/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG997492	1	07/11/17 14:43	07/11/17 14:43	MCG
Wet Chemistry by Method 9056A	WG994932	1	07/01/17 22:45	07/01/17 22:45	SAM
Wet Chemistry by Method 9056A	WG994932	10	07/01/17 22:59	07/01/17 22:59	SAM
Wet Chemistry by Method 9060A	WG996343	1	07/07/17 03:41	07/07/17 03:41	CSU
Metals (ICPMS) by Method 6020A	WG995966	1	07/06/17 14:12	07/06/17 19:48	VSS
Volatile Organic Compounds (GC) by Method NWTPHGX	WG997249	5	07/13/17 17:57	07/13/17 17:57	JHH
Volatile Organic Compounds (GC) by Method RSK175	WG995803	1	07/06/17 11:17	07/06/17 11:17	AMC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	10	07/13/17 14:38	07/13/17 14:38	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	500	07/14/17 05:41	07/14/17 05:41	JHH

SAMPLE SUMMARY



G12-063017 L919954-05 GW

Collected by Shannon McKernan Collected date/time 06/30/17 15:30 Received date/time 07/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	1	07/13/17 14:54	07/13/17 14:54	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	1	07/14/17 05:58	07/14/17 05:58	JHH

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

TRIP BLANK L919954-06 GW

Collected by Shannon McKernan Collected date/time 06/30/17 00:00 Received date/time 07/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG997249	1	07/12/17 02:39	07/12/17 02:39	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG997929	1	07/13/17 12:58	07/13/17 12:58	BMB



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	335000		2710	20000	1	07/11/2017 14:06	WG997492

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	111000		260	5000	5	07/01/2017 21:18	WG994932
Nitrate	U		22.7	100	1	07/01/2017 21:04	WG994932
Sulfate	6160		77.4	5000	1	07/01/2017 21:04	WG994932

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	9680		102	1000	1	07/07/2017 03:07	WG996343

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	876		15.0	100	1	07/06/2017 21:24	WG995966
Manganese	527		0.250	5.00	1	07/06/2017 21:24	WG995966

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	15000		158	500	5	07/13/2017 17:35	WG997249
(S) a,a,a-Trifluorotoluene(FID) 99.7				77.0-122		07/13/2017 17:35	WG997249

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1120		0.287	0.678	1	07/06/2017 11:02	WG995803
Ethane	2.33		0.296	1.29	1	07/06/2017 11:02	WG995803
Ethene	69.1		0.422	1.27	1	07/06/2017 11:02	WG995803

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.5	250	10	07/13/2017 13:48	WG997929
Acrylonitrile	U		8.73	50.0	10	07/13/2017 13:48	WG997929
Benzene	U		0.896	5.00	10	07/13/2017 13:48	WG997929
Bromobenzene	U		1.33	5.00	10	07/13/2017 13:48	WG997929
Bromodichloromethane	U		0.800	5.00	10	07/13/2017 13:48	WG997929
Bromochloromethane	U		1.45	5.00	10	07/13/2017 13:48	WG997929
Bromoform	U		1.86	5.00	10	07/13/2017 13:48	WG997929
Bromomethane	U		1.57	25.0	10	07/13/2017 13:48	WG997929
n-Butylbenzene	U		1.43	5.00	10	07/13/2017 13:48	WG997929
sec-Butylbenzene	U		1.34	5.00	10	07/13/2017 13:48	WG997929
tert-Butylbenzene	U		1.83	5.00	10	07/13/2017 13:48	WG997929
Carbon disulfide	U		1.01	5.00	10	07/13/2017 13:48	WG997929
Carbon tetrachloride	U		1.59	5.00	10	07/13/2017 13:48	WG997929
Chlorobenzene	U		1.40	5.00	10	07/13/2017 13:48	WG997929
Chlorodibromomethane	U		1.28	5.00	10	07/13/2017 13:48	WG997929
Chloroethane	U		1.41	25.0	10	07/13/2017 13:48	WG997929

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 06/30/17 08:10

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloroform	U		0.860	5.00	10	07/13/2017 13:48	WG997929
Chloromethane	U		1.53	12.5	10	07/13/2017 13:48	WG997929
2-Chlorotoluene	U		1.11	5.00	10	07/13/2017 13:48	WG997929
4-Chlorotoluene	U		0.972	5.00	10	07/13/2017 13:48	WG997929
1,2-Dibromo-3-Chloropropane	U		3.25	25.0	10	07/13/2017 13:48	WG997929
1,2-Dibromoethane	U		1.93	5.00	10	07/13/2017 13:48	WG997929
Dibromomethane	U		1.17	5.00	10	07/13/2017 13:48	WG997929
1,2-Dichlorobenzene	U		1.01	5.00	10	07/13/2017 13:48	WG997929
1,3-Dichlorobenzene	U		1.30	5.00	10	07/13/2017 13:48	WG997929
1,4-Dichlorobenzene	U		1.21	5.00	10	07/13/2017 13:48	WG997929
Dichlorodifluoromethane	U		1.27	25.0	10	07/13/2017 13:48	WG997929
1,1-Dichloroethane	U		1.14	5.00	10	07/13/2017 13:48	WG997929
1,2-Dichloroethane	U		1.08	5.00	10	07/13/2017 13:48	WG997929
1,1-Dichloroethene	85.0		1.88	5.00	10	07/13/2017 13:48	WG997929
cis-1,2-Dichloroethene	21300		46.6	250	500	07/14/2017 04:50	WG997929
trans-1,2-Dichloroethene	57.3		1.52	5.00	10	07/13/2017 13:48	WG997929
1,2-Dichloropropane	U		1.90	5.00	10	07/13/2017 13:48	WG997929
1,1-Dichloropropene	U		1.28	5.00	10	07/13/2017 13:48	WG997929
1,3-Dichloropropane	U		1.47	10.0	10	07/13/2017 13:48	WG997929
cis-1,3-Dichloropropene	U		0.976	5.00	10	07/13/2017 13:48	WG997929
trans-1,3-Dichloropropene	U		2.22	5.00	10	07/13/2017 13:48	WG997929
trans-1,4-Dichloro-2-butene	U		2.57	50.0	10	07/13/2017 13:48	WG997929
2,2-Dichloropropane	U		0.929	5.00	10	07/13/2017 13:48	WG997929
Di-isopropyl ether	U		0.924	5.00	10	07/13/2017 13:48	WG997929
Ethylbenzene	U		1.58	5.00	10	07/13/2017 13:48	WG997929
Hexachloro-1,3-butadiene	U		1.57	10.0	10	07/13/2017 13:48	WG997929
2-Hexanone	U		7.57	50.0	10	07/13/2017 13:48	WG997929
n-Hexane	U		3.05	50.0	10	07/13/2017 13:48	WG997929
Iodomethane	U		3.77	100	10	07/13/2017 13:48	WG997929
Isopropylbenzene	U		1.26	5.00	10	07/13/2017 13:48	WG997929
p-Isopropyltoluene	U		1.38	5.00	10	07/13/2017 13:48	WG997929
2-Butanone (MEK)	U		12.8	50.0	10	07/13/2017 13:48	WG997929
Methylene Chloride	U		10.7	25.0	10	07/13/2017 13:48	WG997929
4-Methyl-2-pentanone (MIBK)	U		8.23	50.0	10	07/13/2017 13:48	WG997929
Methyl tert-butyl ether	U		1.02	5.00	10	07/13/2017 13:48	WG997929
Naphthalene	U		1.74	25.0	10	07/13/2017 13:48	WG997929
n-Propylbenzene	U		1.62	5.00	10	07/13/2017 13:48	WG997929
Styrene	U		1.17	5.00	10	07/13/2017 13:48	WG997929
1,1,1,2-Tetrachloroethane	U		1.20	5.00	10	07/13/2017 13:48	WG997929
1,1,2,2-Tetrachloroethane	U		1.30	5.00	10	07/13/2017 13:48	WG997929
1,1,2-Trichlorotrifluoroethane	U		1.64	5.00	10	07/13/2017 13:48	WG997929
Tetrachloroethene	11100		99.5	250	500	07/14/2017 04:50	WG997929
Toluene	U		4.12	5.00	10	07/13/2017 13:48	WG997929
1,2,3-Trichlorobenzene	U		1.64	5.00	10	07/13/2017 13:48	WG997929
1,2,4-Trichlorobenzene	U		3.55	5.00	10	07/13/2017 13:48	WG997929
1,1,1-Trichloroethane	U		0.940	5.00	10	07/13/2017 13:48	WG997929
1,1,2-Trichloroethane	U		1.86	5.00	10	07/13/2017 13:48	WG997929
Trichloroethene	5310		76.5	250	500	07/14/2017 04:50	WG997929
Trichlorofluoromethane	U		1.30	25.0	10	07/13/2017 13:48	WG997929
1,2,3-Trichloropropane	U		2.47	25.0	10	07/13/2017 13:48	WG997929
1,2,4-Trimethylbenzene	U		1.23	5.00	10	07/13/2017 13:48	WG997929
1,2,3-Trimethylbenzene	U		0.739	5.00	10	07/13/2017 13:48	WG997929
1,3,5-Trimethylbenzene	U		1.24	5.00	10	07/13/2017 13:48	WG997929
Vinyl acetate	U		6.45	50.0	10	07/13/2017 13:48	WG997929
Vinyl chloride	549		1.18	5.00	10	07/13/2017 13:48	WG997929
Xylenes, Total	U		3.16	15.0	10	07/13/2017 13:48	WG997929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	106			80.0-120		07/14/2017 04:50	WG997929
(S) Toluene-d8	104			80.0-120		07/13/2017 13:48	WG997929
(S) Dibromofluoromethane	92.9			76.0-123		07/14/2017 04:50	WG997929
(S) Dibromofluoromethane	99.2			76.0-123		07/13/2017 13:48	WG997929
(S) 4-Bromofluorobenzene	98.9			80.0-120		07/13/2017 13:48	WG997929
(S) 4-Bromofluorobenzene	94.9			80.0-120		07/14/2017 04:50	WG997929

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	218000		2710	20000	1	07/11/2017 14:28	WG997492

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	11700		51.9	1000	1	07/01/2017 21:33	WG994932
Nitrate	U		22.7	100	1	07/01/2017 21:33	WG994932
Sulfate	6050		77.4	5000	1	07/01/2017 21:33	WG994932

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1680		102	1000	1	07/07/2017 03:19	WG996343

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	1770		15.0	100	1	07/06/2017 21:28	WG995966
Manganese	360		0.250	5.00	1	07/06/2017 21:28	WG995966

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	40.6		0.287	0.678	1	07/06/2017 11:05	WG995803
Ethane	U		0.296	1.29	1	07/06/2017 11:05	WG995803
Ethene	U		0.422	1.27	1	07/06/2017 11:05	WG995803

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.45	J	1.05	25.0	1	07/13/2017 14:05	WG997929
Acrylonitrile	U		0.873	5.00	1	07/13/2017 14:05	WG997929
Benzene	U		0.0896	0.500	1	07/13/2017 14:05	WG997929
Bromobenzene	U		0.133	0.500	1	07/13/2017 14:05	WG997929
Bromodichloromethane	U		0.0800	0.500	1	07/13/2017 14:05	WG997929
Bromochloromethane	U		0.145	0.500	1	07/13/2017 14:05	WG997929
Bromoform	U		0.186	0.500	1	07/13/2017 14:05	WG997929
Bromomethane	U		0.157	2.50	1	07/13/2017 14:05	WG997929
n-Butylbenzene	U		0.143	0.500	1	07/13/2017 14:05	WG997929
sec-Butylbenzene	U		0.134	0.500	1	07/13/2017 14:05	WG997929
tert-Butylbenzene	U		0.183	0.500	1	07/13/2017 14:05	WG997929
Carbon disulfide	U		0.101	0.500	1	07/13/2017 14:05	WG997929
Carbon tetrachloride	U		0.159	0.500	1	07/13/2017 14:05	WG997929
Chlorobenzene	U		0.140	0.500	1	07/13/2017 14:05	WG997929
Chlorodibromomethane	U		0.128	0.500	1	07/13/2017 14:05	WG997929
Chloroethane	U		0.141	2.50	1	07/13/2017 14:05	WG997929
Chloroform	U		0.0860	0.500	1	07/13/2017 14:05	WG997929
Chloromethane	U		0.153	1.25	1	07/13/2017 14:05	WG997929
2-Chlorotoluene	U		0.111	0.500	1	07/13/2017 14:05	WG997929
4-Chlorotoluene	U		0.0972	0.500	1	07/13/2017 14:05	WG997929
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/13/2017 14:05	WG997929
1,2-Dibromoethane	U		0.193	0.500	1	07/13/2017 14:05	WG997929
Dibromomethane	U		0.117	0.500	1	07/13/2017 14:05	WG997929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/30/17 10:50

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/13/2017 14:05	WG997929
1,3-Dichlorobenzene	U		0.130	0.500	1	07/13/2017 14:05	WG997929
1,4-Dichlorobenzene	U		0.121	0.500	1	07/13/2017 14:05	WG997929
Dichlorodifluoromethane	U		0.127	2.50	1	07/13/2017 14:05	WG997929
1,1-Dichloroethane	U		0.114	0.500	1	07/13/2017 14:05	WG997929
1,2-Dichloroethane	U		0.108	0.500	1	07/13/2017 14:05	WG997929
1,1-Dichloroethene	0.387	J	0.188	0.500	1	07/13/2017 14:05	WG997929
cis-1,2-Dichloroethene	1.54		0.0933	0.500	1	07/14/2017 05:07	WG997929
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/13/2017 14:05	WG997929
1,2-Dichloropropane	U		0.190	0.500	1	07/13/2017 14:05	WG997929
1,1-Dichloropropene	U		0.128	0.500	1	07/13/2017 14:05	WG997929
1,3-Dichloropropane	U		0.147	1.00	1	07/13/2017 14:05	WG997929
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/13/2017 14:05	WG997929
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/13/2017 14:05	WG997929
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/13/2017 14:05	WG997929
2,2-Dichloropropane	U		0.0929	0.500	1	07/13/2017 14:05	WG997929
Di-isopropyl ether	U		0.0924	0.500	1	07/13/2017 14:05	WG997929
Ethylbenzene	U		0.158	0.500	1	07/13/2017 14:05	WG997929
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/13/2017 14:05	WG997929
2-Hexanone	U		0.757	5.00	1	07/13/2017 14:05	WG997929
n-Hexane	U		0.305	5.00	1	07/13/2017 14:05	WG997929
Iodomethane	U		0.377	10.0	1	07/13/2017 14:05	WG997929
Isopropylbenzene	U		0.126	0.500	1	07/13/2017 14:05	WG997929
p-Isopropyltoluene	U		0.138	0.500	1	07/13/2017 14:05	WG997929
2-Butanone (MEK)	U		1.28	5.00	1	07/13/2017 14:05	WG997929
Methylene Chloride	U		1.07	2.50	1	07/13/2017 14:05	WG997929
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/13/2017 14:05	WG997929
Methyl tert-butyl ether	U		0.102	0.500	1	07/13/2017 14:05	WG997929
Naphthalene	U		0.174	2.50	1	07/13/2017 14:05	WG997929
n-Propylbenzene	U		0.162	0.500	1	07/13/2017 14:05	WG997929
Styrene	U		0.117	0.500	1	07/13/2017 14:05	WG997929
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/13/2017 14:05	WG997929
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/13/2017 14:05	WG997929
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/13/2017 14:05	WG997929
Tetrachloroethene	5.83		0.199	0.500	1	07/14/2017 05:07	WG997929
Toluene	0.903		0.412	0.500	1	07/13/2017 14:05	WG997929
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/13/2017 14:05	WG997929
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/13/2017 14:05	WG997929
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/13/2017 14:05	WG997929
1,1,2-Trichloroethane	U		0.186	0.500	1	07/13/2017 14:05	WG997929
Trichloroethene	5.21		0.153	0.500	1	07/14/2017 05:07	WG997929
Trichlorofluoromethane	U		0.130	2.50	1	07/13/2017 14:05	WG997929
1,2,3-Trichloropropane	U		0.247	2.50	1	07/13/2017 14:05	WG997929
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/13/2017 14:05	WG997929
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/13/2017 14:05	WG997929
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/13/2017 14:05	WG997929
Vinyl acetate	U		0.645	5.00	1	07/13/2017 14:05	WG997929
Vinyl chloride	U		0.118	0.500	1	07/13/2017 14:05	WG997929
Xylenes, Total	0.396	J	0.316	1.50	1	07/13/2017 14:05	WG997929
(S) Toluene-d8	108			80.0-120		07/14/2017 05:07	WG997929
(S) Toluene-d8	104			80.0-120		07/13/2017 14:05	WG997929
(S) Dibromofluoromethane	90.8			76.0-123		07/14/2017 05:07	WG997929
(S) Dibromofluoromethane	100			76.0-123		07/13/2017 14:05	WG997929
(S) 4-Bromofluorobenzene	99.9			80.0-120		07/13/2017 14:05	WG997929
(S) 4-Bromofluorobenzene	95.6			80.0-120		07/14/2017 05:07	WG997929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	305000		2710	20000	1	07/11/2017 14:36	WG997492

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	27300		51.9	1000	1	07/01/2017 21:47	WG994932
Nitrate	U		22.7	100	1	07/01/2017 21:47	WG994932
Sulfate	18000		77.4	5000	1	07/01/2017 21:47	WG994932

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10000		102	1000	1	07/07/2017 03:30	WG996343

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	4960		15.0	100	1	07/06/2017 21:31	WG995966
Manganese	779		0.250	5.00	1	07/06/2017 21:31	WG995966

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	38.7		0.287	0.678	1	07/06/2017 11:08	WG995803
Ethane	U		0.296	1.29	1	07/06/2017 11:08	WG995803
Ethene	U		0.422	1.27	1	07/06/2017 11:08	WG995803

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.65	J	1.05	25.0	1	07/13/2017 14:21	WG997929
Acrylonitrile	U		0.873	5.00	1	07/13/2017 14:21	WG997929
Benzene	U		0.0896	0.500	1	07/13/2017 14:21	WG997929
Bromobenzene	U		0.133	0.500	1	07/13/2017 14:21	WG997929
Bromodichloromethane	U		0.0800	0.500	1	07/13/2017 14:21	WG997929
Bromochloromethane	U		0.145	0.500	1	07/13/2017 14:21	WG997929
Bromoform	U		0.186	0.500	1	07/13/2017 14:21	WG997929
Bromomethane	U		0.157	2.50	1	07/13/2017 14:21	WG997929
n-Butylbenzene	U		0.143	0.500	1	07/13/2017 14:21	WG997929
sec-Butylbenzene	U		0.134	0.500	1	07/13/2017 14:21	WG997929
tert-Butylbenzene	U		0.183	0.500	1	07/13/2017 14:21	WG997929
Carbon disulfide	U		0.101	0.500	1	07/13/2017 14:21	WG997929
Carbon tetrachloride	U		0.159	0.500	1	07/13/2017 14:21	WG997929
Chlorobenzene	U		0.140	0.500	1	07/13/2017 14:21	WG997929
Chlorodibromomethane	U		0.128	0.500	1	07/13/2017 14:21	WG997929
Chloroethane	U		0.141	2.50	1	07/13/2017 14:21	WG997929
Chloroform	U		0.0860	0.500	1	07/13/2017 14:21	WG997929
Chloromethane	U		0.153	1.25	1	07/13/2017 14:21	WG997929
2-Chlorotoluene	U		0.111	0.500	1	07/13/2017 14:21	WG997929
4-Chlorotoluene	U		0.0972	0.500	1	07/13/2017 14:21	WG997929
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/13/2017 14:21	WG997929
1,2-Dibromoethane	U		0.193	0.500	1	07/13/2017 14:21	WG997929
Dibromomethane	U		0.117	0.500	1	07/13/2017 14:21	WG997929



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/13/2017 14:21	WG997929
1,3-Dichlorobenzene	U		0.130	0.500	1	07/13/2017 14:21	WG997929
1,4-Dichlorobenzene	U		0.121	0.500	1	07/13/2017 14:21	WG997929
Dichlorodifluoromethane	U		0.127	2.50	1	07/13/2017 14:21	WG997929
1,1-Dichloroethane	U		0.114	0.500	1	07/13/2017 14:21	WG997929
1,2-Dichloroethane	U		0.108	0.500	1	07/13/2017 14:21	WG997929
1,1-Dichloroethene	U		0.188	0.500	1	07/13/2017 14:21	WG997929
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/14/2017 05:24	WG997929
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/13/2017 14:21	WG997929
1,2-Dichloropropane	U		0.190	0.500	1	07/13/2017 14:21	WG997929
1,1-Dichloropropene	U		0.128	0.500	1	07/13/2017 14:21	WG997929
1,3-Dichloropropane	U		0.147	1.00	1	07/13/2017 14:21	WG997929
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/13/2017 14:21	WG997929
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/13/2017 14:21	WG997929
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/13/2017 14:21	WG997929
2,2-Dichloropropane	U		0.0929	0.500	1	07/13/2017 14:21	WG997929
Di-isopropyl ether	U		0.0924	0.500	1	07/13/2017 14:21	WG997929
Ethylbenzene	U		0.158	0.500	1	07/13/2017 14:21	WG997929
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/13/2017 14:21	WG997929
2-Hexanone	U		0.757	5.00	1	07/13/2017 14:21	WG997929
n-Hexane	U		0.305	5.00	1	07/13/2017 14:21	WG997929
Iodomethane	U		0.377	10.0	1	07/13/2017 14:21	WG997929
Isopropylbenzene	U		0.126	0.500	1	07/13/2017 14:21	WG997929
p-Isopropyltoluene	U		0.138	0.500	1	07/13/2017 14:21	WG997929
2-Butanone (MEK)	U		1.28	5.00	1	07/13/2017 14:21	WG997929
Methylene Chloride	U		1.07	2.50	1	07/13/2017 14:21	WG997929
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/13/2017 14:21	WG997929
Methyl tert-butyl ether	U		0.102	0.500	1	07/13/2017 14:21	WG997929
Naphthalene	U		0.174	2.50	1	07/13/2017 14:21	WG997929
n-Propylbenzene	U		0.162	0.500	1	07/13/2017 14:21	WG997929
Styrene	U		0.117	0.500	1	07/13/2017 14:21	WG997929
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/13/2017 14:21	WG997929
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/13/2017 14:21	WG997929
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/13/2017 14:21	WG997929
Tetrachloroethene	U		0.199	0.500	1	07/13/2017 14:21	WG997929
Toluene	0.419	U	0.412	0.500	1	07/13/2017 14:21	WG997929
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/13/2017 14:21	WG997929
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/13/2017 14:21	WG997929
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/13/2017 14:21	WG997929
1,1,2-Trichloroethane	U		0.186	0.500	1	07/13/2017 14:21	WG997929
Trichloroethene	U		0.153	0.500	1	07/13/2017 14:21	WG997929
Trichlorofluoromethane	U		0.130	2.50	1	07/13/2017 14:21	WG997929
1,2,3-Trichloropropane	U		0.247	2.50	1	07/13/2017 14:21	WG997929
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/13/2017 14:21	WG997929
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/13/2017 14:21	WG997929
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/13/2017 14:21	WG997929
Vinyl acetate	U		0.645	5.00	1	07/13/2017 14:21	WG997929
Vinyl chloride	U		0.118	0.500	1	07/13/2017 14:21	WG997929
Xylenes, Total	U		0.316	1.50	1	07/13/2017 14:21	WG997929
(S) Toluene-d8	105			80.0-120		07/13/2017 14:21	WG997929
(S) Toluene-d8	107			80.0-120		07/14/2017 05:24	WG997929
(S) Dibromofluoromethane	99.6			76.0-123		07/13/2017 14:21	WG997929
(S) Dibromofluoromethane	94.3			76.0-123		07/14/2017 05:24	WG997929
(S) 4-Bromofluorobenzene	99.2			80.0-120		07/13/2017 14:21	WG997929
(S) 4-Bromofluorobenzene	96.4			80.0-120		07/14/2017 05:24	WG997929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	339000		2710	20000	1	07/11/2017 14:43	WG997492

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	115000		519	10000	10	07/01/2017 22:59	WG994932
Nitrate	U		22.7	100	1	07/01/2017 22:45	WG994932
Sulfate	6230		77.4	5000	1	07/01/2017 22:45	WG994932

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1840		102	1000	1	07/07/2017 03:41	WG996343

6 Qc

7 Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	907		15.0	100	1	07/06/2017 19:48	WG995966
Manganese	532	V	0.250	5.00	1	07/06/2017 19:48	WG995966

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	10300		158	500	5	07/13/2017 17:57	WG997249
(S) a,a,a-Trifluorotoluene(FID) 96.1				77.0-122		07/13/2017 17:57	WG997249

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1040		0.287	0.678	1	07/06/2017 11:17	WG995803
Ethane	2.47		0.296	1.29	1	07/06/2017 11:17	WG995803
Ethene	64.5		0.422	1.27	1	07/06/2017 11:17	WG995803

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.5	250	10	07/13/2017 14:38	WG997929
Acrylonitrile	U		8.73	50.0	10	07/13/2017 14:38	WG997929
Benzene	U		0.896	5.00	10	07/13/2017 14:38	WG997929
Bromobenzene	U		1.33	5.00	10	07/13/2017 14:38	WG997929
Bromodichloromethane	U		0.800	5.00	10	07/13/2017 14:38	WG997929
Bromochloromethane	U		1.45	5.00	10	07/13/2017 14:38	WG997929
Bromoform	U		1.86	5.00	10	07/13/2017 14:38	WG997929
Bromomethane	U		1.57	25.0	10	07/13/2017 14:38	WG997929
n-Butylbenzene	U		1.43	5.00	10	07/13/2017 14:38	WG997929
sec-Butylbenzene	U		1.34	5.00	10	07/13/2017 14:38	WG997929
tert-Butylbenzene	U		1.83	5.00	10	07/13/2017 14:38	WG997929
Carbon disulfide	U		1.01	5.00	10	07/13/2017 14:38	WG997929
Carbon tetrachloride	U		1.59	5.00	10	07/13/2017 14:38	WG997929
Chlorobenzene	U		1.40	5.00	10	07/13/2017 14:38	WG997929
Chlorodibromomethane	U		1.28	5.00	10	07/13/2017 14:38	WG997929
Chloroethane	U		1.41	25.0	10	07/13/2017 14:38	WG997929



Collected date/time: 06/30/17 15:10

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloroform	U		0.860	5.00	10	07/13/2017 14:38	WG997929
Chloromethane	U		1.53	12.5	10	07/13/2017 14:38	WG997929
2-Chlorotoluene	U		1.11	5.00	10	07/13/2017 14:38	WG997929
4-Chlorotoluene	U		0.972	5.00	10	07/13/2017 14:38	WG997929
1,2-Dibromo-3-Chloropropane	U		3.25	25.0	10	07/13/2017 14:38	WG997929
1,2-Dibromoethane	U		1.93	5.00	10	07/13/2017 14:38	WG997929
Dibromomethane	U		1.17	5.00	10	07/13/2017 14:38	WG997929
1,2-Dichlorobenzene	U		1.01	5.00	10	07/13/2017 14:38	WG997929
1,3-Dichlorobenzene	U		1.30	5.00	10	07/13/2017 14:38	WG997929
1,4-Dichlorobenzene	U		1.21	5.00	10	07/13/2017 14:38	WG997929
Dichlorodifluoromethane	U		1.27	25.0	10	07/13/2017 14:38	WG997929
1,1-Dichloroethane	U		1.14	5.00	10	07/13/2017 14:38	WG997929
1,2-Dichloroethane	U		1.08	5.00	10	07/13/2017 14:38	WG997929
1,1-Dichloroethene	94.3		1.88	5.00	10	07/13/2017 14:38	WG997929
cis-1,2-Dichloroethene	20100		46.6	250	500	07/14/2017 05:41	WG997929
trans-1,2-Dichloroethene	55.6		1.52	5.00	10	07/13/2017 14:38	WG997929
1,2-Dichloropropane	U		1.90	5.00	10	07/13/2017 14:38	WG997929
1,1-Dichloropropene	U		1.28	5.00	10	07/13/2017 14:38	WG997929
1,3-Dichloropropane	U		1.47	10.0	10	07/13/2017 14:38	WG997929
cis-1,3-Dichloropropene	U		0.976	5.00	10	07/13/2017 14:38	WG997929
trans-1,3-Dichloropropene	U		2.22	5.00	10	07/13/2017 14:38	WG997929
trans-1,4-Dichloro-2-butene	U		2.57	50.0	10	07/13/2017 14:38	WG997929
2,2-Dichloropropane	U		0.929	5.00	10	07/13/2017 14:38	WG997929
Di-isopropyl ether	U		0.924	5.00	10	07/13/2017 14:38	WG997929
Ethylbenzene	U		1.58	5.00	10	07/13/2017 14:38	WG997929
Hexachloro-1,3-butadiene	U		1.57	10.0	10	07/13/2017 14:38	WG997929
2-Hexanone	U		7.57	50.0	10	07/13/2017 14:38	WG997929
n-Hexane	U		3.05	50.0	10	07/13/2017 14:38	WG997929
Iodomethane	U		3.77	100	10	07/13/2017 14:38	WG997929
Isopropylbenzene	U		1.26	5.00	10	07/13/2017 14:38	WG997929
p-Isopropyltoluene	U		1.38	5.00	10	07/13/2017 14:38	WG997929
2-Butanone (MEK)	U		12.8	50.0	10	07/13/2017 14:38	WG997929
Methylene Chloride	U		10.7	25.0	10	07/13/2017 14:38	WG997929
4-Methyl-2-pentanone (MIBK)	U		8.23	50.0	10	07/13/2017 14:38	WG997929
Methyl tert-butyl ether	U		1.02	5.00	10	07/13/2017 14:38	WG997929
Naphthalene	U		1.74	25.0	10	07/13/2017 14:38	WG997929
n-Propylbenzene	U		1.62	5.00	10	07/13/2017 14:38	WG997929
Styrene	U		1.17	5.00	10	07/13/2017 14:38	WG997929
1,1,1,2-Tetrachloroethane	U		1.20	5.00	10	07/13/2017 14:38	WG997929
1,1,2,2-Tetrachloroethane	U		1.30	5.00	10	07/13/2017 14:38	WG997929
1,1,2-Trichlorotrifluoroethane	U		1.64	5.00	10	07/13/2017 14:38	WG997929
Tetrachloroethene	6760		99.5	250	500	07/14/2017 05:41	WG997929
Toluene	U		4.12	5.00	10	07/13/2017 14:38	WG997929
1,2,3-Trichlorobenzene	U		1.64	5.00	10	07/13/2017 14:38	WG997929
1,2,4-Trichlorobenzene	U		3.55	5.00	10	07/13/2017 14:38	WG997929
1,1,1-Trichloroethane	U		0.940	5.00	10	07/13/2017 14:38	WG997929
1,1,2-Trichloroethane	U		1.86	5.00	10	07/13/2017 14:38	WG997929
Trichloroethene	4020		76.5	250	500	07/14/2017 05:41	WG997929
Trichlorofluoromethane	U		1.30	25.0	10	07/13/2017 14:38	WG997929
1,2,3-Trichloropropane	U		2.47	25.0	10	07/13/2017 14:38	WG997929
1,2,4-Trimethylbenzene	U		1.23	5.00	10	07/13/2017 14:38	WG997929
1,2,3-Trimethylbenzene	U		0.739	5.00	10	07/13/2017 14:38	WG997929
1,3,5-Trimethylbenzene	U		1.24	5.00	10	07/13/2017 14:38	WG997929
Vinyl acetate	U		6.45	50.0	10	07/13/2017 14:38	WG997929
Vinyl chloride	597		1.18	5.00	10	07/13/2017 14:38	WG997929
Xylenes, Total	U		3.16	15.0	10	07/13/2017 14:38	WG997929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	108			80.0-120		07/14/2017 05:41	WG997929
(S) Toluene-d8	104			80.0-120		07/13/2017 14:38	WG997929
(S) Dibromofluoromethane	92.3			76.0-123		07/14/2017 05:41	WG997929
(S) Dibromofluoromethane	101			76.0-123		07/13/2017 14:38	WG997929
(S) 4-Bromofluorobenzene	97.2			80.0-120		07/13/2017 14:38	WG997929
(S) 4-Bromofluorobenzene	96.2			80.0-120		07/14/2017 05:41	WG997929

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.65	J	1.05	25.0	1	07/13/2017 14:54	WG997929
Acrylonitrile	U		0.873	5.00	1	07/13/2017 14:54	WG997929
Benzene	0.282	J	0.0896	0.500	1	07/13/2017 14:54	WG997929
Bromobenzene	U		0.133	0.500	1	07/13/2017 14:54	WG997929
Bromodichloromethane	U		0.0800	0.500	1	07/13/2017 14:54	WG997929
Bromochloromethane	U		0.145	0.500	1	07/13/2017 14:54	WG997929
Bromoform	U		0.186	0.500	1	07/13/2017 14:54	WG997929
Bromomethane	U		0.157	2.50	1	07/13/2017 14:54	WG997929
n-Butylbenzene	U		0.143	0.500	1	07/13/2017 14:54	WG997929
sec-Butylbenzene	U		0.134	0.500	1	07/13/2017 14:54	WG997929
tert-Butylbenzene	U		0.183	0.500	1	07/13/2017 14:54	WG997929
Carbon disulfide	U		0.101	0.500	1	07/13/2017 14:54	WG997929
Carbon tetrachloride	U		0.159	0.500	1	07/13/2017 14:54	WG997929
Chlorobenzene	U		0.140	0.500	1	07/13/2017 14:54	WG997929
Chlorodibromomethane	U		0.128	0.500	1	07/13/2017 14:54	WG997929
Chloroethane	0.539	J	0.141	2.50	1	07/13/2017 14:54	WG997929
Chloroform	U		0.0860	0.500	1	07/13/2017 14:54	WG997929
Chloromethane	U		0.153	1.25	1	07/13/2017 14:54	WG997929
2-Chlorotoluene	U		0.111	0.500	1	07/13/2017 14:54	WG997929
4-Chlorotoluene	U		0.0972	0.500	1	07/13/2017 14:54	WG997929
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/13/2017 14:54	WG997929
1,2-Dibromoethane	U		0.193	0.500	1	07/13/2017 14:54	WG997929
Dibromomethane	U		0.117	0.500	1	07/13/2017 14:54	WG997929
1,2-Dichlorobenzene	U		0.101	0.500	1	07/13/2017 14:54	WG997929
1,3-Dichlorobenzene	U		0.130	0.500	1	07/13/2017 14:54	WG997929
1,4-Dichlorobenzene	U		0.121	0.500	1	07/13/2017 14:54	WG997929
Dichlorodifluoromethane	U		0.127	2.50	1	07/13/2017 14:54	WG997929
1,1-Dichloroethane	U		0.114	0.500	1	07/13/2017 14:54	WG997929
1,2-Dichloroethane	U		0.108	0.500	1	07/13/2017 14:54	WG997929
1,1-Dichloroethene	2.31		0.188	0.500	1	07/13/2017 14:54	WG997929
cis-1,2-Dichloroethene	115		0.0933	0.500	1	07/14/2017 05:58	WG997929
trans-1,2-Dichloroethene	2.94		0.152	0.500	1	07/13/2017 14:54	WG997929
1,2-Dichloropropane	U		0.190	0.500	1	07/13/2017 14:54	WG997929
1,1-Dichloropropene	U		0.128	0.500	1	07/13/2017 14:54	WG997929
1,3-Dichloropropane	U		0.147	1.00	1	07/13/2017 14:54	WG997929
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/13/2017 14:54	WG997929
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/13/2017 14:54	WG997929
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/13/2017 14:54	WG997929
2,2-Dichloropropane	U		0.0929	0.500	1	07/13/2017 14:54	WG997929
Di-isopropyl ether	U		0.0924	0.500	1	07/13/2017 14:54	WG997929
Ethylbenzene	U		0.158	0.500	1	07/13/2017 14:54	WG997929
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/13/2017 14:54	WG997929
2-Hexanone	U		0.757	5.00	1	07/13/2017 14:54	WG997929
n-Hexane	U		0.305	5.00	1	07/13/2017 14:54	WG997929
Iodomethane	U		0.377	10.0	1	07/13/2017 14:54	WG997929
Isopropylbenzene	U		0.126	0.500	1	07/13/2017 14:54	WG997929
p-Isopropyltoluene	U		0.138	0.500	1	07/13/2017 14:54	WG997929
2-Butanone (MEK)	U		1.28	5.00	1	07/13/2017 14:54	WG997929
Methylene Chloride	U		1.07	2.50	1	07/13/2017 14:54	WG997929
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/13/2017 14:54	WG997929
Methyl tert-butyl ether	U		0.102	0.500	1	07/13/2017 14:54	WG997929
Naphthalene	U		0.174	2.50	1	07/13/2017 14:54	WG997929
n-Propylbenzene	U		0.162	0.500	1	07/13/2017 14:54	WG997929
Styrene	U		0.117	0.500	1	07/13/2017 14:54	WG997929
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/13/2017 14:54	WG997929
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/13/2017 14:54	WG997929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/30/17 15:30

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/13/2017 14:54	WG997929
Tetrachloroethene	U		0.199	0.500	1	07/14/2017 05:58	WG997929
Toluene	U		0.412	0.500	1	07/13/2017 14:54	WG997929
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/13/2017 14:54	WG997929
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/13/2017 14:54	WG997929
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/13/2017 14:54	WG997929
1,1,2-Trichloroethane	U		0.186	0.500	1	07/13/2017 14:54	WG997929
Trichloroethene	0.323	J	0.153	0.500	1	07/14/2017 05:58	WG997929
Trichlorofluoromethane	U		0.130	2.50	1	07/13/2017 14:54	WG997929
1,2,3-Trichloropropane	U		0.247	2.50	1	07/13/2017 14:54	WG997929
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/13/2017 14:54	WG997929
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/13/2017 14:54	WG997929
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/13/2017 14:54	WG997929
Vinyl acetate	U		0.645	5.00	1	07/13/2017 14:54	WG997929
Vinyl chloride	31.5		0.118	0.500	1	07/13/2017 14:54	WG997929
Xylenes, Total	U		0.316	1.50	1	07/13/2017 14:54	WG997929
(S) Toluene-d8	105			80.0-120		07/13/2017 14:54	WG997929
(S) Toluene-d8	106			80.0-120		07/14/2017 05:58	WG997929
(S) Dibromofluoromethane	92.5			76.0-123		07/14/2017 05:58	WG997929
(S) Dibromofluoromethane	101			76.0-123		07/13/2017 14:54	WG997929
(S) 4-Bromofluorobenzene	97.7			80.0-120		07/14/2017 05:58	WG997929
(S) 4-Bromofluorobenzene	99.3			80.0-120		07/13/2017 14:54	WG997929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/30/17 00:00

L919954

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	07/12/2017 02:39	WG997249
(S) a,a,a-Trifluorotoluene(FID)	93.1			77.0-122		07/12/2017 02:39	WG997249

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/13/2017 12:58	WG997929
Acrylonitrile	U		0.873	5.00	1	07/13/2017 12:58	WG997929
Benzene	U		0.0896	0.500	1	07/13/2017 12:58	WG997929
Bromobenzene	U		0.133	0.500	1	07/13/2017 12:58	WG997929
Bromodichloromethane	U		0.0800	0.500	1	07/13/2017 12:58	WG997929
Bromochloromethane	U		0.145	0.500	1	07/13/2017 12:58	WG997929
Bromoform	U		0.186	0.500	1	07/13/2017 12:58	WG997929
Bromomethane	U		0.157	2.50	1	07/13/2017 12:58	WG997929
n-Butylbenzene	U		0.143	0.500	1	07/13/2017 12:58	WG997929
sec-Butylbenzene	U		0.134	0.500	1	07/13/2017 12:58	WG997929
tert-Butylbenzene	U		0.183	0.500	1	07/13/2017 12:58	WG997929
Carbon disulfide	U		0.101	0.500	1	07/13/2017 12:58	WG997929
Carbon tetrachloride	U		0.159	0.500	1	07/13/2017 12:58	WG997929
Chlorobenzene	U		0.140	0.500	1	07/13/2017 12:58	WG997929
Chlorodibromomethane	U		0.128	0.500	1	07/13/2017 12:58	WG997929
Chloroethane	U		0.141	2.50	1	07/13/2017 12:58	WG997929
Chloroform	U		0.0860	0.500	1	07/13/2017 12:58	WG997929
Chloromethane	U		0.153	1.25	1	07/13/2017 12:58	WG997929
2-Chlorotoluene	U		0.111	0.500	1	07/13/2017 12:58	WG997929
4-Chlorotoluene	U		0.0972	0.500	1	07/13/2017 12:58	WG997929
1,2-Dibromo-3-Chloropropane	U		1.325	2.50	1	07/13/2017 12:58	WG997929
1,2-Dibromoethane	U		0.193	0.500	1	07/13/2017 12:58	WG997929
Dibromomethane	U		0.117	0.500	1	07/13/2017 12:58	WG997929
1,2-Dichlorobenzene	U		0.101	0.500	1	07/13/2017 12:58	WG997929
1,3-Dichlorobenzene	U		0.130	0.500	1	07/13/2017 12:58	WG997929
1,4-Dichlorobenzene	U		0.121	0.500	1	07/13/2017 12:58	WG997929
Dichlorodifluoromethane	U		0.127	2.50	1	07/13/2017 12:58	WG997929
1,1-Dichloroethane	U		0.114	0.500	1	07/13/2017 12:58	WG997929
1,2-Dichloroethane	U		0.108	0.500	1	07/13/2017 12:58	WG997929
1,1-Dichloroethene	U		0.188	0.500	1	07/13/2017 12:58	WG997929
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/13/2017 12:58	WG997929
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/13/2017 12:58	WG997929
1,2-Dichloropropane	U		0.190	0.500	1	07/13/2017 12:58	WG997929
1,1-Dichloropropene	U		0.128	0.500	1	07/13/2017 12:58	WG997929
1,3-Dichloropropane	U		0.147	1.00	1	07/13/2017 12:58	WG997929
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/13/2017 12:58	WG997929
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/13/2017 12:58	WG997929
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/13/2017 12:58	WG997929
2,2-Dichloropropane	U		0.0929	0.500	1	07/13/2017 12:58	WG997929
Di-isopropyl ether	U		0.0924	0.500	1	07/13/2017 12:58	WG997929
Ethylbenzene	U		0.158	0.500	1	07/13/2017 12:58	WG997929
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/13/2017 12:58	WG997929
2-Hexanone	U		0.757	5.00	1	07/13/2017 12:58	WG997929
n-Hexane	U		0.305	5.00	1	07/13/2017 12:58	WG997929
Iodomethane	U		0.377	10.0	1	07/13/2017 12:58	WG997929
Isopropylbenzene	U		0.126	0.500	1	07/13/2017 12:58	WG997929
p-Isopropyltoluene	U		0.138	0.500	1	07/13/2017 12:58	WG997929
2-Butanone (MEK)	U		1.28	5.00	1	07/13/2017 12:58	WG997929
Methylene Chloride	U		1.07	2.50	1	07/13/2017 12:58	WG997929



Collected date/time: 06/30/17 00:00

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/13/2017 12:58	WG997929
Methyl tert-butyl ether	U		0.102	0.500	1	07/13/2017 12:58	WG997929
Naphthalene	U		0.174	2.50	1	07/13/2017 12:58	WG997929
n-Propylbenzene	U		0.162	0.500	1	07/13/2017 12:58	WG997929
Styrene	U		0.117	0.500	1	07/13/2017 12:58	WG997929
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/13/2017 12:58	WG997929
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/13/2017 12:58	WG997929
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/13/2017 12:58	WG997929
Tetrachloroethene	U		0.199	0.500	1	07/13/2017 12:58	WG997929
Toluene	U		0.412	0.500	1	07/13/2017 12:58	WG997929
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/13/2017 12:58	WG997929
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/13/2017 12:58	WG997929
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/13/2017 12:58	WG997929
1,1,2-Trichloroethane	U		0.186	0.500	1	07/13/2017 12:58	WG997929
Trichloroethene	U		0.153	0.500	1	07/13/2017 12:58	WG997929
Trichlorofluoromethane	U		0.130	2.50	1	07/13/2017 12:58	WG997929
1,2,3-Trichloropropane	U		0.247	2.50	1	07/13/2017 12:58	WG997929
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/13/2017 12:58	WG997929
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/13/2017 12:58	WG997929
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/13/2017 12:58	WG997929
Vinyl acetate	U		0.645	5.00	1	07/13/2017 12:58	WG997929
Vinyl chloride	U		0.118	0.500	1	07/13/2017 12:58	WG997929
Xylenes, Total	U		0.316	1.50	1	07/13/2017 12:58	WG997929
(S) Toluene-d8	106			80.0-120		07/13/2017 12:58	WG997929
(S) Dibromofluoromethane	95.0			76.0-123		07/13/2017 12:58	WG997929
(S) 4-Bromofluorobenzene	100			80.0-120		07/13/2017 12:58	WG997929

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3232486-1 07/11/17 13:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	3390	J	2710	20000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L920265-02 Original Sample (OS) • Duplicate (DUP)

(OS) L920265-02 07/11/17 16:12 • (DUP) R3232486-5 07/11/17 16:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	10700	14400	1	30.0	J P1	20

L919954-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919954-01 07/11/17 14:06 • (DUP) R3232486-2 07/11/17 14:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	335000	342000	1	2.00		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3232486-3 07/11/17 14:18 • (LCSD) R3232486-4 07/11/17 15:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	100000	113000	114000	113	114	85.0-115			1.00	20



Method Blank (MB)

(MB) R3231149-1 07/01/17 06:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	207	J	51.9	1000
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L919909-03 Original Sample (OS) • Duplicate (DUP)

(OS) L919909-03 07/01/17 16:16 • (DUP) R3231149-5 07/01/17 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	ug/l	ug/l		%		%
Nitrate	U	0.000	1	0		15
Sulfate	1700	1870	1	10	J	15

L919912-02 Original Sample (OS) • Duplicate (DUP)

(OS) L919912-02 07/01/17 18:11 • (DUP) R3231149-7 07/01/17 19:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	ug/l	ug/l		%		%
Chloride	9410	9530	1	1		15
Nitrate	1540	1580	1	2		15
Sulfate	39900	40200	1	1		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231149-2 07/01/17 06:47 • (LCSD) R3231149-3 07/01/17 07:01

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloride	ug/l	ug/l	ug/l	%	%	%			%	%
Chloride	40000	38800	39100	97	98	80-120			1	15
Nitrate	8000	8050	8060	101	101	80-120			0	15
Sulfate	40000	40500	40500	101	101	80-120			0	15

L919909-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L919909-04 07/01/17 15:18 • (MS) R3231149-4 07/01/17 16:01

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	ug/l	ug/l	ug/l	%		%	
Nitrate	5000	U	1990	40	1	80-120	J6



L919912-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919912-01 07/01/17 17:42 • (MS) R3231149-9 07/01/17 20:21 • (MSD) R3231149-10 07/01/17 20:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits
Chloride	50000	19100	70300	70700	102	103	1	80-120			0	15
Nitrate	5000	ND	4980	4820	100	96	1	80-120			3	15

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3231655-1 07/06/17 23:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	U		102	1000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L919856-01 Original Sample (OS) • Duplicate (DUP)

(OS) L919856-01 07/07/17 01:09 • (DUP) R3231655-4 07/07/17 01:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1260	1120	1	12		20

L920271-04 Original Sample (OS) • Duplicate (DUP)

(OS) L920271-04 07/07/17 06:00 • (DUP) R3231655-7 07/07/17 06:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	5530	5600	1	1		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231655-5 07/07/17 01:34 • (LCSD) R3231655-6 07/07/17 04:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	75000	75100	74200	100	99	85-115			1	20

L919576-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919576-03 07/07/17 00:23 • (MS) R3231655-2 07/07/17 00:37 • (MSD) R3231655-3 07/07/17 00:57

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	1770	50500	50400	97	97	1	80-120			0	20



Method Blank (MB)

(MB) R3231472-1 07/06/17 19:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		15.0	100
Manganese	U		0.250	5.00

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231472-2 07/06/17 19:41 • (LCSD) R3231472-3 07/06/17 19:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	4760	4700	95	94	80-120			1	20
Manganese	50.0	46.7	46.1	93	92	80-120			1	20

5 Sr

6 Qc

L919954-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L919954-04 07/06/17 19:48 • (MS) R3231472-5 07/06/17 19:55 • (MSD) R3231472-6 07/06/17 19:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	5000	907	5390	5420	90	90	1	75-125			1	20
Manganese	50.0	532	568	564	72	64	1	75-125	<u>V</u>	<u>V</u>	1	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3232652-3 07/11/17 20:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	93.2			77.0-122

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3232652-1 07/11/17 19:34 • (LCSD) R3232652-2 07/11/17 19:56

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	5390	5550	98.1	101	72.0-134			2.78	20
(S) a,a,a-Trifluorotoluene(FID)				106	107	77.0-122				

L920660-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L920660-01 07/12/17 09:41 • (MS) R3232652-4 07/12/17 10:03 • (MSD) R3232652-5 07/12/17 10:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Gasoline Range Organics-NWTPH	5500	ND	3890	3650	70.6	66.3	1	23.0-159			6.39	20
(S) a,a,a-Trifluorotoluene(FID)					99.2	99.1		77.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3231296-1 07/06/17 10:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L919912-02 Original Sample (OS) • Duplicate (DUP)

(OS) L919912-02 07/06/17 10:37 • (DUP) R3231296-2 07/06/17 11:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	0.000	1	0.000		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3231296-3 07/06/17 11:29 • (LCSD) R3231296-4 07/06/17 11:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	68.6	76.4	101	113	70.0-130			10.7	20
Ethane	129	124	127	96.1	98.3	70.0-130			2.26	20
Ethene	127	119	120	93.5	94.8	70.0-130			1.39	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3233160-3 07/13/17 12:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3233160-3 07/13/17 12:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
Trichloroethene	U		0.153	0.500
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	98.4			76.0-123
(S) 4-Bromofluorobenzene	100			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233160-1 07/13/17 11:34 • (LCSD) R3233160-2 07/13/17 11:50

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	123	117	98.8	93.3	10.0-160			5.72	23
Acrylonitrile	125	128	133	103	107	60.0-142			3.85	20
Benzene	25.0	24.2	24.5	96.6	98.2	69.0-123			1.63	20
Bromobenzene	25.0	24.0	23.8	95.8	95.1	79.0-120			0.770	20
Bromodichloromethane	25.0	24.5	25.0	97.8	100	76.0-120			2.36	20
Bromochloromethane	25.0	24.5	25.3	97.8	101	76.0-122			3.36	20
Bromoform	25.0	24.1	24.3	96.4	97.1	67.0-132			0.690	20
Bromomethane	25.0	24.4	25.2	97.6	101	18.0-160			3.29	20
n-Butylbenzene	25.0	24.9	24.8	99.6	99.4	72.0-126			0.170	20
sec-Butylbenzene	25.0	25.0	24.8	100	99.3	74.0-121			0.750	20
tert-Butylbenzene	25.0	25.0	25.0	100	100	75.0-122			0.160	20
Carbon disulfide	25.0	24.0	24.0	96.1	96.1	55.0-127			0.0600	20
Carbon tetrachloride	25.0	22.7	25.6	90.8	102	63.0-122			11.8	20
Chlorobenzene	25.0	24.9	24.9	99.6	99.6	79.0-121			0.0300	20
Chlorodibromomethane	25.0	24.8	25.2	99.0	101	75.0-125			1.84	20
Chloroethane	25.0	24.7	25.4	98.6	101	47.0-152			2.87	20
Chloroform	25.0	24.2	24.7	96.9	98.8	72.0-121			1.97	20
Chloromethane	25.0	23.6	24.3	94.2	97.3	48.0-139			3.17	20
2-Chlorotoluene	25.0	24.6	24.6	98.6	98.3	74.0-122			0.320	20
4-Chlorotoluene	25.0	24.5	24.4	98.2	97.8	79.0-120			0.420	20
1,2-Dibromo-3-Chloropropane	25.0	24.4	23.9	97.6	95.4	64.0-127			2.22	20
1,2-Dibromoethane	25.0	24.7	24.6	98.7	98.5	77.0-123			0.130	20
Dibromomethane	25.0	24.2	24.8	96.9	99.1	78.0-120			2.24	20
1,2-Dichlorobenzene	25.0	24.7	24.5	98.8	97.9	80.0-120			0.920	20
1,3-Dichlorobenzene	25.0	24.5	24.2	97.9	96.7	72.0-123			1.22	20
1,4-Dichlorobenzene	25.0	24.1	24.6	96.5	98.3	77.0-120			1.87	20
Dichlorodifluoromethane	25.0	21.5	21.7	85.9	86.9	49.0-155			1.10	20
1,1-Dichloroethane	25.0	24.5	24.9	98.0	99.8	70.0-126			1.80	20
1,2-Dichloroethane	25.0	23.8	24.6	95.4	98.5	67.0-126			3.27	20
1,1-Dichloroethene	25.0	24.0	24.3	96.0	97.2	64.0-129			1.20	20
cis-1,2-Dichloroethene	25.0	24.2	24.7	96.7	98.9	73.0-120			2.27	20
trans-1,2-Dichloroethene	25.0	24.5	25.0	98.1	99.9	71.0-121			1.84	20
1,2-Dichloropropane	25.0	24.4	24.8	97.5	99.0	75.0-125			1.50	20
1,1-Dichloropropene	25.0	24.6	24.9	98.4	99.4	71.0-129			1.02	20
1,3-Dichloropropane	25.0	24.4	24.4	97.5	97.4	80.0-121			0.130	20
cis-1,3-Dichloropropene	25.0	24.8	24.9	99.0	99.6	79.0-123			0.650	20
trans-1,3-Dichloropropene	25.0	25.7	25.1	103	101	74.0-127			2.37	20
trans-1,4-Dichloro-2-butene	25.0	23.7	23.5	94.8	94.0	55.0-134			0.850	20
2,2-Dichloropropane	25.0	23.2	24.5	92.8	97.9	60.0-125			5.40	20
Di-isopropyl ether	25.0	23.9	24.7	95.4	98.9	59.0-133			3.54	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233160-1 07/13/17 11:34 • (LCSD) R3233160-2 07/13/17 11:50

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	24.7	25.0	98.9	100	77.0-120			1.27	20
Hexachloro-1,3-butadiene	25.0	24.8	24.6	99.1	98.6	64.0-131			0.480	20
2-Hexanone	125	124	122	99.1	97.9	58.0-147			1.22	20
n-Hexane	25.0	22.0	22.9	88.1	91.5	56.0-124			3.74	20
Iodomethane	125	124	126	98.9	101	57.0-140			2.16	20
Isopropylbenzene	25.0	24.9	24.8	99.5	99.4	75.0-120			0.130	20
p-Isopropyltoluene	25.0	25.1	24.8	101	99.3	74.0-126			1.22	20
2-Butanone (MEK)	125	125	126	99.8	101	37.0-158			0.930	20
Methylene Chloride	25.0	23.7	24.2	94.7	96.9	66.0-121			2.35	20
4-Methyl-2-pentanone (MIBK)	125	124	123	99.4	98.7	59.0-143			0.680	20
Methyl tert-butyl ether	25.0	24.1	25.4	96.5	102	64.0-123			5.21	20
Naphthalene	25.0	24.2	23.7	96.6	94.9	62.0-128			1.83	20
n-Propylbenzene	25.0	24.5	24.7	98.2	98.8	79.0-120			0.570	20
Styrene	25.0	25.2	25.0	101	99.9	78.0-124			0.900	20
1,1,1,2-Tetrachloroethane	25.0	24.6	24.8	98.2	99.1	75.0-122			0.870	20
1,1,2,2-Tetrachloroethane	25.0	23.6	23.7	94.5	94.7	71.0-122			0.130	20
1,1,2-Trichlorotrifluoroethane	25.0	23.4	23.6	93.6	94.5	61.0-136			0.960	20
Tetrachloroethene	25.0	24.3	24.1	97.4	96.4	70.0-127			1.02	20
Toluene	25.0	24.3	24.6	97.4	98.5	77.0-120			1.10	20
1,2,3-Trichlorobenzene	25.0	24.0	23.3	96.1	93.2	61.0-133			3.02	20
1,2,4-Trichlorobenzene	25.0	24.3	23.7	97.1	94.8	69.0-129			2.43	20
1,1,1-Trichloroethane	25.0	23.9	25.0	95.6	99.9	68.0-122			4.36	20
1,1,2-Trichloroethane	25.0	24.5	24.8	98.0	99.1	78.0-120			1.06	20
Trichlorofluoromethane	25.0	24.8	25.5	99.2	102	56.0-137			2.61	20
1,2,3-Trichloropropane	25.0	23.2	23.0	92.9	92.1	72.0-124			0.770	20
1,2,4-Trimethylbenzene	25.0	24.9	24.5	99.6	98.1	75.0-120			1.46	20
1,2,3-Trimethylbenzene	25.0	24.1	23.9	96.2	95.5	75.0-120			0.730	20
1,3,5-Trimethylbenzene	25.0	25.1	24.9	100	99.4	75.0-120			0.850	20
Vinyl acetate	125	122	130	97.3	104	46.0-160			6.58	20
Vinyl chloride	25.0	24.1	24.5	96.3	98.0	64.0-133			1.80	20
Xylenes, Total	75.0	75.0	75.1	100	100	77.0-120			0.130	20
Trichloroethene	25.0	25.3	25.1	101	100	78.0-120			0.600	20
(S) Toluene-d8				104	104	80.0-120				
(S) Dibromofluoromethane				99.5	101	76.0-123				
(S) 4-Bromofluorobenzene				100	99.5	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

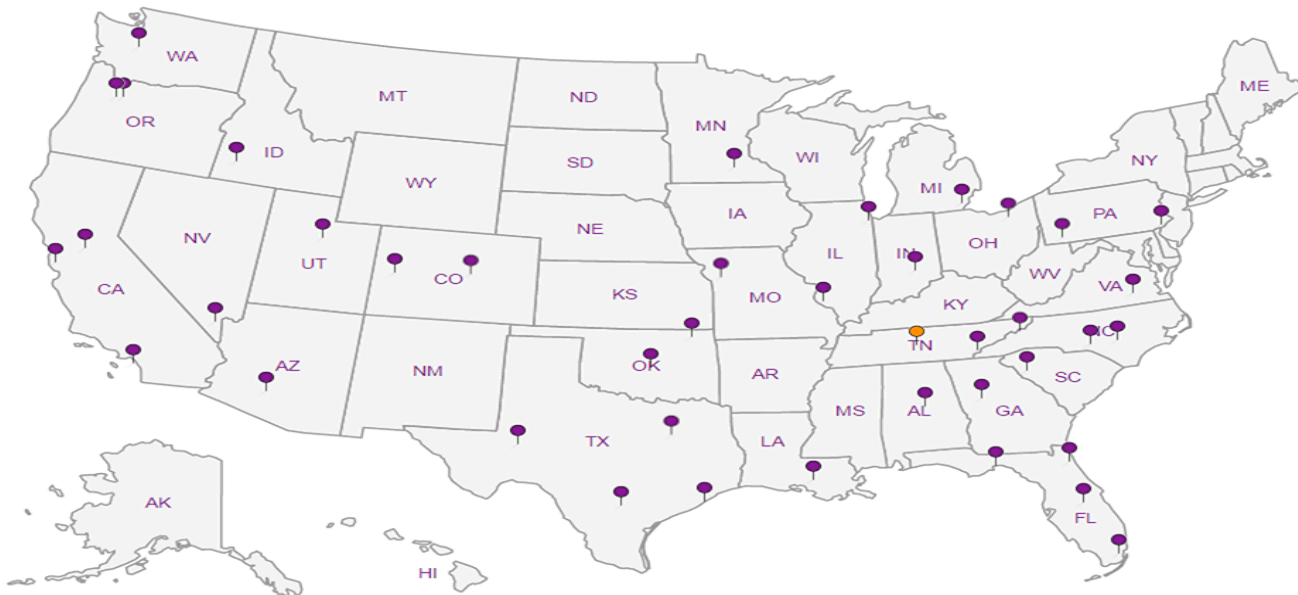
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc.- WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Report to: **Bill Haldeman**

Billing Information:
 Attn: Accounts Payable
 1215 Fourth Ave., Ste. 1350
 Seattle, WA 98161

Email To: **bhaldeman@pesenv.com**

City/State Collected: **SEATTLE, WA**

Chain of Custody Page ___ of ___



ESC
 L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



Project Description: **American Linen Supply**

Client Project #: **1413.001.02.002**

Lab Project #: **PESENVSWA-141300102**

Phone: **206-529-3980**

Fax: **206-529-3985**

Collected by (print): **SHANNON MCKERNAN**

Site/Facility ID #: **700 DEXTER AVE N SEATTLE**

P.O. #

Collected by (signature): *[Signature]*

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Immediately Packed on Ice N ___ Y **X**

Date Results Needed

No. of Cntrs

L# **1919454**

T **C033**

Acctnum: **PESENVSWA**

Template: **T124201**

Prelogin: **P603202**

TSR: **110 - Brian Ford**

PB: **5-31-17**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*Alk,Cl,NO3,S04 250miHDPE-NoPres	NWTPHGX 40miAmb-HCl	TOC 250miAmb-HCl	Total Fe Mn 6020 250miHDPE-HNO3	low level 8260C 40miAmb-HCl	low level RSK175 40miAmb-HCl	Analysis / Container / Preservative	Chain of Custody
C10-063017	GRAB	GW	75	6/30/17	08:10	11	X	X	X	X	X	X		
MW104-063017		GW	124		10:50	9	X	X	X	X	X	X		
MW106-063017		GW	135		12:45	9	X	X	X	X	X	X		
MW130-063017		GW	75		15:10	11	X	X	X	X	X	X		
G12-063017		GW	25		15:30	43	X	X	X	X	X	X		
TRIP BLANK	NA	GW	NA	4/11/17	NA	1	X	X	X	X	X	X		
		GW												
		GW												
		GW												
		GW												

* Matrix: SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: ***NO3 nitrate has a 48 hour holding time**

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via: UPS FedEx Courier

Tracking #

Relinquished by: (Signature) *[Signature]* Date: **6/30/17** Time: **14:1645**

Received by: (Signature) Trip Blank Received: Yes / No HC / MeoH TBR

Relinquished by: (Signature) Date: _____ Time: _____

Received by: (Signature) Temp: **23 °C** Bottles Received: **44 + TRS**

Relinquished by: (Signature) Date: _____ Time: _____

Received for lab by: (Signature) Date: **7-1-17** Time: **8am**

Hold: _____ Condition: **NCF / OK**

COC Seal Present/Intact: NP Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

If preservation required by Login: Date/Time

MEMORANDUM

TO: Project File **DATE:** July 30, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: June 30, 2017- Groundwater Samples
LAB: ESC Lab ID L919954

Five (5) groundwater samples including a field duplicate and a trip blank were collected as part of a groundwater sampling event at the Former American Linen Supply Site, in Seattle, Washington, on June 30, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs (dissolved gases: methane, ethane, and ethene) by Method RSK-175;
- Metals (iron and manganese) by EPA Method 6020;
- Alkalinity by Standard Methods (SM) of Examination of Water and Wastewater 22nd Edition 2320 B (Revised 2011);
- Anions (chloride, nitrate, and sulfate) by EPA Method 9056A; and
- Total Organic Carbon (TOC) by EPA Method 9060A.

The results are reported in ESC Sample Delivery Group (SDG) L919954. The quarterly monitoring round occurred between June 12 and 30 of 2017. Associated sample data are reported in fifteen ESC SDGs (SDGs L915737, L916025, L916678, L916723, L917439, L917461, L917742, L918096, L918387, L918537, L918598, L918687, L919100, L919285, and L919954). The quality assurance review of the sample data associated with SDG L919954 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data

Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 2.3 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

Samples were analyzed within the WA State recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

Method RSK-175:

Samples were analyzed within method recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria were met.

USEPA Method 6020:

Samples were analyzed within the USEPA recommended holding time for metals (iron and manganese) of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Samples were analyzed within the USEPA recommended holding time 48 hours for nitrate, 14 days for alkalinity, and 28 days for chloride, sulfate, and TOC. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable and ESC's notes do not indicate any issues with calibration.

Method Blank Results

USEPA Method 8260C:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

NWTPH-Gx Method:

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

Method RSK-175:

A laboratory method blank was included with the analytical batch per method requirement. The target analytes (dissolved gases) were not detected in the method blank at or above the RDL.

USEPA Method 6020:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (iron and manganese) were not detected in the method blanks at or below the RDL.

General Chemistry (SM 2320B, EPA Methods 9056A and 9060A):

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (alkalinity, anions, and TOC) were not detected in the method blanks at or above the RDL with the following discussion:

- Low levels of alkalinity and chloride were measured in the method blanks between the RDL and method detection limit (MDL). No action was necessary as associated alkalinity and chloride sample results are significantly greater than the detection in the blank.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was collected and submitted for analysis. The target analytes (VOCs and gasoline) were not detected in the method blank at or above the reported detection limits (RDLs).

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates (MW130-063017 and C10-063017) results are comparable and less than 20% RPD with the following exceptions:

- **Field duplicate results for TOC, gasoline, and VOC compound tetrachloroethene are estimated and qualified (J) due to RPDs greater than 20%.**

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Method RSK-175:

Laboratory duplicate samples were performed on non-client samples. The RPDs for the target analytes (dissolved gases) are within the laboratory control limit of 20% RPD.

USEPA Method 6020:

A laboratory duplicate sample was not analyzed. Refer to LCS/LCSD and/or MS/MSD results for precision data.

General Chemistry:

SM 2320B: Laboratory duplicate sample analyses were performed on non-client sample and on sample C10-063017 within the analytical batch. The primary/duplicate RPDs for alkalinity analyses are within the laboratory control limit of 20% with the following discussion:

- Non-client sample duplicate results were calculated on values less than the RDL. The RPD is elevated but no action was taken as this is a non-client sample and furthermore calculating RPDs on estimated values (less than the RDL) is not recommended.

EPA Method 9056A: Laboratory duplicate sample analyses were performed on non-client samples within the analytical batch. The primary/duplicate RPD for anions (chloride, nitrate, and sulfate) analyses are within the laboratory control limit of 15% for results greater than five times the reporting limit.

EPA Method 9060A: A laboratory duplicate sample analyses were performed on non-client samples. The primary/duplicate RPDs for TOC analyses are within the laboratory control limit of 20%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blank are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for water.

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method along with each analytical batch. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water.

Method RSK-175:

LCS/LCSDs were analyzed by the RSK-175 method along with each analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes (dissolved gases) are within the laboratory control criteria for water.

USEPA Method 6020:

LCS/LCSDs were analyzed by the USEPA Method 6020 along with the analytical batch. The LCS/LCSD %Rs and RPDs for the control analytes are within the laboratory control criteria for water.

General Chemistry:

SM 2320B: The LCS/LCSD %Rs and RPD for alkalinity are within the laboratory control criteria for water.

EPA Method 9056A: The LCS/LCSD %Rs and RPDs for anions are within the laboratory control criteria for water for each analytical batch.

EPA Method 9060A: The LCS/LCSD %Rs and RPD for TOC are within the laboratory control criteria for water for each analytical batch.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for additional information.

NWTPH-Gx Method:

Matrix spike analysis was performed on a non-client sample. MS/MSD % Rs were below the laboratory control criteria for water due to matrix interference. No action was taken in this case since the spike was performed on an unrelated sample and LCS/LCSD results are acceptable.

Method RSK-175:

MS/MSD analysis was not performed. Refer to LCS/LCSD results for additional information on accuracy and precision.

USEPA Method 6020:

MS/MSD analysis was performed on sample MW130-063017 within the analytical batch. MS/MSD % Rs and RPD for metals were within the laboratory control criteria for water with the following discussion:

- Manganese sample amount is greater than four times the spike amount and the spike recoveries were not within acceptance criteria. No action was taken other than to note this.

General Chemistry:

SM 2320B: Matrix spike analysis was not performed on samples submitted for alkalinity testing. Refer to LCS/LCSD results for additional information.

EPA Method 9056A: MS and MS/MSD analysis were performed on non-client sample and on sample MW130-063017 within the analytical batches. MS % Rs and MS/MSD % Rs and RPDs were within the laboratory control criteria for water with the following exception:

- Non-client nitrate matrix spike result is below acceptance criteria. No action was taken since this is a non-client sample and analytical batch LCS/LCSD results are acceptable.

EPA Method 9060A: MS/MSD analyses for TOC were performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for TOC were within the laboratory control criteria for water.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.

C10-063017

Collected date/time: 06/30/17 08:10

SAMPLE RESULTS - 01

L919954

ONE LAB. NATIONWIDE.



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	335000		2710	20000	1	07/11/2017 14:06	WG997492

15

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	111000		260	5000	5	07/01/2017 21:18	WG994932
Nitrate	U		22.7	100	1	07/01/2017 21:04	WG994932
Sulfate	6160		77.4	5000	1	07/01/2017 21:04	WG994932

Jc
7/30/17

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	9680	J	102	1000	1	07/07/2017 03:07	WG996343

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	876		15.0	100	1	07/06/2017 21:24	WG995966
Manganese	527		0.250	5.00	1	07/06/2017 21:24	WG995966

Al

Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	15000	J	158	500	5	07/13/2017 17:35	WG997249
(S) a, a, a-Trifluorotoluene(FID)	99.7			77.0-122		07/13/2017 17:35	WG997249

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	1120		0.287	0.678	1	07/06/2017 11:02	WG995803
Ethane	2.33		0.296	1.29	1	07/06/2017 11:02	WG995803
Ethene	69.1		0.422	1.27	1	07/06/2017 11:02	WG995803

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		10.5	250	10	07/13/2017 13:48	WG997929
Acrylonitrile	U		8.73	50.0	10	07/13/2017 13:48	WG997929
Benzene	U		0.896	5.00	10	07/13/2017 13:48	WG997929
Bromobenzene	U		1.33	5.00	10	07/13/2017 13:48	WG997929
Bromodichloromethane	U		0.800	5.00	10	07/13/2017 13:48	WG997929
Bromochloromethane	U		1.45	5.00	10	07/13/2017 13:48	WG997929
Bromoform	U		1.86	5.00	10	07/13/2017 13:48	WG997929
Bromomethane	U		1.57	25.0	10	07/13/2017 13:48	WG997929
n-Butylbenzene	U		1.43	5.00	10	07/13/2017 13:48	WG997929
sec-Butylbenzene	U		1.34	5.00	10	07/13/2017 13:48	WG997929
tert-Butylbenzene	U		1.83	5.00	10	07/13/2017 13:48	WG997929
Carbon disulfide	U		1.01	5.00	10	07/13/2017 13:48	WG997929
Carbon tetrachloride	U		1.59	5.00	10	07/13/2017 13:48	WG997929
Chlorobenzene	U		1.40	5.00	10	07/13/2017 13:48	WG997929
Chlorodibromomethane	U		1.28	5.00	10	07/13/2017 13:48	WG997929
Chloroethane	U		1.41	25.0	10	07/13/2017 13:48	WG997929

Jc
7/26/17

C10-063017

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 06/30/17 08:10

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
Chloroform	U		0.860	5.00	10	07/13/2017 13:48	WG997929	Cp
Chloromethane	U		1.53	12.5	10	07/13/2017 13:48	WG997929	Tc
2-Chlorotoluene	U		1.11	5.00	10	07/13/2017 13:48	WG997929	Ss
4-Chlorotoluene	U		0.972	5.00	10	07/13/2017 13:48	WG997929	Cn
1,2-Dibromo-3-Chloropropane	U		3.25	25.0	10	07/13/2017 13:48	WG997929	Sr
1,2-Dibromoethane	U		1.93	5.00	10	07/13/2017 13:48	WG997929	Qc
Dibromomethane	U		1.17	5.00	10	07/13/2017 13:48	WG997929	Gl
1,2-Dichlorobenzene	U		1.01	5.00	10	07/13/2017 13:48	WG997929	Al
1,3-Dichlorobenzene	U		1.30	5.00	10	07/13/2017 13:48	WG997929	Sc
1,4-Dichlorobenzene	U		1.21	5.00	10	07/13/2017 13:48	WG997929	
Dichlorodifluoromethane	U		1.27	25.0	10	07/13/2017 13:48	WG997929	
1,1-Dichloroethane	U		1.14	5.00	10	07/13/2017 13:48	WG997929	
1,2-Dichloroethane	U		1.08	5.00	10	07/13/2017 13:48	WG997929	
1,1-Dichloroethene	85.0		1.88	5.00	10	07/13/2017 13:48	WG997929	
cis-1,2-Dichloroethene	21300		46.6	250	500	07/14/2017 04:50	WG997929	
trans-1,2-Dichloroethene	57.3		1.52	5.00	10	07/13/2017 13:48	WG997929	
1,2-Dichloropropane	U		1.90	5.00	10	07/13/2017 13:48	WG997929	
1,1-Dichloropropene	U		1.28	5.00	10	07/13/2017 13:48	WG997929	
1,3-Dichloropropane	U		1.47	10.0	10	07/13/2017 13:48	WG997929	
cis-1,3-Dichloropropene	U		0.976	5.00	10	07/13/2017 13:48	WG997929	
trans-1,3-Dichloropropene	U		2.22	5.00	10	07/13/2017 13:48	WG997929	
trans-1,4-Dichloro-2-butene	U		2.57	50.0	10	07/13/2017 13:48	WG997929	
2,2-Dichloropropane	U		0.929	5.00	10	07/13/2017 13:48	WG997929	
Di-isopropyl ether	U		0.924	5.00	10	07/13/2017 13:48	WG997929	
Ethylbenzene	U		1.58	5.00	10	07/13/2017 13:48	WG997929	
Hexachloro-1,3-butadiene	U		1.57	10.0	10	07/13/2017 13:48	WG997929	
2-Hexanone	U		7.57	50.0	10	07/13/2017 13:48	WG997929	
n-Hexane	U		3.05	50.0	10	07/13/2017 13:48	WG997929	
Iodomethane	U		3.77	100	10	07/13/2017 13:48	WG997929	
Isopropylbenzene	U		1.26	5.00	10	07/13/2017 13:48	WG997929	
p-Isopropyltoluene	U		1.38	5.00	10	07/13/2017 13:48	WG997929	
2-Butanone (MEK)	U		12.8	50.0	10	07/13/2017 13:48	WG997929	
Methylene Chloride	U		10.7	25.0	10	07/13/2017 13:48	WG997929	
4-Methyl-2-pentanone (MIBK)	U		8.23	50.0	10	07/13/2017 13:48	WG997929	
Methyl tert-butyl ether	U		1.02	5.00	10	07/13/2017 13:48	WG997929	
Naphthalene	U		1.74	25.0	10	07/13/2017 13:48	WG997929	
n-Propylbenzene	U		1.62	5.00	10	07/13/2017 13:48	WG997929	
Styrene	U		1.17	5.00	10	07/13/2017 13:48	WG997929	
1,1,1,2-Tetrachloroethane	U		1.20	5.00	10	07/13/2017 13:48	WG997929	
1,1,2,2-Tetrachloroethane	U		1.30	5.00	10	07/13/2017 13:48	WG997929	
1,1,2-Trichlorotrifluoroethane	U		1.64	5.00	10	07/13/2017 13:48	WG997929	
Tetrachloroethene	1100	J	99.5	250	500	07/14/2017 04:50	WG997929	
Toluene	U		4.12	5.00	10	07/13/2017 13:48	WG997929	
1,2,3-Trichlorobenzene	U		1.64	5.00	10	07/13/2017 13:48	WG997929	
1,2,4-Trichlorobenzene	U		3.55	5.00	10	07/13/2017 13:48	WG997929	
1,1,1-Trichloroethane	U		0.940	5.00	10	07/13/2017 13:48	WG997929	
1,1,2-Trichloroethane	U		1.86	5.00	10	07/13/2017 13:48	WG997929	
Trichloroethene	5310		76.5	250	500	07/14/2017 04:50	WG997929	
Trichlorofluoromethane	U		1.30	25.0	10	07/13/2017 13:48	WG997929	
1,2,3-Trichloropropane	U		2.47	25.0	10	07/13/2017 13:48	WG997929	
1,2,4-Trimethylbenzene	U		1.23	5.00	10	07/13/2017 13:48	WG997929	
1,2,3-Trimethylbenzene	U		0.739	5.00	10	07/13/2017 13:48	WG997929	
1,3,5-Trimethylbenzene	U		1.24	5.00	10	07/13/2017 13:48	WG997929	
Vinyl acetate	U		6.45	50.0	10	07/13/2017 13:48	WG997929	
Vinyl chloride	549		1.18	5.00	10	07/13/2017 13:48	WG997929	
Xylenes, Total	U		3.16	15.0	10	07/13/2017 13:48	WG997929	

JC 7/26/17



Collected date/time: 06/30/17 08:10

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
(S) Toluene-d8	106 ✓			80.0-120		07/14/2017 04:50	WG997929	¹ Cp
(S) Toluene-d8	104 ✓			80.0-120		07/13/2017 13:48	WG997929	² Tc
(S) Dibromofluoromethane	92.9 ✓			76.0-123		07/14/2017 04:50	WG997929	³ Ss
(S) Dibromofluoromethane	99.2 ✓			76.0-123		07/13/2017 13:48	WG997929	⁴ Cn
(S) 4-Bromofluorobenzene	98.9 ✓			80.0-120		07/13/2017 13:48	WG997929	⁵ Sr
(S) 4-Bromofluorobenzene	94.9 ✓			80.0-120		07/14/2017 04:50	WG997929	⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc

J 7/26/17



Collected date/time: 06/30/17 10:50

L919954

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	218000		2710	20000	1	07/11/2017 14:28	WG997492

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	11700		51.9	1000	1	07/01/2017 21:33	WG994932
Nitrate	U		22.7	100	1	07/01/2017 21:33	WG994932
Sulfate	6050		77.4	5000	1	07/01/2017 21:33	WG994932

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1680		102	1000	1	07/07/2017 03:19	WG996343

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	1770		15.0	100	1	07/06/2017 21:28	WG995966
Manganese	360		0.250	5.00	1	07/06/2017 21:28	WG995966

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	40.6		0.287	0.678	1	07/06/2017 11:05	WG995803
Ethane	U		0.296	1.29	1	07/06/2017 11:05	WG995803
Ethene	U		0.422	1.27	1	07/06/2017 11:05	WG995803

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.45	J	1.05	25.0	1	07/13/2017 14:05	WG997929
Acrylonitrile	U		0.873	5.00	1	07/13/2017 14:05	WG997929
Benzene	U		0.0896	0.500	1	07/13/2017 14:05	WG997929
Bromobenzene	U		0.133	0.500	1	07/13/2017 14:05	WG997929
Bromodichloromethane	U		0.0800	0.500	1	07/13/2017 14:05	WG997929
Bromochloromethane	U		0.145	0.500	1	07/13/2017 14:05	WG997929
Bromoform	U		0.186	0.500	1	07/13/2017 14:05	WG997929
Bromomethane	U		0.157	2.50	1	07/13/2017 14:05	WG997929
n-Butylbenzene	U		0.143	0.500	1	07/13/2017 14:05	WG997929
sec-Butylbenzene	U		0.134	0.500	1	07/13/2017 14:05	WG997929
tert-Butylbenzene	U		0.183	0.500	1	07/13/2017 14:05	WG997929
Carbon disulfide	U		0.101	0.500	1	07/13/2017 14:05	WG997929
Carbon tetrachloride	U		0.159	0.500	1	07/13/2017 14:05	WG997929
Chlorobenzene	U		0.140	0.500	1	07/13/2017 14:05	WG997929
Chlorodibromomethane	U		0.128	0.500	1	07/13/2017 14:05	WG997929
Chloroethane	U		0.141	2.50	1	07/13/2017 14:05	WG997929
Chloroform	U		0.0860	0.500	1	07/13/2017 14:05	WG997929
Chloromethane	U		0.153	1.25	1	07/13/2017 14:05	WG997929
2-Chlorotoluene	U		0.111	0.500	1	07/13/2017 14:05	WG997929
4-Chlorotoluene	U		0.0972	0.500	1	07/13/2017 14:05	WG997929
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/13/2017 14:05	WG997929
1,2-Dibromoethane	U		0.193	0.500	1	07/13/2017 14:05	WG997929
Dibromomethane	U		0.117	0.500	1	07/13/2017 14:05	WG997929

JC 7/13/17



Collected date/time: 06/30/17 10:50

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/13/2017 14:05	WG997929
1,3-Dichlorobenzene	U		0.130	0.500	1	07/13/2017 14:05	WG997929
1,4-Dichlorobenzene	U		0.121	0.500	1	07/13/2017 14:05	WG997929
Dichlorodifluoromethane	U		0.127	2.50	1	07/13/2017 14:05	WG997929
1,1-Dichloroethane	U		0.114	0.500	1	07/13/2017 14:05	WG997929
1,2-Dichloroethane	U		0.108	0.500	1	07/13/2017 14:05	WG997929
1,1-Dichloroethene	0.387	J J	0.188	0.500	1	07/13/2017 14:05	WG997929
cis-1,2-Dichloroethene	1.54		0.0933	0.500	1	07/14/2017 05:07	WG997929
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/13/2017 14:05	WG997929
1,2-Dichloropropane	U		0.190	0.500	1	07/13/2017 14:05	WG997929
1,1-Dichloropropene	U		0.128	0.500	1	07/13/2017 14:05	WG997929
1,3-Dichloropropane	U		0.147	1.00	1	07/13/2017 14:05	WG997929
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/13/2017 14:05	WG997929
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/13/2017 14:05	WG997929
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/13/2017 14:05	WG997929
2,2-Dichloropropane	U		0.0929	0.500	1	07/13/2017 14:05	WG997929
Di-isopropyl ether	U		0.0924	0.500	1	07/13/2017 14:05	WG997929
Ethylbenzene	U		0.158	0.500	1	07/13/2017 14:05	WG997929
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/13/2017 14:05	WG997929
2-Hexanone	U		0.757	5.00	1	07/13/2017 14:05	WG997929
n-Hexane	U		0.305	5.00	1	07/13/2017 14:05	WG997929
Iodomethane	U		0.377	10.0	1	07/13/2017 14:05	WG997929
Isopropylbenzene	U		0.126	0.500	1	07/13/2017 14:05	WG997929
p-Isopropyltoluene	U		0.138	0.500	1	07/13/2017 14:05	WG997929
2-Butanone (MEK)	U		1.28	5.00	1	07/13/2017 14:05	WG997929
Methylene Chloride	U		1.07	2.50	1	07/13/2017 14:05	WG997929
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/13/2017 14:05	WG997929
Methyl tert-butyl ether	U		0.102	0.500	1	07/13/2017 14:05	WG997929
Naphthalene	U		0.174	2.50	1	07/13/2017 14:05	WG997929
n-Propylbenzene	U		0.162	0.500	1	07/13/2017 14:05	WG997929
Styrene	U		0.117	0.500	1	07/13/2017 14:05	WG997929
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/13/2017 14:05	WG997929
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/13/2017 14:05	WG997929
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/13/2017 14:05	WG997929
Tetrachloroethene	5.83		0.199	0.500	1	07/14/2017 05:07	WG997929
Toluene	0.903		0.412	0.500	1	07/13/2017 14:05	WG997929
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/13/2017 14:05	WG997929
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/13/2017 14:05	WG997929
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/13/2017 14:05	WG997929
1,1,2-Trichloroethane	U		0.186	0.500	1	07/13/2017 14:05	WG997929
Trichloroethene	5.21		0.153	0.500	1	07/14/2017 05:07	WG997929
Trichlorofluoromethane	U		0.130	2.50	1	07/13/2017 14:05	WG997929
1,2,3-Trichloropropane	U		0.247	2.50	1	07/13/2017 14:05	WG997929
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/13/2017 14:05	WG997929
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/13/2017 14:05	WG997929
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/13/2017 14:05	WG997929
Vinyl acetate	U		0.645	5.00	1	07/13/2017 14:05	WG997929
Vinyl chloride	U		0.118	0.500	1	07/13/2017 14:05	WG997929
Xylenes, Total	0.396	J J	0.316	1.50	1	07/13/2017 14:05	WG997929
(S) Toluene-d8	108			80.0-120		07/14/2017 05:07	WG997929
(S) Toluene-d8	104			80.0-120		07/13/2017 14:05	WG997929
(S) Dibromofluoromethane	90.8			76.0-123		07/14/2017 05:07	WG997929
(S) Dibromofluoromethane	100			76.0-123		07/13/2017 14:05	WG997929
(S) 4-Bromofluorobenzene	99.9			80.0-120		07/13/2017 14:05	WG997929
(S) 4-Bromofluorobenzene	95.6			80.0-120		07/14/2017 05:07	WG997929

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

7/26/17



Collected date/time: 06/30/17 12:45

L919954

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	305000		2710	20000	1	07/11/2017 14:36	WG997492

Cp

Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	27300		51.9	1000	1	07/01/2017 21:47	WG994932
Nitrate	U		22.7	100	1	07/01/2017 21:47	WG994932
Sulfate	18000		77.4	5000	1	07/01/2017 21:47	WG994932

Ss

Cn

Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	10000		102	1000	1	07/07/2017 03:30	WG996343

Qc

Gl

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	4960		15.0	100	1	07/06/2017 21:31	WG995966
Manganese	779		0.250	5.00	1	07/06/2017 21:31	WG995966

Al

Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	38.7		0.287	0.678	1	07/06/2017 11:08	WG995803
Ethane	U		0.296	1.29	1	07/06/2017 11:08	WG995803
Ethene	U		0.422	1.27	1	07/06/2017 11:08	WG995803

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	1.65	J	1.05	25.0	1	07/13/2017 14:21	WG997929
Acrylonitrile	U		0.873	5.00	1	07/13/2017 14:21	WG997929
Benzene	U		0.0896	0.500	1	07/13/2017 14:21	WG997929
Bromobenzene	U		0.133	0.500	1	07/13/2017 14:21	WG997929
Bromodichloromethane	U		0.0800	0.500	1	07/13/2017 14:21	WG997929
Bromochloromethane	U		0.145	0.500	1	07/13/2017 14:21	WG997929
Bromoform	U		0.186	0.500	1	07/13/2017 14:21	WG997929
Bromomethane	U		0.157	2.50	1	07/13/2017 14:21	WG997929
n-Butylbenzene	U		0.143	0.500	1	07/13/2017 14:21	WG997929
sec-Butylbenzene	U		0.134	0.500	1	07/13/2017 14:21	WG997929
tert-Butylbenzene	U		0.183	0.500	1	07/13/2017 14:21	WG997929
Carbon disulfide	U		0.101	0.500	1	07/13/2017 14:21	WG997929
Carbon tetrachloride	U		0.159	0.500	1	07/13/2017 14:21	WG997929
Chlorobenzene	U		0.140	0.500	1	07/13/2017 14:21	WG997929
Chlorodibromomethane	U		0.128	0.500	1	07/13/2017 14:21	WG997929
Chloroethane	U		0.141	2.50	1	07/13/2017 14:21	WG997929
Chloroform	U		0.0860	0.500	1	07/13/2017 14:21	WG997929
Chloromethane	U		0.153	1.25	1	07/13/2017 14:21	WG997929
2-Chlorotoluene	U		0.111	0.500	1	07/13/2017 14:21	WG997929
4-Chlorotoluene	U		0.0972	0.500	1	07/13/2017 14:21	WG997929
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/13/2017 14:21	WG997929
1,2-Dibromoethane	U		0.193	0.500	1	07/13/2017 14:21	WG997929
Dibromomethane	U		0.117	0.500	1	07/13/2017 14:21	WG997929

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Collected date/time: 06/30/17 12:45

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,2-Dichlorobenzene	U		0.101	0.500	1	07/13/2017 14:21	WG997929
1,3-Dichlorobenzene	U		0.130	0.500	1	07/13/2017 14:21	WG997929
1,4-Dichlorobenzene	U		0.121	0.500	1	07/13/2017 14:21	WG997929
Dichlorodifluoromethane	U		0.127	2.50	1	07/13/2017 14:21	WG997929
1,1-Dichloroethane	U		0.114	0.500	1	07/13/2017 14:21	WG997929
1,2-Dichloroethane	U		0.108	0.500	1	07/13/2017 14:21	WG997929
1,1-Dichloroethene	U		0.188	0.500	1	07/13/2017 14:21	WG997929
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/14/2017 05:24	WG997929
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/13/2017 14:21	WG997929
1,2-Dichloropropane	U		0.190	0.500	1	07/13/2017 14:21	WG997929
1,1-Dichloropropene	U		0.128	0.500	1	07/13/2017 14:21	WG997929
1,3-Dichloropropane	U		0.147	1.00	1	07/13/2017 14:21	WG997929
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/13/2017 14:21	WG997929
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/13/2017 14:21	WG997929
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/13/2017 14:21	WG997929
2,2-Dichloropropane	U		0.0929	0.500	1	07/13/2017 14:21	WG997929
Di-isopropyl ether	U		0.0924	0.500	1	07/13/2017 14:21	WG997929
Ethylbenzene	U		0.158	0.500	1	07/13/2017 14:21	WG997929
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/13/2017 14:21	WG997929
2-Hexanone	U		0.757	5.00	1	07/13/2017 14:21	WG997929
n-Hexane	U		0.305	5.00	1	07/13/2017 14:21	WG997929
Iodomethane	U		0.377	10.0	1	07/13/2017 14:21	WG997929
Isopropylbenzene	U		0.126	0.500	1	07/13/2017 14:21	WG997929
p-Isopropyltoluene	U		0.138	0.500	1	07/13/2017 14:21	WG997929
2-Butanone (MEK)	U		1.28	5.00	1	07/13/2017 14:21	WG997929
Methylene Chloride	U		1.07	2.50	1	07/13/2017 14:21	WG997929
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/13/2017 14:21	WG997929
Methyl tert-butyl ether	U		0.102	0.500	1	07/13/2017 14:21	WG997929
Naphthalene	U		0.174	2.50	1	07/13/2017 14:21	WG997929
n-Propylbenzene	U		0.162	0.500	1	07/13/2017 14:21	WG997929
Styrene	U		0.117	0.500	1	07/13/2017 14:21	WG997929
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/13/2017 14:21	WG997929
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/13/2017 14:21	WG997929
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/13/2017 14:21	WG997929
Tetrachloroethene	U		0.199	0.500	1	07/13/2017 14:21	WG997929
Toluene	0.419	J	0.412	0.500	1	07/13/2017 14:21	WG997929
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/13/2017 14:21	WG997929
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/13/2017 14:21	WG997929
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/13/2017 14:21	WG997929
1,1,2-Trichloroethane	U		0.186	0.500	1	07/13/2017 14:21	WG997929
Trichloroethene	U		0.153	0.500	1	07/13/2017 14:21	WG997929
Trichlorofluoromethane	U		0.130	2.50	1	07/13/2017 14:21	WG997929
1,2,3-Trichloropropane	U		0.247	2.50	1	07/13/2017 14:21	WG997929
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/13/2017 14:21	WG997929
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/13/2017 14:21	WG997929
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/13/2017 14:21	WG997929
Vinyl acetate	U		0.645	5.00	1	07/13/2017 14:21	WG997929
Vinyl chloride	U		0.118	0.500	1	07/13/2017 14:21	WG997929
Xylenes, Total	U		0.316	1.50	1	07/13/2017 14:21	WG997929
(S) Toluene-d8	105	✓		80.0-120		07/13/2017 14:21	WG997929
(S) Toluene-d8	107	✓		80.0-120		07/14/2017 05:24	WG997929
(S) Dibromofluoromethane	99.6	✓		76.0-123		07/13/2017 14:21	WG997929
(S) Dibromofluoromethane	94.3	✓		76.0-123		07/14/2017 05:24	WG997929
(S) 4-Bromofluorobenzene	99.2	✓		80.0-120		07/13/2017 14:21	WG997929
(S) 4-Bromofluorobenzene	96.4	✓		80.0-120		07/14/2017 05:24	WG997929

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

JK 7/26/17

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	339000		2710	20000	1	07/11/2017 14:43	WG997492

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	115000		519	10000	10	07/01/2017 22:59	WG994932
Nitrate	U	X	22.7	100	1	07/01/2017 22:45	WG994932
Sulfate	6230		77.4	5000	1	07/01/2017 22:45	WG994932

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1840	J	102	1000	1	07/07/2017 03:41	WG996343

gc 7/30/17

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	907		15.0	100	1	07/06/2017 19:48	WG995966
Manganese	532	V	0.250	5.00	1	07/06/2017 19:48	WG995966

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	10300	J	158	500	5	07/13/2017 17:57	WG997249
(S) a,a,a-Trifluorotoluene(FID)	96.1			77.0-122		07/13/2017 17:57	WG997249

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	1040		0.287	0.678	1	07/06/2017 11:17	WG995803
Ethane	2.47		0.296	1.29	1	07/06/2017 11:17	WG995803
Ethene	64.5		0.422	1.27	1	07/06/2017 11:17	WG995803

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		10.5	250	10	07/13/2017 14:38	WG997929
Acrylonitrile	U		8.73	50.0	10	07/13/2017 14:38	WG997929
Benzene	U		0.896	5.00	10	07/13/2017 14:38	WG997929
Bromobenzene	U		1.33	5.00	10	07/13/2017 14:38	WG997929
Bromodichloromethane	U		0.800	5.00	10	07/13/2017 14:38	WG997929
Bromochloromethane	U		1.45	5.00	10	07/13/2017 14:38	WG997929
Bromoform	U		1.86	5.00	10	07/13/2017 14:38	WG997929
Bromomethane	U		1.57	25.0	10	07/13/2017 14:38	WG997929
n-Butylbenzene	U		1.43	5.00	10	07/13/2017 14:38	WG997929
sec-Butylbenzene	U		1.34	5.00	10	07/13/2017 14:38	WG997929
tert-Butylbenzene	U		1.83	5.00	10	07/13/2017 14:38	WG997929
Carbon disulfide	U		1.01	5.00	10	07/13/2017 14:38	WG997929
Carbon tetrachloride	U		1.59	5.00	10	07/13/2017 14:38	WG997929
Chlorobenzene	U		1.40	5.00	10	07/13/2017 14:38	WG997929
Chlorodibromomethane	U		1.28	5.00	10	07/13/2017 14:38	WG997929
Chloroethane	U		1.41	25.0	10	07/13/2017 14:38	WG997929

gc 7/12/17



Collected date/time: 06/30/17 15:10

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloroform	U		0.860	5.00	10	07/13/2017 14:38	WG997929
Chloromethane	U		1.53	12.5	10	07/13/2017 14:38	WG997929
2-Chlorotoluene	U		1.11	5.00	10	07/13/2017 14:38	WG997929
4-Chlorotoluene	U		0.972	5.00	10	07/13/2017 14:38	WG997929
1,2-Dibromo-3-Chloropropane	U		3.25	25.0	10	07/13/2017 14:38	WG997929
1,2-Dibromoethane	U		1.93	5.00	10	07/13/2017 14:38	WG997929
Dibromomethane	U		1.17	5.00	10	07/13/2017 14:38	WG997929
1,2-Dichlorobenzene	U		1.01	5.00	10	07/13/2017 14:38	WG997929
1,3-Dichlorobenzene	U		1.30	5.00	10	07/13/2017 14:38	WG997929
1,4-Dichlorobenzene	U		1.21	5.00	10	07/13/2017 14:38	WG997929
Dichlorodifluoromethane	U		1.27	25.0	10	07/13/2017 14:38	WG997929
1,1-Dichloroethane	U		1.14	5.00	10	07/13/2017 14:38	WG997929
1,2-Dichloroethane	U		1.08	5.00	10	07/13/2017 14:38	WG997929
1,1-Dichloroethene	94.3		1.88	5.00	10	07/13/2017 14:38	WG997929
cis-1,2-Dichloroethene	20100		46.6	250	500	07/14/2017 05:41	WG997929
trans-1,2-Dichloroethene	55.6		1.52	5.00	10	07/13/2017 14:38	WG997929
1,2-Dichloropropane	U		1.90	5.00	10	07/13/2017 14:38	WG997929
1,1-Dichloropropene	U		1.28	5.00	10	07/13/2017 14:38	WG997929
1,3-Dichloropropane	U		1.47	10.0	10	07/13/2017 14:38	WG997929
cis-1,3-Dichloropropene	U		0.976	5.00	10	07/13/2017 14:38	WG997929
trans-1,3-Dichloropropene	U		2.22	5.00	10	07/13/2017 14:38	WG997929
trans-1,4-Dichloro-2-butene	U		2.57	50.0	10	07/13/2017 14:38	WG997929
2,2-Dichloropropane	U		0.929	5.00	10	07/13/2017 14:38	WG997929
Di-isopropyl ether	U		0.924	5.00	10	07/13/2017 14:38	WG997929
Ethylbenzene	U		1.58	5.00	10	07/13/2017 14:38	WG997929
Hexachloro-1,3-butadiene	U		1.57	10.0	10	07/13/2017 14:38	WG997929
2-Hexanone	U		7.57	50.0	10	07/13/2017 14:38	WG997929
n-Hexane	U		3.05	50.0	10	07/13/2017 14:38	WG997929
Iodomethane	U		3.77	100	10	07/13/2017 14:38	WG997929
Isopropylbenzene	U		1.26	5.00	10	07/13/2017 14:38	WG997929
p-Isopropyltoluene	U		1.38	5.00	10	07/13/2017 14:38	WG997929
2-Butanone (MEK)	U		12.8	50.0	10	07/13/2017 14:38	WG997929
Methylene Chloride	U		10.7	25.0	10	07/13/2017 14:38	WG997929
4-Methyl-2-pentanone (MIBK)	U		8.23	50.0	10	07/13/2017 14:38	WG997929
Methyl tert-butyl ether	U		1.02	5.00	10	07/13/2017 14:38	WG997929
Naphthalene	U		1.74	25.0	10	07/13/2017 14:38	WG997929
n-Propylbenzene	U		1.62	5.00	10	07/13/2017 14:38	WG997929
Styrene	U		1.17	5.00	10	07/13/2017 14:38	WG997929
1,1,1,2-Tetrachloroethane	U		1.20	5.00	10	07/13/2017 14:38	WG997929
1,1,2,2-Tetrachloroethane	U		1.30	5.00	10	07/13/2017 14:38	WG997929
1,1,2-Trichlorotrifluoroethane	U		1.64	5.00	10	07/13/2017 14:38	WG997929
Tetrachloroethene	6760	J	99.5	250	500	07/14/2017 05:41	WG997929
Toluene	U		4.12	5.00	10	07/13/2017 14:38	WG997929
1,2,3-Trichlorobenzene	U		1.64	5.00	10	07/13/2017 14:38	WG997929
1,2,4-Trichlorobenzene	U		3.55	5.00	10	07/13/2017 14:38	WG997929
1,1,1-Trichloroethane	U		0.940	5.00	10	07/13/2017 14:38	WG997929
1,1,2-Trichloroethane	U		1.86	5.00	10	07/13/2017 14:38	WG997929
Trichloroethene	4020		76.5	250	500	07/14/2017 05:41	WG997929
Trichlorofluoromethane	U		1.30	25.0	10	07/13/2017 14:38	WG997929
1,2,3-Trichloropropane	U		2.47	25.0	10	07/13/2017 14:38	WG997929
1,2,4-Trimethylbenzene	U		1.23	5.00	10	07/13/2017 14:38	WG997929
1,2,3-Trimethylbenzene	U		0.739	5.00	10	07/13/2017 14:38	WG997929
1,3,5-Trimethylbenzene	U		1.24	5.00	10	07/13/2017 14:38	WG997929
Vinyl acetate	U		6.45	50.0	10	07/13/2017 14:38	WG997929
Vinyl chloride	597		1.18	5.00	10	07/13/2017 14:38	WG997929
Xylenes, Total	U		3.16	15.0	10	07/13/2017 14:38	WG997929

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Si
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC
7/12/17



Collected date/time: 06/30/17 15:10

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Toluene-d8	108			80.0-120		07/14/2017 05:41	WG997929
(S) Toluene-d8	104			80.0-120		07/13/2017 14:38	WG997929
(S) Dibromofluoromethane	92.3			76.0-123		07/14/2017 05:41	WG997929
(S) Dibromofluoromethane	101			76.0-123		07/13/2017 14:38	WG997929
(S) 4-Bromofluorobenzene	97.2			80.0-120		07/13/2017 14:38	WG997929
(S) 4-Bromofluorobenzene	96.2			80.0-120		07/14/2017 05:41	WG997929



¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Handwritten signature and date: Jc 7/26/17

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.65	J J	1.05	25.0	1	07/13/2017 14:54	WG997929
Acrylonitrile	U		0.873	5.00	1	07/13/2017 14:54	WG997929
Benzene	0.282	J J	0.0896	0.500	1	07/13/2017 14:54	WG997929
Bromobenzene	U		0.133	0.500	1	07/13/2017 14:54	WG997929
Bromodichloromethane	U		0.0800	0.500	1	07/13/2017 14:54	WG997929
Bromochloromethane	U		0.145	0.500	1	07/13/2017 14:54	WG997929
Bromoform	U		0.186	0.500	1	07/13/2017 14:54	WG997929
Bromomethane	U		0.157	2.50	1	07/13/2017 14:54	WG997929
n-Butylbenzene	U		0.143	0.500	1	07/13/2017 14:54	WG997929
sec-Butylbenzene	U		0.134	0.500	1	07/13/2017 14:54	WG997929
tert-Butylbenzene	U		0.183	0.500	1	07/13/2017 14:54	WG997929
Carbon disulfide	U		0.101	0.500	1	07/13/2017 14:54	WG997929
Carbon tetrachloride	U		0.159	0.500	1	07/13/2017 14:54	WG997929
Chlorobenzene	U		0.140	0.500	1	07/13/2017 14:54	WG997929
Chlorodibromomethane	U		0.128	0.500	1	07/13/2017 14:54	WG997929
Chloroethane	0.539	J J	0.141	2.50	1	07/13/2017 14:54	WG997929
Chloroform	U		0.0860	0.500	1	07/13/2017 14:54	WG997929
Chloromethane	U		0.153	1.25	1	07/13/2017 14:54	WG997929
2-Chlorotoluene	U		0.111	0.500	1	07/13/2017 14:54	WG997929
4-Chlorotoluene	U		0.0972	0.500	1	07/13/2017 14:54	WG997929
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/13/2017 14:54	WG997929
1,2-Dibromoethane	U		0.193	0.500	1	07/13/2017 14:54	WG997929
Dibromomethane	U		0.117	0.500	1	07/13/2017 14:54	WG997929
1,2-Dichlorobenzene	U		0.101	0.500	1	07/13/2017 14:54	WG997929
1,3-Dichlorobenzene	U		0.130	0.500	1	07/13/2017 14:54	WG997929
1,4-Dichlorobenzene	U		0.121	0.500	1	07/13/2017 14:54	WG997929
Dichlorodifluoromethane	U		0.127	2.50	1	07/13/2017 14:54	WG997929
1,1-Dichloroethane	U		0.114	0.500	1	07/13/2017 14:54	WG997929
1,2-Dichloroethane	U		0.108	0.500	1	07/13/2017 14:54	WG997929
1,1-Dichloroethene	2.31		0.188	0.500	1	07/13/2017 14:54	WG997929
cis-1,2-Dichloroethene	115		0.0933	0.500	1	07/14/2017 05:58	WG997929
trans-1,2-Dichloroethene	2.94		0.152	0.500	1	07/13/2017 14:54	WG997929
1,2-Dichloropropane	U		0.190	0.500	1	07/13/2017 14:54	WG997929
1,1-Dichloropropene	U		0.128	0.500	1	07/13/2017 14:54	WG997929
1,3-Dichloropropane	U		0.147	1.00	1	07/13/2017 14:54	WG997929
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/13/2017 14:54	WG997929
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/13/2017 14:54	WG997929
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/13/2017 14:54	WG997929
2,2-Dichloropropane	U		0.0929	0.500	1	07/13/2017 14:54	WG997929
Di-isopropyl ether	U		0.0924	0.500	1	07/13/2017 14:54	WG997929
Ethylbenzene	U		0.158	0.500	1	07/13/2017 14:54	WG997929
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/13/2017 14:54	WG997929
2-Hexanone	U		0.757	5.00	1	07/13/2017 14:54	WG997929
n-Hexane	U		0.305	5.00	1	07/13/2017 14:54	WG997929
Iodomethane	U		0.377	10.0	1	07/13/2017 14:54	WG997929
Isopropylbenzene	U		0.126	0.500	1	07/13/2017 14:54	WG997929
p-Isopropyltoluene	U		0.138	0.500	1	07/13/2017 14:54	WG997929
2-Butanone (MEK)	U		1.28	5.00	1	07/13/2017 14:54	WG997929
Methylene Chloride	U		1.07	2.50	1	07/13/2017 14:54	WG997929
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/13/2017 14:54	WG997929
Methyl tert-butyl ether	U		0.102	0.500	1	07/13/2017 14:54	WG997929
Naphthalene	U		0.174	2.50	1	07/13/2017 14:54	WG997929
n-Propylbenzene	U		0.162	0.500	1	07/13/2017 14:54	WG997929
Styrene	U		0.117	0.500	1	07/13/2017 14:54	WG997929
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/13/2017 14:54	WG997929
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/13/2017 14:54	WG997929

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

Jr 7/26/17

G12-063017

SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.



Collected date/time: 06/30/17 15:30

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/13/2017 14:54	WG997929
Tetrachloroethene	U		0.199	0.500	1	07/14/2017 05:58	WG997929
Toluene	U		0.412	0.500	1	07/13/2017 14:54	WG997929
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/13/2017 14:54	WG997929
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/13/2017 14:54	WG997929
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/13/2017 14:54	WG997929
1,1,2-Trichloroethane	U		0.186	0.500	1	07/13/2017 14:54	WG997929
Trichloroethene	0.323	J	0.153	0.500	1	07/14/2017 05:58	WG997929
Trichlorofluoromethane	U		0.130	2.50	1	07/13/2017 14:54	WG997929
1,2,3-Trichloropropane	U		0.247	2.50	1	07/13/2017 14:54	WG997929
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/13/2017 14:54	WG997929
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/13/2017 14:54	WG997929
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/13/2017 14:54	WG997929
Vinyl acetate	U		0.645	5.00	1	07/13/2017 14:54	WG997929
Vinyl chloride	31.5		0.118	0.500	1	07/13/2017 14:54	WG997929
Xylenes, Total	U		0.316	1.50	1	07/13/2017 14:54	WG997929
(S) Toluene-d8	105			80.0-120		07/13/2017 14:54	WG997929
(S) Toluene-d8	106			80.0-120		07/14/2017 05:58	WG997929
(S) Dibromofluoromethane	92.5			76.0-123		07/14/2017 05:58	WG997929
(S) Dibromofluoromethane	101			76.0-123		07/13/2017 14:54	WG997929
(S) 4-Bromofluorobenzene	97.7			80.0-120		07/14/2017 05:58	WG997929
(S) 4-Bromofluorobenzene	99.3			80.0-120		07/13/2017 14:54	WG997929

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Si
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Collected date/time: 06/30/17 00:00

SAMPLE RESULTS - 06

L919954

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U	✓	31.6	100	1	07/12/2017 02:39	WG997249
(S) o,a,a-Trifluorotoluene(FID) 93.1	U	✓		77.0-122		07/12/2017 02:39	WG997249

Cp

Tc

Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	07/13/2017 12:58	WG997929
Acrylonitrile	U		0.873	5.00	1	07/13/2017 12:58	WG997929
Benzene	U		0.0896	0.500	1	07/13/2017 12:58	WG997929
Bromobenzene	U		0.133	0.500	1	07/13/2017 12:58	WG997929
Bromodichloromethane	U		0.0800	0.500	1	07/13/2017 12:58	WG997929
Bromochloromethane	U		0.145	0.500	1	07/13/2017 12:58	WG997929
Bromoform	U		0.186	0.500	1	07/13/2017 12:58	WG997929
Bromomethane	U		0.157	2.50	1	07/13/2017 12:58	WG997929
n-Butylbenzene	U		0.143	0.500	1	07/13/2017 12:58	WG997929
sec-Butylbenzene	U		0.134	0.500	1	07/13/2017 12:58	WG997929
tert-Butylbenzene	U		0.183	0.500	1	07/13/2017 12:58	WG997929
Carbon disulfide	U		0.101	0.500	1	07/13/2017 12:58	WG997929
Carbon tetrachloride	U		0.159	0.500	1	07/13/2017 12:58	WG997929
Chlorobenzene	U		0.140	0.500	1	07/13/2017 12:58	WG997929
Chlorodibromomethane	U		0.128	0.500	1	07/13/2017 12:58	WG997929
Chloroethane	U		0.141	2.50	1	07/13/2017 12:58	WG997929
Chloroform	U		0.0860	0.500	1	07/13/2017 12:58	WG997929
Chloromethane	U		0.153	1.25	1	07/13/2017 12:58	WG997929
2-Chlorotoluene	U		0.111	0.500	1	07/13/2017 12:58	WG997929
4-Chlorotoluene	U		0.0972	0.500	1	07/13/2017 12:58	WG997929
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	07/13/2017 12:58	WG997929
1,2-Dibromoethane	U		0.193	0.500	1	07/13/2017 12:58	WG997929
Dibromomethane	U		0.117	0.500	1	07/13/2017 12:58	WG997929
1,2-Dichlorobenzene	U		0.101	0.500	1	07/13/2017 12:58	WG997929
1,3-Dichlorobenzene	U		0.130	0.500	1	07/13/2017 12:58	WG997929
1,4-Dichlorobenzene	U		0.121	0.500	1	07/13/2017 12:58	WG997929
Dichlorodifluoromethane	U		0.127	2.50	1	07/13/2017 12:58	WG997929
1,1-Dichloroethane	U		0.114	0.500	1	07/13/2017 12:58	WG997929
1,2-Dichloroethane	U		0.108	0.500	1	07/13/2017 12:58	WG997929
1,1-Dichloroethene	U		0.188	0.500	1	07/13/2017 12:58	WG997929
cis-1,2-Dichloroethene	U		0.0933	0.500	1	07/13/2017 12:58	WG997929
trans-1,2-Dichloroethene	U		0.152	0.500	1	07/13/2017 12:58	WG997929
1,2-Dichloropropane	U		0.190	0.500	1	07/13/2017 12:58	WG997929
1,1-Dichloropropene	U		0.128	0.500	1	07/13/2017 12:58	WG997929
1,3-Dichloropropane	U		0.147	1.00	1	07/13/2017 12:58	WG997929
cis-1,3-Dichloropropene	U		0.0976	0.500	1	07/13/2017 12:58	WG997929
trans-1,3-Dichloropropene	U		0.222	0.500	1	07/13/2017 12:58	WG997929
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	07/13/2017 12:58	WG997929
2,2-Dichloropropane	U		0.0929	0.500	1	07/13/2017 12:58	WG997929
Di-isopropyl ether	U		0.0924	0.500	1	07/13/2017 12:58	WG997929
Ethylbenzene	U		0.158	0.500	1	07/13/2017 12:58	WG997929
Hexachloro-1,3-butadiene	U		0.157	1.00	1	07/13/2017 12:58	WG997929
2-Hexanone	U		0.757	5.00	1	07/13/2017 12:58	WG997929
n-Hexane	U		0.305	5.00	1	07/13/2017 12:58	WG997929
Iodomethane	U		0.377	10.0	1	07/13/2017 12:58	WG997929
Isopropylbenzene	U		0.126	0.500	1	07/13/2017 12:58	WG997929
p-Isopropyltoluene	U		0.138	0.500	1	07/13/2017 12:58	WG997929
2-Butanone (MEK)	U		1.28	5.00	1	07/13/2017 12:58	WG997929
Methylene Chloride	U		1.07	2.50	1	07/13/2017 12:58	WG997929

Cn

Sr

Qc

Gl

Al

Sc

JC 7/26/17

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SAMPLE RESULTS - 06

ONE LAB. NATIONWIDE.



Collected date/time: 06/30/17 00:00

L919954

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	07/13/2017 12:58	WG997929
Methyl tert-butyl ether	U		0.102	0.500	1	07/13/2017 12:58	WG997929
Naphthalene	U		0.174	2.50	1	07/13/2017 12:58	WG997929
n-Propylbenzene	U		0.162	0.500	1	07/13/2017 12:58	WG997929
Styrene	U		0.117	0.500	1	07/13/2017 12:58	WG997929
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	07/13/2017 12:58	WG997929
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	07/13/2017 12:58	WG997929
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	07/13/2017 12:58	WG997929
Tetrachloroethene	U		0.199	0.500	1	07/13/2017 12:58	WG997929
Toluene	U		0.412	0.500	1	07/13/2017 12:58	WG997929
1,2,3-Trichlorobenzene	U		0.164	0.500	1	07/13/2017 12:58	WG997929
1,2,4-Trichlorobenzene	U		0.355	0.500	1	07/13/2017 12:58	WG997929
1,1,1-Trichloroethane	U		0.0940	0.500	1	07/13/2017 12:58	WG997929
1,1,2-Trichloroethane	U		0.186	0.500	1	07/13/2017 12:58	WG997929
Trichloroethene	U		0.153	0.500	1	07/13/2017 12:58	WG997929
Trichlorofluoromethane	U		0.130	2.50	1	07/13/2017 12:58	WG997929
1,2,3-Trichloropropane	U		0.247	2.50	1	07/13/2017 12:58	WG997929
1,2,4-Trimethylbenzene	U		0.123	0.500	1	07/13/2017 12:58	WG997929
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	07/13/2017 12:58	WG997929
1,3,5-Trimethylbenzene	U		0.124	0.500	1	07/13/2017 12:58	WG997929
Vinyl acetate	U		0.645	5.00	1	07/13/2017 12:58	WG997929
Vinyl chloride	U		0.118	0.500	1	07/13/2017 12:58	WG997929
Xylenes, Total	U		0.316	1.50	1	07/13/2017 12:58	WG997929
(S) Toluene-d8	106			80.0-120		07/13/2017 12:58	WG997929
(S) Dibromofluoromethane	95.0			76.0-123		07/13/2017 12:58	WG997929
(S) 4-Bromofluorobenzene	100			80.0-120		07/13/2017 12:58	WG997929



JC
7/26/17

PES Environmental, Inc.- WA

Sample Delivery Group: L929881
Samples Received: 08/16/2017
Project Number: 1413.001.02.602
Description: American Linen Project
Site: 1413.001.02.602
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



MW-133-20 L929881-01 Solid

Collected by
K. Springstead
Collected date/time
08/15/17 10:00
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011911	1	08/21/17 09:30	08/21/17 09:43	MLW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011634	1	08/15/17 10:00	08/20/17 01:10	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	1	08/15/17 10:00	08/22/17 03:23	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	25	08/15/17 10:00	08/23/17 03:15	ACG

1
Cp

2
Tc

3
Ss

4
Cn

MW-133-35 L929881-02 Solid

Collected by
K. Springstead
Collected date/time
08/15/17 10:40
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011913	1	08/21/17 09:09	08/21/17 09:20	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011634	1	08/15/17 10:40	08/20/17 01:32	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	1	08/15/17 10:40	08/22/17 03:45	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	25	08/15/17 10:40	08/23/17 03:36	ACG

5
Sr

6
Qc

7
Gl

8
Al

MW-133-45 L929881-03 Solid

Collected by
K. Springstead
Collected date/time
08/15/17 11:10
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011913	1	08/21/17 09:09	08/21/17 09:20	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011634	1	08/15/17 11:10	08/20/17 01:54	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	1	08/15/17 11:10	08/22/17 04:06	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	200	08/15/17 11:10	08/23/17 03:57	ACG

9
Sc

MW-133-55 L929881-04 Solid

Collected by
K. Springstead
Collected date/time
08/15/17 11:45
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011913	1	08/21/17 09:09	08/21/17 09:20	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011634	50	08/15/17 11:45	08/22/17 15:26	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	1000	08/15/17 11:45	08/23/17 04:18	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	10000	08/15/17 11:45	08/23/17 15:19	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	200	08/15/17 11:45	08/22/17 04:27	JAH

MW-133-58 L929881-05 Solid

Collected by
K. Springstead
Collected date/time
08/15/17 12:15
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011913	1	08/21/17 09:09	08/21/17 09:20	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011634	500	08/15/17 12:15	08/22/17 15:49	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	5000	08/15/17 12:15	08/22/17 04:48	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	5000	08/15/17 12:15	08/23/17 04:41	ACG

MW-133-65 L929881-06 Solid

Collected by
K. Springstead
Collected date/time
08/15/17 14:00
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011913	1	08/21/17 09:09	08/21/17 09:20	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011634	1	08/15/17 14:00	08/19/17 19:38	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	1	08/15/17 14:00	08/22/17 05:08	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	250	08/15/17 14:00	08/23/17 05:02	ACG

SAMPLE SUMMARY



MW-133-80-W L929881-07 GW

Collected by K. Springstead	Collected date/time 08/15/17 15:15	Received date/time 08/16/17 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011763	1	08/20/17 22:48	08/20/17 22:48	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010972	1	08/18/17 03:30	08/18/17 03:30	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010972	200	08/22/17 03:34	08/22/17 03:34	LRL

1
Cp

2
Tc

3
Ss

4
Cn

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Sr

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Qc

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Gl

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Al

9
Sc

MW-133-75 L929881-08 Solid

Collected by K. Springstead	Collected date/time 08/15/17 14:20	Received date/time 08/16/17 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011920	1	08/21/17 09:22	08/21/17 09:45	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011634	1	08/15/17 14:20	08/19/17 20:00	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	1	08/15/17 14:20	08/19/17 01:12	ACG



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.9		1	08/21/2017 09:43	WG1011911

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.183		0.0400	0.118	1	08/20/2017 01:10	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	96.7			77.0-120		08/20/2017 01:10	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0279	J	0.0118	0.0589	1	08/22/2017 03:23	WG1010895
Acrylonitrile	U		0.00211	0.0118	1	08/22/2017 03:23	WG1010895
Benzene	0.000422	J	0.000318	0.00118	1	08/22/2017 03:23	WG1010895
Bromobenzene	U		0.000335	0.00118	1	08/22/2017 03:23	WG1010895
Bromodichloromethane	U		0.000299	0.00118	1	08/22/2017 03:23	WG1010895
Bromochloromethane	U		0.000460	0.00589	1	08/22/2017 03:23	WG1010895
Bromoform	U		0.000500	0.00118	1	08/22/2017 03:23	WG1010895
Bromomethane	U		0.00158	0.00589	1	08/22/2017 03:23	WG1010895
n-Butylbenzene	U		0.000304	0.00118	1	08/22/2017 03:23	WG1010895
sec-Butylbenzene	U		0.000237	0.00118	1	08/22/2017 03:23	WG1010895
tert-Butylbenzene	U		0.000243	0.00118	1	08/22/2017 03:23	WG1010895
Carbon disulfide	0.00252		0.000260	0.00118	1	08/22/2017 03:23	WG1010895
Carbon tetrachloride	U		0.000387	0.00118	1	08/22/2017 03:23	WG1010895
Chlorobenzene	U		0.000250	0.00118	1	08/22/2017 03:23	WG1010895
Chlorodibromomethane	U		0.000440	0.00118	1	08/22/2017 03:23	WG1010895
Chloroethane	U		0.00111	0.00589	1	08/22/2017 03:23	WG1010895
Chloroform	U		0.000270	0.00589	1	08/22/2017 03:23	WG1010895
Chloromethane	U		0.000442	0.00295	1	08/22/2017 03:23	WG1010895
2-Chlorotoluene	U		0.000355	0.00118	1	08/22/2017 03:23	WG1010895
4-Chlorotoluene	U		0.000283	0.00118	1	08/22/2017 03:23	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00124	0.00589	1	08/22/2017 03:23	WG1010895
1,2-Dibromoethane	U		0.000404	0.00118	1	08/22/2017 03:23	WG1010895
Dibromomethane	U		0.000450	0.00118	1	08/22/2017 03:23	WG1010895
1,2-Dichlorobenzene	U		0.000359	0.00118	1	08/22/2017 03:23	WG1010895
1,3-Dichlorobenzene	U		0.000282	0.00118	1	08/22/2017 03:23	WG1010895
1,4-Dichlorobenzene	U		0.000266	0.00118	1	08/22/2017 03:23	WG1010895
Dichlorodifluoromethane	U		0.000840	0.00589	1	08/22/2017 03:23	WG1010895
1,1-Dichloroethane	U		0.000235	0.00118	1	08/22/2017 03:23	WG1010895
1,2-Dichloroethane	U		0.000312	0.00118	1	08/22/2017 03:23	WG1010895
1,1-Dichloroethene	0.000487	J	0.000357	0.00118	1	08/22/2017 03:23	WG1010895
cis-1,2-Dichloroethene	0.159		0.000277	0.00118	1	08/22/2017 03:23	WG1010895
trans-1,2-Dichloroethene	0.000591	J	0.000311	0.00118	1	08/22/2017 03:23	WG1010895
1,2-Dichloropropane	U		0.000422	0.00118	1	08/22/2017 03:23	WG1010895
1,1-Dichloropropene	U		0.000374	0.00118	1	08/22/2017 03:23	WG1010895
1,3-Dichloropropane	U		0.000244	0.00118	1	08/22/2017 03:23	WG1010895
cis-1,3-Dichloropropene	U		0.000309	0.00118	1	08/22/2017 03:23	WG1010895
trans-1,3-Dichloropropene	U		0.000315	0.00118	1	08/22/2017 03:23	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000917	0.00295	1	08/22/2017 03:23	WG1010895
2,2-Dichloropropane	U		0.000329	0.00118	1	08/22/2017 03:23	WG1010895
Di-isopropyl ether	U		0.000292	0.00118	1	08/22/2017 03:23	WG1010895
Ethylbenzene	U		0.000350	0.00118	1	08/22/2017 03:23	WG1010895
Hexachloro-1,3-butadiene	U	JO	0.000403	0.00118	1	08/22/2017 03:23	WG1010895
2-Hexanone	U		0.00161	0.0118	1	08/22/2017 03:23	WG1010895
n-Hexane	0.00531	J	0.000342	0.0118	1	08/22/2017 03:23	WG1010895



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00298	0.0118	1	08/22/2017 03:23	WG1010895
Isopropylbenzene	U		0.000286	0.00118	1	08/22/2017 03:23	WG1010895
p-Isopropyltoluene	U		0.000240	0.00118	1	08/22/2017 03:23	WG1010895
2-Butanone (MEK)	U		0.00552	0.0118	1	08/22/2017 03:23	WG1010895
Methylene Chloride	U		0.00118	0.00589	1	08/22/2017 03:23	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00222	0.0118	1	08/22/2017 03:23	WG1010895
Methyl tert-butyl ether	U		0.000250	0.00118	1	08/22/2017 03:23	WG1010895
Naphthalene	U		0.00118	0.00589	1	08/22/2017 03:23	WG1010895
n-Propylbenzene	U		0.000243	0.00118	1	08/22/2017 03:23	WG1010895
Styrene	U		0.000276	0.00118	1	08/22/2017 03:23	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000311	0.00118	1	08/22/2017 03:23	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000430	0.00118	1	08/22/2017 03:23	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000430	0.00118	1	08/22/2017 03:23	WG1010895
Tetrachloroethene	3.62		0.00813	0.0295	25	08/23/2017 03:15	WG1010895
Toluene	U		0.000511	0.00589	1	08/22/2017 03:23	WG1010895
1,2,3-Trichlorobenzene	U	JO	0.000361	0.00118	1	08/22/2017 03:23	WG1010895
1,2,4-Trichlorobenzene	U	JO	0.000457	0.00118	1	08/22/2017 03:23	WG1010895
1,1,1-Trichloroethane	U		0.000337	0.00118	1	08/22/2017 03:23	WG1010895
1,1,2-Trichloroethane	U		0.000326	0.00118	1	08/22/2017 03:23	WG1010895
Trichloroethene	0.0688		0.000329	0.00118	1	08/22/2017 03:23	WG1010895
Trichlorofluoromethane	U		0.000450	0.00589	1	08/22/2017 03:23	WG1010895
1,2,3-Trichloropropane	U		0.000873	0.00295	1	08/22/2017 03:23	WG1010895
1,2,4-Trimethylbenzene	U		0.000249	0.00118	1	08/22/2017 03:23	WG1010895
1,2,3-Trimethylbenzene	U		0.000338	0.00118	1	08/22/2017 03:23	WG1010895
1,3,5-Trimethylbenzene	U		0.000313	0.00118	1	08/22/2017 03:23	WG1010895
Vinyl acetate	U		0.00282	0.0118	1	08/22/2017 03:23	WG1010895
Vinyl chloride	0.000389	J	0.000343	0.00118	1	08/22/2017 03:23	WG1010895
Xylenes, Total	U		0.000823	0.00354	1	08/22/2017 03:23	WG1010895
(S) Toluene-d8	92.3			80.0-120		08/23/2017 03:15	WG1010895
(S) Toluene-d8	93.4			80.0-120		08/22/2017 03:23	WG1010895
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 03:15	WG1010895
(S) Dibromofluoromethane	112			74.0-131		08/22/2017 03:23	WG1010895
(S) 4-Bromofluorobenzene	105			64.0-132		08/22/2017 03:23	WG1010895
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 03:15	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	76.6		1	08/21/2017 09:20	WG1011913

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0443	0.131	1	08/20/2017 01:32	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	96.5			77.0-120		08/20/2017 01:32	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.169		0.0131	0.0653	1	08/22/2017 03:45	WG1010895
Acrylonitrile	U		0.00234	0.0131	1	08/22/2017 03:45	WG1010895
Benzene	U		0.000353	0.00131	1	08/22/2017 03:45	WG1010895
Bromobenzene	U		0.000371	0.00131	1	08/22/2017 03:45	WG1010895
Bromodichloromethane	U		0.000332	0.00131	1	08/22/2017 03:45	WG1010895
Bromochloromethane	U		0.000509	0.00653	1	08/22/2017 03:45	WG1010895
Bromoform	U		0.000554	0.00131	1	08/22/2017 03:45	WG1010895
Bromomethane	U		0.00175	0.00653	1	08/22/2017 03:45	WG1010895
n-Butylbenzene	U		0.000337	0.00131	1	08/22/2017 03:45	WG1010895
sec-Butylbenzene	U		0.000262	0.00131	1	08/22/2017 03:45	WG1010895
tert-Butylbenzene	U		0.000269	0.00131	1	08/22/2017 03:45	WG1010895
Carbon disulfide	0.000593	J	0.000289	0.00131	1	08/22/2017 03:45	WG1010895
Carbon tetrachloride	U		0.000428	0.00131	1	08/22/2017 03:45	WG1010895
Chlorobenzene	U		0.000277	0.00131	1	08/22/2017 03:45	WG1010895
Chlorodibromomethane	U		0.000487	0.00131	1	08/22/2017 03:45	WG1010895
Chloroethane	U		0.00124	0.00653	1	08/22/2017 03:45	WG1010895
Chloroform	U		0.000299	0.00653	1	08/22/2017 03:45	WG1010895
Chloromethane	U		0.000490	0.00326	1	08/22/2017 03:45	WG1010895
2-Chlorotoluene	U		0.000393	0.00131	1	08/22/2017 03:45	WG1010895
4-Chlorotoluene	U		0.000313	0.00131	1	08/22/2017 03:45	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00137	0.00653	1	08/22/2017 03:45	WG1010895
1,2-Dibromoethane	U		0.000448	0.00131	1	08/22/2017 03:45	WG1010895
Dibromomethane	U		0.000499	0.00131	1	08/22/2017 03:45	WG1010895
1,2-Dichlorobenzene	U		0.000398	0.00131	1	08/22/2017 03:45	WG1010895
1,3-Dichlorobenzene	U		0.000312	0.00131	1	08/22/2017 03:45	WG1010895
1,4-Dichlorobenzene	U		0.000295	0.00131	1	08/22/2017 03:45	WG1010895
Dichlorodifluoromethane	U		0.000931	0.00653	1	08/22/2017 03:45	WG1010895
1,1-Dichloroethane	U		0.000260	0.00131	1	08/22/2017 03:45	WG1010895
1,2-Dichloroethane	U		0.000346	0.00131	1	08/22/2017 03:45	WG1010895
1,1-Dichloroethene	U		0.000396	0.00131	1	08/22/2017 03:45	WG1010895
cis-1,2-Dichloroethene	0.000361	J	0.000307	0.00131	1	08/22/2017 03:45	WG1010895
trans-1,2-Dichloroethene	U		0.000345	0.00131	1	08/22/2017 03:45	WG1010895
1,2-Dichloropropane	U		0.000467	0.00131	1	08/22/2017 03:45	WG1010895
1,1-Dichloropropene	U		0.000414	0.00131	1	08/22/2017 03:45	WG1010895
1,3-Dichloropropane	U		0.000270	0.00131	1	08/22/2017 03:45	WG1010895
cis-1,3-Dichloropropene	U		0.000342	0.00131	1	08/22/2017 03:45	WG1010895
trans-1,3-Dichloropropene	U		0.000349	0.00131	1	08/22/2017 03:45	WG1010895
trans-1,4-Dichloro-2-butene	U		0.00102	0.00326	1	08/22/2017 03:45	WG1010895
2,2-Dichloropropane	U		0.000364	0.00131	1	08/22/2017 03:45	WG1010895
Di-isopropyl ether	U		0.000324	0.00131	1	08/22/2017 03:45	WG1010895
Ethylbenzene	U		0.000388	0.00131	1	08/22/2017 03:45	WG1010895
Hexachloro-1,3-butadiene	U	JO	0.000447	0.00131	1	08/22/2017 03:45	WG1010895
2-Hexanone	U		0.00179	0.0131	1	08/22/2017 03:45	WG1010895
n-Hexane	U		0.000379	0.0131	1	08/22/2017 03:45	WG1010895



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00330	0.0131	1	08/22/2017 03:45	WG1010895
Isopropylbenzene	U		0.000317	0.00131	1	08/22/2017 03:45	WG1010895
p-Isopropyltoluene	U		0.000266	0.00131	1	08/22/2017 03:45	WG1010895
2-Butanone (MEK)	0.0258		0.00611	0.0131	1	08/22/2017 03:45	WG1010895
Methylene Chloride	U		0.00131	0.00653	1	08/22/2017 03:45	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00245	0.0131	1	08/22/2017 03:45	WG1010895
Methyl tert-butyl ether	U		0.000277	0.00131	1	08/22/2017 03:45	WG1010895
Naphthalene	U		0.00131	0.00653	1	08/22/2017 03:45	WG1010895
n-Propylbenzene	U		0.000269	0.00131	1	08/22/2017 03:45	WG1010895
Styrene	U		0.000306	0.00131	1	08/22/2017 03:45	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000345	0.00131	1	08/22/2017 03:45	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000477	0.00131	1	08/22/2017 03:45	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000477	0.00131	1	08/22/2017 03:45	WG1010895
Tetrachloroethene	U		0.00901	0.0326	25	08/23/2017 03:36	WG1010895
Toluene	U		0.000567	0.00653	1	08/22/2017 03:45	WG1010895
1,2,3-Trichlorobenzene	U	JO	0.000400	0.00131	1	08/22/2017 03:45	WG1010895
1,2,4-Trichlorobenzene	U	JO	0.000507	0.00131	1	08/22/2017 03:45	WG1010895
1,1,1-Trichloroethane	U		0.000373	0.00131	1	08/22/2017 03:45	WG1010895
1,1,2-Trichloroethane	U		0.000362	0.00131	1	08/22/2017 03:45	WG1010895
Trichloroethene	0.000594	J	0.000364	0.00131	1	08/22/2017 03:45	WG1010895
Trichlorofluoromethane	U		0.000499	0.00653	1	08/22/2017 03:45	WG1010895
1,2,3-Trichloropropane	U		0.000967	0.00326	1	08/22/2017 03:45	WG1010895
1,2,4-Trimethylbenzene	U		0.000275	0.00131	1	08/22/2017 03:45	WG1010895
1,2,3-Trimethylbenzene	U		0.000375	0.00131	1	08/22/2017 03:45	WG1010895
1,3,5-Trimethylbenzene	U		0.000347	0.00131	1	08/22/2017 03:45	WG1010895
Vinyl acetate	U		0.00312	0.0131	1	08/22/2017 03:45	WG1010895
Vinyl chloride	U		0.000380	0.00131	1	08/22/2017 03:45	WG1010895
Xylenes, Total	U		0.000911	0.00392	1	08/22/2017 03:45	WG1010895
(S) Toluene-d8	96.1			80.0-120		08/22/2017 03:45	WG1010895
(S) Toluene-d8	86.2			80.0-120		08/23/2017 03:36	WG1010895
(S) Dibromofluoromethane	101			74.0-131		08/23/2017 03:36	WG1010895
(S) Dibromofluoromethane	114			74.0-131		08/22/2017 03:45	WG1010895
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 03:36	WG1010895
(S) 4-Bromofluorobenzene	105			64.0-132		08/22/2017 03:45	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L929881-02 WG1010895: No low level sodium bisulfite vials remaining. PCE cannot be analyzed at a lower dilution.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.0		1	08/21/2017 09:20	WG1011913

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	3.59		0.0368	0.109	1	08/20/2017 01:54	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	95.5			77.0-120		08/20/2017 01:54	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0142	J	0.0109	0.0543	1	08/22/2017 04:06	WG1010895
Acrylonitrile	U		0.00195	0.0109	1	08/22/2017 04:06	WG1010895
Benzene	U		0.000293	0.00109	1	08/22/2017 04:06	WG1010895
Bromobenzene	U		0.000309	0.00109	1	08/22/2017 04:06	WG1010895
Bromodichloromethane	U		0.000276	0.00109	1	08/22/2017 04:06	WG1010895
Bromochloromethane	U		0.000424	0.00543	1	08/22/2017 04:06	WG1010895
Bromoform	U		0.000461	0.00109	1	08/22/2017 04:06	WG1010895
Bromomethane	U		0.00146	0.00543	1	08/22/2017 04:06	WG1010895
n-Butylbenzene	U		0.000280	0.00109	1	08/22/2017 04:06	WG1010895
sec-Butylbenzene	U		0.000218	0.00109	1	08/22/2017 04:06	WG1010895
tert-Butylbenzene	U		0.000224	0.00109	1	08/22/2017 04:06	WG1010895
Carbon disulfide	0.00239		0.000240	0.00109	1	08/22/2017 04:06	WG1010895
Carbon tetrachloride	U		0.000356	0.00109	1	08/22/2017 04:06	WG1010895
Chlorobenzene	U		0.000230	0.00109	1	08/22/2017 04:06	WG1010895
Chlorodibromomethane	U		0.000405	0.00109	1	08/22/2017 04:06	WG1010895
Chloroethane	U		0.00103	0.00543	1	08/22/2017 04:06	WG1010895
Chloroform	U		0.000249	0.00543	1	08/22/2017 04:06	WG1010895
Chloromethane	U		0.000408	0.00272	1	08/22/2017 04:06	WG1010895
2-Chlorotoluene	U		0.000327	0.00109	1	08/22/2017 04:06	WG1010895
4-Chlorotoluene	U		0.000261	0.00109	1	08/22/2017 04:06	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00114	0.00543	1	08/22/2017 04:06	WG1010895
1,2-Dibromoethane	U		0.000373	0.00109	1	08/22/2017 04:06	WG1010895
Dibromomethane	U		0.000415	0.00109	1	08/22/2017 04:06	WG1010895
1,2-Dichlorobenzene	U		0.000331	0.00109	1	08/22/2017 04:06	WG1010895
1,3-Dichlorobenzene	U		0.000260	0.00109	1	08/22/2017 04:06	WG1010895
1,4-Dichlorobenzene	U		0.000246	0.00109	1	08/22/2017 04:06	WG1010895
Dichlorodifluoromethane	U		0.000775	0.00543	1	08/22/2017 04:06	WG1010895
1,1-Dichloroethane	U		0.000216	0.00109	1	08/22/2017 04:06	WG1010895
1,2-Dichloroethane	U		0.000288	0.00109	1	08/22/2017 04:06	WG1010895
1,1-Dichloroethene	0.0115		0.000329	0.00109	1	08/22/2017 04:06	WG1010895
cis-1,2-Dichloroethene	13.0		0.0511	0.217	200	08/23/2017 03:57	WG1010895
trans-1,2-Dichloroethene	0.00508		0.000287	0.00109	1	08/22/2017 04:06	WG1010895
1,2-Dichloropropane	U		0.000389	0.00109	1	08/22/2017 04:06	WG1010895
1,1-Dichloropropene	U		0.000345	0.00109	1	08/22/2017 04:06	WG1010895
1,3-Dichloropropane	U		0.000225	0.00109	1	08/22/2017 04:06	WG1010895
cis-1,3-Dichloropropene	U		0.000285	0.00109	1	08/22/2017 04:06	WG1010895
trans-1,3-Dichloropropene	U		0.000290	0.00109	1	08/22/2017 04:06	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000846	0.00272	1	08/22/2017 04:06	WG1010895
2,2-Dichloropropane	U		0.000303	0.00109	1	08/22/2017 04:06	WG1010895
Di-isopropyl ether	U		0.000270	0.00109	1	08/22/2017 04:06	WG1010895
Ethylbenzene	U		0.000323	0.00109	1	08/22/2017 04:06	WG1010895
Hexachloro-1,3-butadiene	U	JO	0.000372	0.00109	1	08/22/2017 04:06	WG1010895
2-Hexanone	U		0.00149	0.0109	1	08/22/2017 04:06	WG1010895
n-Hexane	0.000378	J	0.000315	0.0109	1	08/22/2017 04:06	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00275	0.0109	1	08/22/2017 04:06	WG1010895
Isopropylbenzene	U		0.000264	0.00109	1	08/22/2017 04:06	WG1010895
p-Isopropyltoluene	U		0.000222	0.00109	1	08/22/2017 04:06	WG1010895
2-Butanone (MEK)	U		0.00509	0.0109	1	08/22/2017 04:06	WG1010895
Methylene Chloride	U		0.00109	0.00543	1	08/22/2017 04:06	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00204	0.0109	1	08/22/2017 04:06	WG1010895
Methyl tert-butyl ether	U		0.000230	0.00109	1	08/22/2017 04:06	WG1010895
Naphthalene	U		0.00109	0.00543	1	08/22/2017 04:06	WG1010895
n-Propylbenzene	U		0.000224	0.00109	1	08/22/2017 04:06	WG1010895
Styrene	U		0.000254	0.00109	1	08/22/2017 04:06	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000287	0.00109	1	08/22/2017 04:06	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000397	0.00109	1	08/22/2017 04:06	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000397	0.00109	1	08/22/2017 04:06	WG1010895
Tetrachloroethene	5.17		0.0600	0.217	200	08/23/2017 03:57	WG1010895
Toluene	U		0.000472	0.00543	1	08/22/2017 04:06	WG1010895
1,2,3-Trichlorobenzene	U	JO	0.000333	0.00109	1	08/22/2017 04:06	WG1010895
1,2,4-Trichlorobenzene	U	JO	0.000422	0.00109	1	08/22/2017 04:06	WG1010895
1,1,1-Trichloroethane	U		0.000311	0.00109	1	08/22/2017 04:06	WG1010895
1,1,2-Trichloroethane	U		0.000301	0.00109	1	08/22/2017 04:06	WG1010895
Trichloroethene	0.0309		0.000303	0.00109	1	08/22/2017 04:06	WG1010895
Trichlorofluoromethane	U		0.000415	0.00543	1	08/22/2017 04:06	WG1010895
1,2,3-Trichloropropane	U		0.000805	0.00272	1	08/22/2017 04:06	WG1010895
1,2,4-Trimethylbenzene	U		0.000229	0.00109	1	08/22/2017 04:06	WG1010895
1,2,3-Trimethylbenzene	U		0.000312	0.00109	1	08/22/2017 04:06	WG1010895
1,3,5-Trimethylbenzene	U		0.000289	0.00109	1	08/22/2017 04:06	WG1010895
Vinyl acetate	U		0.00260	0.0109	1	08/22/2017 04:06	WG1010895
Vinyl chloride	0.323		0.0633	0.217	200	08/23/2017 03:57	WG1010895
Xylenes, Total	U		0.000759	0.00326	1	08/22/2017 04:06	WG1010895
(S) Toluene-d8	95.7			80.0-120		08/22/2017 04:06	WG1010895
(S) Toluene-d8	103			80.0-120		08/23/2017 03:57	WG1010895
(S) Dibromofluoromethane	114			74.0-131		08/22/2017 04:06	WG1010895
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 03:57	WG1010895
(S) 4-Bromofluorobenzene	110			64.0-132		08/22/2017 04:06	WG1010895
(S) 4-Bromofluorobenzene	103			64.0-132		08/23/2017 03:57	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/15/17 11:45

L929881

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	81.8		1	08/21/2017 09:20	WG1011913

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	38.9		2.08	6.12	50	08/22/2017 15:26	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	98.5			77.0-120		08/22/2017 15:26	WG1011634

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		2.45	12.2	200	08/22/2017 04:27	WG1010895
Acrylonitrile	U		0.438	2.45	200	08/22/2017 04:27	WG1010895
Benzene	U		0.0661	0.245	200	08/22/2017 04:27	WG1010895
Bromobenzene	U		0.0695	0.245	200	08/22/2017 04:27	WG1010895
Bromodichloromethane	U		0.0621	0.245	200	08/22/2017 04:27	WG1010895
Bromochloromethane	U		0.0954	1.22	200	08/22/2017 04:27	WG1010895
Bromoform	U		0.104	0.245	200	08/22/2017 04:27	WG1010895
Bromomethane	U		0.328	1.22	200	08/22/2017 04:27	WG1010895
n-Butylbenzene	U		0.0631	0.245	200	08/22/2017 04:27	WG1010895
sec-Butylbenzene	U		0.0492	0.245	200	08/22/2017 04:27	WG1010895
tert-Butylbenzene	U		0.0504	0.245	200	08/22/2017 04:27	WG1010895
Carbon disulfide	U		0.0541	0.245	200	08/22/2017 04:27	WG1010895
Carbon tetrachloride	U		0.0802	0.245	200	08/22/2017 04:27	WG1010895
Chlorobenzene	U		0.0519	0.245	200	08/22/2017 04:27	WG1010895
Chlorodibromomethane	U		0.0912	0.245	200	08/22/2017 04:27	WG1010895
Chloroethane	U		0.231	1.22	200	08/22/2017 04:27	WG1010895
Chloroform	U		0.0560	1.22	200	08/22/2017 04:27	WG1010895
Chloromethane	U		0.0917	0.612	200	08/22/2017 04:27	WG1010895
2-Chlorotoluene	U		0.0736	0.245	200	08/22/2017 04:27	WG1010895
4-Chlorotoluene	U		0.0587	0.245	200	08/22/2017 04:27	WG1010895
1,2-Dibromo-3-Chloropropane	U	<u>J3</u>	0.257	1.22	200	08/22/2017 04:27	WG1010895
1,2-Dibromoethane	U		0.0839	0.245	200	08/22/2017 04:27	WG1010895
Dibromomethane	U		0.0935	0.245	200	08/22/2017 04:27	WG1010895
1,2-Dichlorobenzene	U		0.0746	0.245	200	08/22/2017 04:27	WG1010895
1,3-Dichlorobenzene	U		0.0585	0.245	200	08/22/2017 04:27	WG1010895
1,4-Dichlorobenzene	U		0.0553	0.245	200	08/22/2017 04:27	WG1010895
Dichlorodifluoromethane	U		0.175	1.22	200	08/22/2017 04:27	WG1010895
1,1-Dichloroethane	U		0.0487	0.245	200	08/22/2017 04:27	WG1010895
1,2-Dichloroethane	U		0.0648	0.245	200	08/22/2017 04:27	WG1010895
1,1-Dichloroethene	U		0.0741	0.245	200	08/22/2017 04:27	WG1010895
cis-1,2-Dichloroethene	4.09		0.287	1.22	1000	08/23/2017 04:18	WG1010895
trans-1,2-Dichloroethene	U		0.0646	0.245	200	08/22/2017 04:27	WG1010895
1,2-Dichloropropane	U		0.0876	0.245	200	08/22/2017 04:27	WG1010895
1,1-Dichloropropene	U		0.0775	0.245	200	08/22/2017 04:27	WG1010895
1,3-Dichloropropane	U		0.0506	0.245	200	08/22/2017 04:27	WG1010895
cis-1,3-Dichloropropene	U		0.0641	0.245	200	08/22/2017 04:27	WG1010895
trans-1,3-Dichloropropene	U		0.0653	0.245	200	08/22/2017 04:27	WG1010895
trans-1,4-Dichloro-2-butene	U		0.191	0.612	200	08/22/2017 04:27	WG1010895
2,2-Dichloropropane	U		0.0683	0.245	200	08/22/2017 04:27	WG1010895
Di-isopropyl ether	U		0.0607	0.245	200	08/22/2017 04:27	WG1010895
Ethylbenzene	U		0.0727	0.245	200	08/22/2017 04:27	WG1010895
Hexachloro-1,3-butadiene	U	<u>JO</u>	0.0837	0.245	200	08/22/2017 04:27	WG1010895
2-Hexanone	U		0.335	2.45	200	08/22/2017 04:27	WG1010895
n-Hexane	U		0.0709	2.45	200	08/22/2017 04:27	WG1010895

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.619	2.45	200	08/22/2017 04:27	WG1010895
Isopropylbenzene	U		0.0594	0.245	200	08/22/2017 04:27	WG1010895
p-Isopropyltoluene	0.0804	J	0.0499	0.245	200	08/22/2017 04:27	WG1010895
2-Butanone (MEK)	U		1.14	2.45	200	08/22/2017 04:27	WG1010895
Methylene Chloride	U		0.245	1.22	200	08/22/2017 04:27	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.460	2.45	200	08/22/2017 04:27	WG1010895
Methyl tert-butyl ether	0.0801	J	0.0519	0.245	200	08/22/2017 04:27	WG1010895
Naphthalene	U		0.245	1.22	200	08/22/2017 04:27	WG1010895
n-Propylbenzene	U		0.0504	0.245	200	08/22/2017 04:27	WG1010895
Styrene	U		0.0572	0.245	200	08/22/2017 04:27	WG1010895
1,1,1,2-Tetrachloroethane	U		0.0646	0.245	200	08/22/2017 04:27	WG1010895
1,1,2,2-Tetrachloroethane	U		0.0893	0.245	200	08/22/2017 04:27	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.0893	0.245	200	08/22/2017 04:27	WG1010895
Tetrachloroethene	114		3.38	12.2	10000	08/23/2017 15:19	WG1010895
Toluene	U		0.106	1.22	200	08/22/2017 04:27	WG1010895
1,2,3-Trichlorobenzene	U	JO	0.0749	0.245	200	08/22/2017 04:27	WG1010895
1,2,4-Trichlorobenzene	U	JO	0.0949	0.245	200	08/22/2017 04:27	WG1010895
1,1,1-Trichloroethane	U		0.0700	0.245	200	08/22/2017 04:27	WG1010895
1,1,2-Trichloroethane	U		0.0678	0.245	200	08/22/2017 04:27	WG1010895
Trichloroethene	0.988		0.0683	0.245	200	08/22/2017 04:27	WG1010895
Trichlorofluoromethane	U		0.0935	1.22	200	08/22/2017 04:27	WG1010895
1,2,3-Trichloropropane	U		0.181	0.612	200	08/22/2017 04:27	WG1010895
1,2,4-Trimethylbenzene	U		0.0516	0.245	200	08/22/2017 04:27	WG1010895
1,2,3-Trimethylbenzene	U		0.0702	0.245	200	08/22/2017 04:27	WG1010895
1,3,5-Trimethylbenzene	U		0.0651	0.245	200	08/22/2017 04:27	WG1010895
Vinyl acetate	U		0.585	2.45	200	08/22/2017 04:27	WG1010895
Vinyl chloride	U		0.0712	0.245	200	08/22/2017 04:27	WG1010895
Xylenes, Total	U		0.171	0.734	200	08/22/2017 04:27	WG1010895
(S) Toluene-d8	97.9			80.0-120		08/22/2017 04:27	WG1010895
(S) Toluene-d8	103			80.0-120		08/23/2017 15:19	WG1010895
(S) Toluene-d8	101			80.0-120		08/23/2017 04:18	WG1010895
(S) Dibromofluoromethane	103			74.0-131		08/23/2017 04:18	WG1010895
(S) Dibromofluoromethane	95.8			74.0-131		08/23/2017 15:19	WG1010895
(S) Dibromofluoromethane	110			74.0-131		08/22/2017 04:27	WG1010895
(S) 4-Bromofluorobenzene	104			64.0-132		08/23/2017 04:18	WG1010895
(S) 4-Bromofluorobenzene	100			64.0-132		08/23/2017 15:19	WG1010895
(S) 4-Bromofluorobenzene	104			64.0-132		08/22/2017 04:27	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.6		1	08/21/2017 09:20	WG1011913

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	387		20.1	59.1	500	08/22/2017 15:49	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-120		08/22/2017 15:49	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		59.1	296	5000	08/22/2017 04:48	WG1010895
Acrylonitrile	U		10.6	59.1	5000	08/22/2017 04:48	WG1010895
Benzene	U		1.60	5.91	5000	08/22/2017 04:48	WG1010895
Bromobenzene	U		1.68	5.91	5000	08/22/2017 04:48	WG1010895
Bromodichloromethane	U		1.50	5.91	5000	08/22/2017 04:48	WG1010895
Bromochloromethane	U		2.31	29.6	5000	08/22/2017 04:48	WG1010895
Bromoform	U		2.51	5.91	5000	08/22/2017 04:48	WG1010895
Bromomethane	U		7.92	29.6	5000	08/22/2017 04:48	WG1010895
n-Butylbenzene	U		1.53	5.91	5000	08/22/2017 04:48	WG1010895
sec-Butylbenzene	U		1.18	5.91	5000	08/22/2017 04:48	WG1010895
tert-Butylbenzene	U		1.22	5.91	5000	08/22/2017 04:48	WG1010895
Carbon disulfide	U		1.30	5.91	5000	08/22/2017 04:48	WG1010895
Carbon tetrachloride	U		1.94	5.91	5000	08/22/2017 04:48	WG1010895
Chlorobenzene	U		1.25	5.91	5000	08/22/2017 04:48	WG1010895
Chlorodibromomethane	U		2.20	5.91	5000	08/22/2017 04:48	WG1010895
Chloroethane	U		5.59	29.6	5000	08/22/2017 04:48	WG1010895
Chloroform	U		1.35	29.6	5000	08/22/2017 04:48	WG1010895
Chloromethane	U		2.22	14.8	5000	08/22/2017 04:48	WG1010895
2-Chlorotoluene	U		1.77	5.91	5000	08/22/2017 04:48	WG1010895
4-Chlorotoluene	U		1.42	5.91	5000	08/22/2017 04:48	WG1010895
1,2-Dibromo-3-Chloropropane	U	<u>J3</u>	6.21	29.6	5000	08/22/2017 04:48	WG1010895
1,2-Dibromoethane	U		2.03	5.91	5000	08/22/2017 04:48	WG1010895
Dibromomethane	U		2.26	5.91	5000	08/22/2017 04:48	WG1010895
1,2-Dichlorobenzene	U		1.80	5.91	5000	08/22/2017 04:48	WG1010895
1,3-Dichlorobenzene	U		1.42	5.91	5000	08/22/2017 04:48	WG1010895
1,4-Dichlorobenzene	U		1.34	5.91	5000	08/22/2017 04:48	WG1010895
Dichlorodifluoromethane	U		4.21	29.6	5000	08/22/2017 04:48	WG1010895
1,1-Dichloroethane	U		1.18	5.91	5000	08/22/2017 04:48	WG1010895
1,2-Dichloroethane	U		1.56	5.91	5000	08/22/2017 04:48	WG1010895
1,1-Dichloroethene	U		1.80	5.91	5000	08/22/2017 04:48	WG1010895
cis-1,2-Dichloroethene	U		1.40	5.91	5000	08/23/2017 04:41	WG1010895
trans-1,2-Dichloroethene	U		1.56	5.91	5000	08/22/2017 04:48	WG1010895
1,2-Dichloropropane	U		2.12	5.91	5000	08/22/2017 04:48	WG1010895
1,1-Dichloropropene	U		1.87	5.91	5000	08/22/2017 04:48	WG1010895
1,3-Dichloropropane	U		1.23	5.91	5000	08/22/2017 04:48	WG1010895
cis-1,3-Dichloropropene	U		1.55	5.91	5000	08/22/2017 04:48	WG1010895
trans-1,3-Dichloropropene	U		1.58	5.91	5000	08/22/2017 04:48	WG1010895
trans-1,4-Dichloro-2-butene	U		4.60	14.8	5000	08/22/2017 04:48	WG1010895
2,2-Dichloropropane	U		1.66	5.91	5000	08/22/2017 04:48	WG1010895
Di-isopropyl ether	U		1.47	5.91	5000	08/22/2017 04:48	WG1010895
Ethylbenzene	U		1.75	5.91	5000	08/22/2017 04:48	WG1010895
Hexachloro-1,3-butadiene	U	<u>JO</u>	2.02	5.91	5000	08/22/2017 04:48	WG1010895
2-Hexanone	U		8.10	59.1	5000	08/22/2017 04:48	WG1010895
n-Hexane	U		1.71	59.1	5000	08/22/2017 04:48	WG1010895



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		14.9	59.1	5000	08/22/2017 04:48	WG1010895
Isopropylbenzene	U		1.44	5.91	5000	08/22/2017 04:48	WG1010895
p-Isopropyltoluene	U		1.21	5.91	5000	08/22/2017 04:48	WG1010895
2-Butanone (MEK)	U		27.7	59.1	5000	08/22/2017 04:48	WG1010895
Methylene Chloride	U		5.91	29.6	5000	08/22/2017 04:48	WG1010895
4-Methyl-2-pentanone (MIBK)	U		11.1	59.1	5000	08/22/2017 04:48	WG1010895
Methyl tert-butyl ether	U		1.25	5.91	5000	08/22/2017 04:48	WG1010895
Naphthalene	U		5.91	29.6	5000	08/22/2017 04:48	WG1010895
n-Propylbenzene	U		1.22	5.91	5000	08/22/2017 04:48	WG1010895
Styrene	U		1.38	5.91	5000	08/22/2017 04:48	WG1010895
1,1,1,2-Tetrachloroethane	U		1.56	5.91	5000	08/22/2017 04:48	WG1010895
1,1,2,2-Tetrachloroethane	U		2.15	5.91	5000	08/22/2017 04:48	WG1010895
1,1,2-Trichlorotrifluoroethane	U		2.15	5.91	5000	08/22/2017 04:48	WG1010895
Tetrachloroethene	691		1.63	5.91	5000	08/22/2017 04:48	WG1010895
Toluene	U		2.57	29.6	5000	08/22/2017 04:48	WG1010895
1,2,3-Trichlorobenzene	U	JO	1.81	5.91	5000	08/22/2017 04:48	WG1010895
1,2,4-Trichlorobenzene	U	JO	2.29	5.91	5000	08/22/2017 04:48	WG1010895
1,1,1-Trichloroethane	U		1.69	5.91	5000	08/22/2017 04:48	WG1010895
1,1,2-Trichloroethane	U		1.63	5.91	5000	08/22/2017 04:48	WG1010895
Trichloroethene	U		1.66	5.91	5000	08/22/2017 04:48	WG1010895
Trichlorofluoromethane	U		2.26	29.6	5000	08/22/2017 04:48	WG1010895
1,2,3-Trichloropropane	U		4.38	14.8	5000	08/22/2017 04:48	WG1010895
1,2,4-Trimethylbenzene	U		1.25	5.91	5000	08/22/2017 04:48	WG1010895
1,2,3-Trimethylbenzene	U		1.70	5.91	5000	08/22/2017 04:48	WG1010895
1,3,5-Trimethylbenzene	U		1.57	5.91	5000	08/22/2017 04:48	WG1010895
Vinyl acetate	U		14.2	59.1	5000	08/22/2017 04:48	WG1010895
Vinyl chloride	U		1.73	5.91	5000	08/22/2017 04:48	WG1010895
Xylenes, Total	U		4.13	17.7	5000	08/22/2017 04:48	WG1010895
(S) Toluene-d8	101			80.0-120		08/23/2017 04:41	WG1010895
(S) Toluene-d8	103			80.0-120		08/22/2017 04:48	WG1010895
(S) Dibromofluoromethane	109			74.0-131		08/22/2017 04:48	WG1010895
(S) Dibromofluoromethane	107			74.0-131		08/23/2017 04:41	WG1010895
(S) 4-Bromofluorobenzene	103			64.0-132		08/22/2017 04:48	WG1010895
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 04:41	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.4		1	08/21/2017 09:20	WG1011913

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	7.21		0.0392	0.116	1	08/19/2017 19:38	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	97.4			77.0-120		08/19/2017 19:38	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0188	J	0.0116	0.0579	1	08/22/2017 05:08	WG1010895
Acrylonitrile	U		0.00207	0.0116	1	08/22/2017 05:08	WG1010895
Benzene	U		0.000313	0.00116	1	08/22/2017 05:08	WG1010895
Bromobenzene	U		0.000329	0.00116	1	08/22/2017 05:08	WG1010895
Bromodichloromethane	U		0.000294	0.00116	1	08/22/2017 05:08	WG1010895
Bromochloromethane	U		0.000451	0.00579	1	08/22/2017 05:08	WG1010895
Bromoform	U		0.000491	0.00116	1	08/22/2017 05:08	WG1010895
Bromomethane	U		0.00155	0.00579	1	08/22/2017 05:08	WG1010895
n-Butylbenzene	U		0.000299	0.00116	1	08/22/2017 05:08	WG1010895
sec-Butylbenzene	U		0.000233	0.00116	1	08/22/2017 05:08	WG1010895
tert-Butylbenzene	U		0.000238	0.00116	1	08/22/2017 05:08	WG1010895
Carbon disulfide	0.00554		0.000256	0.00116	1	08/22/2017 05:08	WG1010895
Carbon tetrachloride	U		0.000380	0.00116	1	08/22/2017 05:08	WG1010895
Chlorobenzene	U		0.000245	0.00116	1	08/22/2017 05:08	WG1010895
Chlorodibromomethane	U		0.000432	0.00116	1	08/22/2017 05:08	WG1010895
Chloroethane	U		0.00109	0.00579	1	08/22/2017 05:08	WG1010895
Chloroform	U		0.000265	0.00579	1	08/22/2017 05:08	WG1010895
Chloromethane	U		0.000434	0.00289	1	08/22/2017 05:08	WG1010895
2-Chlorotoluene	U		0.000348	0.00116	1	08/22/2017 05:08	WG1010895
4-Chlorotoluene	U		0.000278	0.00116	1	08/22/2017 05:08	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00122	0.00579	1	08/22/2017 05:08	WG1010895
1,2-Dibromoethane	U		0.000397	0.00116	1	08/22/2017 05:08	WG1010895
Dibromomethane	U		0.000442	0.00116	1	08/22/2017 05:08	WG1010895
1,2-Dichlorobenzene	U		0.000353	0.00116	1	08/22/2017 05:08	WG1010895
1,3-Dichlorobenzene	U		0.000277	0.00116	1	08/22/2017 05:08	WG1010895
1,4-Dichlorobenzene	U		0.000262	0.00116	1	08/22/2017 05:08	WG1010895
Dichlorodifluoromethane	U		0.000825	0.00579	1	08/22/2017 05:08	WG1010895
1,1-Dichloroethane	U		0.000230	0.00116	1	08/22/2017 05:08	WG1010895
1,2-Dichloroethane	U		0.000307	0.00116	1	08/22/2017 05:08	WG1010895
1,1-Dichloroethene	0.00832		0.000351	0.00116	1	08/22/2017 05:08	WG1010895
cis-1,2-Dichloroethene	1.41		0.0681	0.289	250	08/23/2017 05:02	WG1010895
trans-1,2-Dichloroethene	0.00123		0.000306	0.00116	1	08/22/2017 05:08	WG1010895
1,2-Dichloropropane	U		0.000414	0.00116	1	08/22/2017 05:08	WG1010895
1,1-Dichloropropene	U		0.000367	0.00116	1	08/22/2017 05:08	WG1010895
1,3-Dichloropropane	U		0.000240	0.00116	1	08/22/2017 05:08	WG1010895
cis-1,3-Dichloropropene	U		0.000303	0.00116	1	08/22/2017 05:08	WG1010895
trans-1,3-Dichloropropene	U		0.000309	0.00116	1	08/22/2017 05:08	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000901	0.00289	1	08/22/2017 05:08	WG1010895
2,2-Dichloropropane	U		0.000323	0.00116	1	08/22/2017 05:08	WG1010895
Di-isopropyl ether	U		0.000287	0.00116	1	08/22/2017 05:08	WG1010895
Ethylbenzene	U		0.000344	0.00116	1	08/22/2017 05:08	WG1010895
Hexachloro-1,3-butadiene	U	JO	0.000396	0.00116	1	08/22/2017 05:08	WG1010895
2-Hexanone	U		0.00159	0.0116	1	08/22/2017 05:08	WG1010895
n-Hexane	0.000897	J	0.000336	0.0116	1	08/22/2017 05:08	WG1010895



Collected date/time: 08/15/17 14:00

L929881

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00293	0.0116	1	08/22/2017 05:08	WG1010895
Isopropylbenzene	U		0.000281	0.00116	1	08/22/2017 05:08	WG1010895
p-Isopropyltoluene	U		0.000236	0.00116	1	08/22/2017 05:08	WG1010895
2-Butanone (MEK)	U		0.00542	0.0116	1	08/22/2017 05:08	WG1010895
Methylene Chloride	U		0.00116	0.00579	1	08/22/2017 05:08	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00218	0.0116	1	08/22/2017 05:08	WG1010895
Methyl tert-butyl ether	U		0.000245	0.00116	1	08/22/2017 05:08	WG1010895
Naphthalene	U		0.00116	0.00579	1	08/22/2017 05:08	WG1010895
n-Propylbenzene	U		0.000238	0.00116	1	08/22/2017 05:08	WG1010895
Styrene	U		0.000271	0.00116	1	08/22/2017 05:08	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000306	0.00116	1	08/22/2017 05:08	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000422	0.00116	1	08/22/2017 05:08	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000422	0.00116	1	08/22/2017 05:08	WG1010895
Tetrachloroethene	36.0		0.0799	0.289	250	08/23/2017 05:02	WG1010895
Toluene	U		0.000502	0.00579	1	08/22/2017 05:08	WG1010895
1,2,3-Trichlorobenzene	U	JO	0.000354	0.00116	1	08/22/2017 05:08	WG1010895
1,2,4-Trichlorobenzene	U	JO	0.000449	0.00116	1	08/22/2017 05:08	WG1010895
1,1,1-Trichloroethane	U		0.000331	0.00116	1	08/22/2017 05:08	WG1010895
1,1,2-Trichloroethane	U		0.000321	0.00116	1	08/22/2017 05:08	WG1010895
Trichloroethene	2.96		0.0808	0.289	250	08/23/2017 05:02	WG1010895
Trichlorofluoromethane	U		0.000442	0.00579	1	08/22/2017 05:08	WG1010895
1,2,3-Trichloropropane	U		0.000858	0.00289	1	08/22/2017 05:08	WG1010895
1,2,4-Trimethylbenzene	U		0.000244	0.00116	1	08/22/2017 05:08	WG1010895
1,2,3-Trimethylbenzene	U		0.000332	0.00116	1	08/22/2017 05:08	WG1010895
1,3,5-Trimethylbenzene	U		0.000308	0.00116	1	08/22/2017 05:08	WG1010895
Vinyl acetate	U		0.00277	0.0116	1	08/22/2017 05:08	WG1010895
Vinyl chloride	0.00631		0.000337	0.00116	1	08/22/2017 05:08	WG1010895
Xylenes, Total	U		0.000808	0.00347	1	08/22/2017 05:08	WG1010895
(S) Toluene-d8	98.8			80.0-120		08/23/2017 05:02	WG1010895
(S) Toluene-d8	93.1			80.0-120		08/22/2017 05:08	WG1010895
(S) Dibromofluoromethane	112			74.0-131		08/22/2017 05:08	WG1010895
(S) Dibromofluoromethane	105			74.0-131		08/23/2017 05:02	WG1010895
(S) 4-Bromofluorobenzene	109			64.0-132		08/22/2017 05:08	WG1010895
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 05:02	WG1010895

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	2990		31.6	100	1	08/20/2017 22:48	WG1011763
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-122		08/20/2017 22:48	WG1011763

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	6.79	J JO J3	1.05	25.0	1	08/18/2017 03:30	WG1010972
Acrylonitrile	U		0.873	5.00	1	08/18/2017 03:30	WG1010972
Benzene	0.808		0.0896	0.500	1	08/18/2017 03:30	WG1010972
Bromobenzene	U		0.133	0.500	1	08/18/2017 03:30	WG1010972
Bromodichloromethane	U		0.0800	0.500	1	08/18/2017 03:30	WG1010972
Bromochloromethane	U		0.145	0.500	1	08/18/2017 03:30	WG1010972
Bromoform	U		0.186	0.500	1	08/18/2017 03:30	WG1010972
Bromomethane	U		0.157	2.50	1	08/18/2017 03:30	WG1010972
n-Butylbenzene	U		0.143	0.500	1	08/18/2017 03:30	WG1010972
sec-Butylbenzene	U		0.134	0.500	1	08/18/2017 03:30	WG1010972
tert-Butylbenzene	U		0.183	0.500	1	08/18/2017 03:30	WG1010972
Carbon disulfide	U		0.101	0.500	1	08/18/2017 03:30	WG1010972
Carbon tetrachloride	U		0.159	0.500	1	08/18/2017 03:30	WG1010972
Chlorobenzene	U		0.140	0.500	1	08/18/2017 03:30	WG1010972
Chlorodibromomethane	U		0.128	0.500	1	08/18/2017 03:30	WG1010972
Chloroethane	U		0.141	2.50	1	08/18/2017 03:30	WG1010972
Chloroform	U		0.0860	0.500	1	08/18/2017 03:30	WG1010972
Chloromethane	U		0.153	1.25	1	08/18/2017 03:30	WG1010972
2-Chlorotoluene	U		0.111	0.500	1	08/18/2017 03:30	WG1010972
4-Chlorotoluene	U		0.0972	0.500	1	08/18/2017 03:30	WG1010972
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/18/2017 03:30	WG1010972
1,2-Dibromoethane	U		0.193	0.500	1	08/18/2017 03:30	WG1010972
Dibromomethane	U		0.117	0.500	1	08/18/2017 03:30	WG1010972
1,2-Dichlorobenzene	U		0.101	0.500	1	08/18/2017 03:30	WG1010972
1,3-Dichlorobenzene	U		0.130	0.500	1	08/18/2017 03:30	WG1010972
1,4-Dichlorobenzene	U		0.121	0.500	1	08/18/2017 03:30	WG1010972
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/18/2017 03:30	WG1010972
1,1-Dichloroethane	0.274	J	0.114	0.500	1	08/18/2017 03:30	WG1010972
1,2-Dichloroethane	U		0.108	0.500	1	08/18/2017 03:30	WG1010972
1,1-Dichloroethene	37.2		0.188	0.500	1	08/18/2017 03:30	WG1010972
cis-1,2-Dichloroethene	182		18.7	100	200	08/22/2017 03:34	WG1010972
trans-1,2-Dichloroethene	3.00		0.152	0.500	1	08/18/2017 03:30	WG1010972
1,2-Dichloropropane	U		0.190	0.500	1	08/18/2017 03:30	WG1010972
1,1-Dichloropropene	U		0.128	0.500	1	08/18/2017 03:30	WG1010972
1,3-Dichloropropane	U		0.147	1.00	1	08/18/2017 03:30	WG1010972
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/18/2017 03:30	WG1010972
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/18/2017 03:30	WG1010972
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/18/2017 03:30	WG1010972
2,2-Dichloropropane	U		0.0929	0.500	1	08/18/2017 03:30	WG1010972
Di-isopropyl ether	U		0.0924	0.500	1	08/18/2017 03:30	WG1010972
Ethylbenzene	0.228	J	0.158	0.500	1	08/18/2017 03:30	WG1010972
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/18/2017 03:30	WG1010972
2-Hexanone	U		0.757	5.00	1	08/18/2017 03:30	WG1010972
n-Hexane	1.24	J	0.305	5.00	1	08/18/2017 03:30	WG1010972
Iodomethane	U		0.377	10.0	1	08/18/2017 03:30	WG1010972
Isopropylbenzene	U		0.126	0.500	1	08/18/2017 03:30	WG1010972
p-Isopropyltoluene	U		0.138	0.500	1	08/18/2017 03:30	WG1010972
2-Butanone (MEK)	2.20	J JO	1.28	5.00	1	08/18/2017 03:30	WG1010972



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	08/18/2017 03:30	WG1010972
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/18/2017 03:30	WG1010972
Methyl tert-butyl ether	U		0.102	0.500	1	08/18/2017 03:30	WG1010972
Naphthalene	0.401	U	0.174	2.50	1	08/18/2017 03:30	WG1010972
n-Propylbenzene	U		0.162	0.500	1	08/18/2017 03:30	WG1010972
Styrene	U		0.117	0.500	1	08/18/2017 03:30	WG1010972
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/18/2017 03:30	WG1010972
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/18/2017 03:30	WG1010972
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/18/2017 03:30	WG1010972
Tetrachloroethene	6690		39.8	100	200	08/22/2017 03:34	WG1010972
Toluene	774		82.4	100	200	08/22/2017 03:34	WG1010972
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/18/2017 03:30	WG1010972
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/18/2017 03:30	WG1010972
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/18/2017 03:30	WG1010972
1,1,2-Trichloroethane	U		0.186	0.500	1	08/18/2017 03:30	WG1010972
Trichloroethene	797		30.6	100	200	08/22/2017 03:34	WG1010972
Trichlorofluoromethane	U		0.130	2.50	1	08/18/2017 03:30	WG1010972
1,2,3-Trichloropropane	U		0.247	2.50	1	08/18/2017 03:30	WG1010972
1,2,4-Trimethylbenzene	0.151	U	0.123	0.500	1	08/18/2017 03:30	WG1010972
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/18/2017 03:30	WG1010972
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/18/2017 03:30	WG1010972
Vinyl acetate	U		0.645	5.00	1	08/18/2017 03:30	WG1010972
Vinyl chloride	46.2		0.118	0.500	1	08/18/2017 03:30	WG1010972
Xylenes, Total	0.708	U	0.316	1.50	1	08/18/2017 03:30	WG1010972
(S) Toluene-d8	116			80.0-120		08/18/2017 03:30	WG1010972
(S) Toluene-d8	108			80.0-120		08/22/2017 03:34	WG1010972
(S) Dibromofluoromethane	88.7			76.0-123		08/22/2017 03:34	WG1010972
(S) Dibromofluoromethane	98.6			76.0-123		08/18/2017 03:30	WG1010972
(S) 4-Bromofluorobenzene	101			80.0-120		08/22/2017 03:34	WG1010972
(S) 4-Bromofluorobenzene	106			80.0-120		08/18/2017 03:30	WG1010972

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.0		1	08/21/2017 09:45	WG1011920

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0394	0.116	1	08/19/2017 20:00	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	95.9			77.0-120		08/19/2017 20:00	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0116	0.0582	1	08/19/2017 01:12	WG1011219
Acrylonitrile	U		0.00208	0.0116	1	08/19/2017 01:12	WG1011219
Benzene	U		0.000314	0.00116	1	08/19/2017 01:12	WG1011219
Bromobenzene	U		0.000330	0.00116	1	08/19/2017 01:12	WG1011219
Bromodichloromethane	U		0.000295	0.00116	1	08/19/2017 01:12	WG1011219
Bromochloromethane	U		0.000454	0.00582	1	08/19/2017 01:12	WG1011219
Bromoform	U		0.000493	0.00116	1	08/19/2017 01:12	WG1011219
Bromomethane	U	<u>JO</u>	0.00156	0.00582	1	08/19/2017 01:12	WG1011219
n-Butylbenzene	U		0.000300	0.00116	1	08/19/2017 01:12	WG1011219
sec-Butylbenzene	U		0.000234	0.00116	1	08/19/2017 01:12	WG1011219
tert-Butylbenzene	U		0.000240	0.00116	1	08/19/2017 01:12	WG1011219
Carbon disulfide	0.000728	<u>J</u>	0.000257	0.00116	1	08/19/2017 01:12	WG1011219
Carbon tetrachloride	U		0.000382	0.00116	1	08/19/2017 01:12	WG1011219
Chlorobenzene	U		0.000247	0.00116	1	08/19/2017 01:12	WG1011219
Chlorodibromomethane	U		0.000434	0.00116	1	08/19/2017 01:12	WG1011219
Chloroethane	U		0.00110	0.00582	1	08/19/2017 01:12	WG1011219
Chloroform	U		0.000266	0.00582	1	08/19/2017 01:12	WG1011219
Chloromethane	U		0.000436	0.00291	1	08/19/2017 01:12	WG1011219
2-Chlorotoluene	U		0.000350	0.00116	1	08/19/2017 01:12	WG1011219
4-Chlorotoluene	U		0.000279	0.00116	1	08/19/2017 01:12	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00122	0.00582	1	08/19/2017 01:12	WG1011219
1,2-Dibromoethane	U		0.000399	0.00116	1	08/19/2017 01:12	WG1011219
Dibromomethane	U		0.000444	0.00116	1	08/19/2017 01:12	WG1011219
1,2-Dichlorobenzene	U		0.000355	0.00116	1	08/19/2017 01:12	WG1011219
1,3-Dichlorobenzene	U		0.000278	0.00116	1	08/19/2017 01:12	WG1011219
1,4-Dichlorobenzene	U		0.000263	0.00116	1	08/19/2017 01:12	WG1011219
Dichlorodifluoromethane	U		0.000829	0.00582	1	08/19/2017 01:12	WG1011219
1,1-Dichloroethane	U		0.000232	0.00116	1	08/19/2017 01:12	WG1011219
1,2-Dichloroethane	U		0.000308	0.00116	1	08/19/2017 01:12	WG1011219
1,1-Dichloroethene	U		0.000352	0.00116	1	08/19/2017 01:12	WG1011219
cis-1,2-Dichloroethene	0.00191		0.000273	0.00116	1	08/19/2017 01:12	WG1011219
trans-1,2-Dichloroethene	U		0.000307	0.00116	1	08/19/2017 01:12	WG1011219
1,2-Dichloropropane	U		0.000416	0.00116	1	08/19/2017 01:12	WG1011219
1,1-Dichloropropene	U		0.000369	0.00116	1	08/19/2017 01:12	WG1011219
1,3-Dichloropropane	U		0.000241	0.00116	1	08/19/2017 01:12	WG1011219
cis-1,3-Dichloropropene	U		0.000305	0.00116	1	08/19/2017 01:12	WG1011219
trans-1,3-Dichloropropene	U		0.000311	0.00116	1	08/19/2017 01:12	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000905	0.00291	1	08/19/2017 01:12	WG1011219
2,2-Dichloropropane	U	<u>JO</u>	0.000325	0.00116	1	08/19/2017 01:12	WG1011219
Di-isopropyl ether	U		0.000289	0.00116	1	08/19/2017 01:12	WG1011219
Ethylbenzene	U		0.000346	0.00116	1	08/19/2017 01:12	WG1011219
Hexachloro-1,3-butadiene	U		0.000398	0.00116	1	08/19/2017 01:12	WG1011219
2-Hexanone	U		0.00159	0.0116	1	08/19/2017 01:12	WG1011219
n-Hexane	U		0.000337	0.0116	1	08/19/2017 01:12	WG1011219



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00294	0.0116	1	08/19/2017 01:12	WG1011219
Isopropylbenzene	U		0.000283	0.00116	1	08/19/2017 01:12	WG1011219
p-Isopropyltoluene	U		0.000237	0.00116	1	08/19/2017 01:12	WG1011219
2-Butanone (MEK)	U		0.00544	0.0116	1	08/19/2017 01:12	WG1011219
Methylene Chloride	U		0.00116	0.00582	1	08/19/2017 01:12	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00219	0.0116	1	08/19/2017 01:12	WG1011219
Methyl tert-butyl ether	U		0.000247	0.00116	1	08/19/2017 01:12	WG1011219
Naphthalene	U		0.00116	0.00582	1	08/19/2017 01:12	WG1011219
n-Propylbenzene	U		0.000240	0.00116	1	08/19/2017 01:12	WG1011219
Styrene	U		0.000272	0.00116	1	08/19/2017 01:12	WG1011219
1,1,1-Tetrachloroethane	U		0.000307	0.00116	1	08/19/2017 01:12	WG1011219
1,1,2-Tetrachloroethane	U		0.000425	0.00116	1	08/19/2017 01:12	WG1011219
1,1,2-Trichlorotrifluoroethane	U	<u>JO</u>	0.000425	0.00116	1	08/19/2017 01:12	WG1011219
Tetrachloroethene	0.0468	<u>JO J4</u>	0.000321	0.00116	1	08/19/2017 01:12	WG1011219
Toluene	U		0.000505	0.00582	1	08/19/2017 01:12	WG1011219
1,2,3-Trichlorobenzene	U		0.000356	0.00116	1	08/19/2017 01:12	WG1011219
1,2,4-Trichlorobenzene	U		0.000451	0.00116	1	08/19/2017 01:12	WG1011219
1,1,1-Trichloroethane	U		0.000333	0.00116	1	08/19/2017 01:12	WG1011219
1,1,2-Trichloroethane	U		0.000322	0.00116	1	08/19/2017 01:12	WG1011219
Trichloroethene	0.000647	<u>J</u>	0.000325	0.00116	1	08/19/2017 01:12	WG1011219
Trichlorofluoromethane	U		0.000444	0.00582	1	08/19/2017 01:12	WG1011219
1,2,3-Trichloropropane	U		0.000862	0.00291	1	08/19/2017 01:12	WG1011219
1,2,4-Trimethylbenzene	U		0.000245	0.00116	1	08/19/2017 01:12	WG1011219
1,2,3-Trimethylbenzene	U		0.000334	0.00116	1	08/19/2017 01:12	WG1011219
1,3,5-Trimethylbenzene	U		0.000309	0.00116	1	08/19/2017 01:12	WG1011219
Vinyl acetate	U		0.00278	0.0116	1	08/19/2017 01:12	WG1011219
Vinyl chloride	U		0.000339	0.00116	1	08/19/2017 01:12	WG1011219
Xylenes, Total	U		0.000812	0.00349	1	08/19/2017 01:12	WG1011219
(S) Toluene-d8	112			80.0-120		08/19/2017 01:12	WG1011219
(S) Dibromofluoromethane	105			74.0-131		08/19/2017 01:12	WG1011219
(S) 4-Bromofluorobenzene	103			64.0-132		08/19/2017 01:12	WG1011219

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3243178-1 08/21/17 09:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000300			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L930007-06 Original Sample (OS) • Duplicate (DUP)

(OS) L930007-06 08/21/17 09:43 • (DUP) R3243178-3 08/21/17 09:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	81.3	82.0	1	0.889		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3243178-2 08/21/17 09:43

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3243133-1 08/21/17 09:20

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000600			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L929881-04 Original Sample (OS) • Duplicate (DUP)

(OS) L929881-04 08/21/17 09:20 • (DUP) R3243133-3 08/21/17 09:20

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	81.8	80.8	1	1.19		5

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3243133-2 08/21/17 09:20

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3243181-1 08/21/17 09:45

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.000300			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L929943-12 Original Sample (OS) • Duplicate (DUP)

(OS) L929943-12 08/21/17 09:45 • (DUP) R3243181-3 08/21/17 09:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	86.6	84.7	1	2.21		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3243181-2 08/21/17 09:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3243091-3 08/19/17 18:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	98.0			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243091-1 08/19/17 17:14 • (LCSD) R3243091-2 08/19/17 17:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	6.04	6.28	110	114	70.0-133			3.88	20
(S) a,a,a-Trifluorotoluene(FID)				105	106	77.0-120				



Method Blank (MB)

(MB) R3243205-3 08/20/17 14:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	99.1			77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243205-1 08/20/17 13:17 • (LCSD) R3243205-2 08/20/17 13:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5950	6040	108	110	72.0-134			1.57	20
(S) a,a,a-Trifluorotoluene(FID)				105	106	77.0-122				

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3243220-3 08/22/17 00:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3243220-3 08/22/17 00:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	U		0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	109			74.0-131
(S) 4-Bromofluorobenzene	106			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243220-1 08/21/17 23:10 • (LCSD) R3243220-2 08/21/17 23:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	0.147	0.158	117	126	11.0-160			7.22	23
Acrylonitrile	0.125	0.148	0.160	118	128	61.0-143			8.08	20
Benzene	0.0250	0.0273	0.0275	109	110	71.0-124			0.860	20
Bromobenzene	0.0250	0.0280	0.0290	112	116	78.0-120			3.27	20
Bromodichloromethane	0.0250	0.0266	0.0267	106	107	75.0-120			0.430	20
Bromochloromethane	0.0250	0.0272	0.0274	109	110	80.0-121			0.550	20
Bromoform	0.0250	0.0290	0.0316	116	126	65.0-133			8.35	20
Bromomethane	0.0250	0.0253	0.0257	101	103	26.0-160			1.32	20
n-Butylbenzene	0.0250	0.0226	0.0234	90.3	93.8	73.0-126			3.72	20
sec-Butylbenzene	0.0250	0.0255	0.0263	102	105	75.0-121			3.25	20
tert-Butylbenzene	0.0250	0.0260	0.0270	104	108	74.0-122			3.77	20
Carbon disulfide	0.0250	0.0290	0.0294	116	117	53.0-130			1.41	20
Carbon tetrachloride	0.0250	0.0261	0.0264	104	106	66.0-123			1.37	20
Chlorobenzene	0.0250	0.0245	0.0251	98.0	100	79.0-121			2.25	20
Chlorodibromomethane	0.0250	0.0255	0.0277	102	111	74.0-128			8.30	20
Chloroethane	0.0250	0.0266	0.0272	106	109	51.0-147			2.18	20
Chloroform	0.0250	0.0273	0.0273	109	109	73.0-123			0.0700	20
Chloromethane	0.0250	0.0261	0.0265	104	106	51.0-138			1.53	20
2-Chlorotoluene	0.0250	0.0270	0.0282	108	113	72.0-124			4.65	20
4-Chlorotoluene	0.0250	0.0267	0.0277	107	111	78.0-120			3.60	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0220	0.0273	87.9	109	65.0-126		J3	21.6	20
1,2-Dibromoethane	0.0250	0.0246	0.0263	98.4	105	78.0-122			6.56	20
Dibromomethane	0.0250	0.0263	0.0270	105	108	79.0-120			2.82	20
1,2-Dichlorobenzene	0.0250	0.0248	0.0255	99.4	102	80.0-120			2.71	20
1,3-Dichlorobenzene	0.0250	0.0235	0.0238	93.8	95.0	72.0-123			1.28	20
1,4-Dichlorobenzene	0.0250	0.0233	0.0234	93.1	93.6	77.0-120			0.620	20
trans-1,4-Dichloro-2-butene	0.0250	0.0259	0.0269	104	108	68.0-126			3.68	20
Dichlorodifluoromethane	0.0250	0.0233	0.0236	93.1	94.4	49.0-155			1.36	20
1,1-Dichloroethane	0.0250	0.0288	0.0287	115	115	70.0-128			0.0900	20
1,2-Dichloroethane	0.0250	0.0286	0.0291	114	117	69.0-128			1.85	20
1,1-Dichloroethene	0.0250	0.0251	0.0258	100	103	63.0-131			2.56	20
cis-1,2-Dichloroethene	0.0250	0.0276	0.0279	110	111	74.0-123			0.980	20
trans-1,2-Dichloroethene	0.0250	0.0266	0.0266	107	107	72.0-122			0.0100	20
1,2-Dichloropropane	0.0250	0.0277	0.0280	111	112	75.0-126			1.13	20
1,1-Dichloropropene	0.0250	0.0288	0.0291	115	117	72.0-130			1.27	20
1,3-Dichloropropane	0.0250	0.0246	0.0273	98.3	109	80.0-121			10.5	20
cis-1,3-Dichloropropene	0.0250	0.0274	0.0284	109	114	80.0-125			3.90	20
trans-1,3-Dichloropropene	0.0250	0.0260	0.0271	104	108	75.0-129			4.11	20
2,2-Dichloropropane	0.0250	0.0260	0.0262	104	105	60.0-129			0.970	20
Di-isopropyl ether	0.0250	0.0290	0.0297	116	119	62.0-133			2.35	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243220-1 08/21/17 23:10 • (LCSD) R3243220-2 08/21/17 23:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0240	0.0240	95.8	96.2	77.0-120			0.360	20
Hexachloro-1,3-butadiene	0.0250	0.0210	0.0222	83.9	88.7	68.0-128			5.53	20
2-Hexanone	0.125	0.121	0.140	96.8	112	61.0-143			14.8	20
n-Hexane	0.0250	0.0267	0.0270	107	108	57.0-125			0.980	20
Iodomethane	0.125	0.139	0.140	112	112	67.0-132			0.530	20
Isopropylbenzene	0.0250	0.0267	0.0278	107	111	75.0-120			4.27	20
p-Isopropyltoluene	0.0250	0.0249	0.0257	99.6	103	74.0-125			2.98	20
2-Butanone (MEK)	0.125	0.113	0.123	90.1	98.7	37.0-159			9.11	20
Methylene Chloride	0.0250	0.0225	0.0228	89.9	91.0	67.0-123			1.25	20
4-Methyl-2-pentanone (MIBK)	0.125	0.124	0.140	99.0	112	60.0-144			12.5	20
Methyl tert-butyl ether	0.0250	0.0268	0.0280	107	112	66.0-125			4.46	20
Naphthalene	0.0250	0.0204	0.0232	81.7	92.6	64.0-125			12.5	20
n-Propylbenzene	0.0250	0.0269	0.0278	108	111	78.0-120			3.19	20
Styrene	0.0250	0.0282	0.0292	113	117	78.0-124			3.58	20
1,1,1,2-Tetrachloroethane	0.0250	0.0242	0.0244	96.6	97.7	74.0-124			1.17	20
1,1,2,2-Tetrachloroethane	0.0250	0.0264	0.0292	106	117	73.0-120			10.1	20
Tetrachloroethene	0.0250	0.0230	0.0238	91.8	95.1	70.0-127			3.53	20
Toluene	0.0250	0.0234	0.0243	93.4	97.1	77.0-120			3.85	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0273	0.0271	109	108	64.0-135			0.980	20
1,2,3-Trichlorobenzene	0.0250	0.0197	0.0213	78.8	85.4	68.0-126			8.00	20
1,2,4-Trichlorobenzene	0.0250	0.0196	0.0203	78.4	81.4	70.0-127			3.71	20
1,1,1-Trichloroethane	0.0250	0.0275	0.0276	110	110	69.0-125			0.410	20
1,1,2-Trichloroethane	0.0250	0.0235	0.0251	93.8	100	78.0-120			6.70	20
Trichloroethene	0.0250	0.0256	0.0265	102	106	79.0-120			3.60	20
Trichlorofluoromethane	0.0250	0.0249	0.0260	99.5	104	59.0-136			4.34	20
1,2,3-Trichloropropane	0.0250	0.0253	0.0281	101	112	73.0-124			10.3	20
1,2,3-Trimethylbenzene	0.0250	0.0249	0.0256	99.7	102	76.0-120			2.55	20
1,2,4-Trimethylbenzene	0.0250	0.0250	0.0262	99.9	105	75.0-120			4.62	20
1,3,5-Trimethylbenzene	0.0250	0.0251	0.0264	101	106	75.0-120			4.84	20
Vinyl acetate	0.125	0.138	0.141	111	113	58.0-156			1.94	20
Vinyl chloride	0.0250	0.0265	0.0269	106	108	63.0-134			1.36	20
Xylenes, Total	0.0750	0.0700	0.0720	93.3	96.0	77.0-120			2.82	20
(S) Toluene-d8				103	105	80.0-120				
(S) Dibromofluoromethane				111	109	74.0-131				
(S) 4-Bromofluorobenzene				105	111	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L929784-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L929784-07 08/22/17 02:20 • (MS) R3243220-4 08/22/17 10:05 • (MSD) R3243220-5 08/22/17 10:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.147	ND	6.27	6.73	171	184	25	10.0-160	J5	J5	7.09	36
Acrylonitrile	0.147	ND	4.07	4.08	111	111	25	14.0-160			0.130	33
Benzene	0.0293	ND	0.765	0.773	104	105	25	13.0-146			1.00	27
Bromobenzene	0.0293	ND	0.784	0.827	107	113	25	10.0-149			5.33	33
Bromodichloromethane	0.0293	ND	0.763	0.768	104	105	25	15.0-142			0.630	28
Bromochloromethane	0.0293	ND	0.745	0.750	102	102	25	24.0-146			0.760	27
Bromoform	0.0293	ND	0.776	0.813	106	111	25	10.0-147			4.58	31
Bromomethane	0.0293	ND	0.868	0.873	118	119	25	10.0-160			0.640	32
n-Butylbenzene	0.0293	ND	0.763	0.851	100	112	25	10.0-154			11.0	37
sec-Butylbenzene	0.0293	ND	0.768	0.818	104	110	25	10.0-151			6.32	36
tert-Butylbenzene	0.0293	ND	0.758	0.800	103	109	25	10.0-152			5.38	35
Carbon disulfide	0.0293	ND	0.622	0.614	84.9	83.8	25	10.0-141			1.30	30
Carbon tetrachloride	0.0293	ND	0.719	0.726	98.1	99.0	25	13.0-140			1.00	30
Chlorobenzene	0.0293	ND	0.684	0.695	93.3	94.9	25	10.0-149			1.65	31
Chlorodibromomethane	0.0293	ND	0.692	0.718	94.5	98.0	25	12.0-147			3.63	29
Chloroethane	0.0293	ND	0.683	0.657	93.3	89.6	25	10.0-159			3.94	33
Chloroform	0.0293	ND	0.765	0.767	104	105	25	18.0-148			0.290	28
Chloromethane	0.0293	ND	0.670	0.652	91.5	88.9	25	10.0-146			2.82	29
2-Chlorotoluene	0.0293	ND	0.778	0.825	106	113	25	10.0-151			5.85	35
4-Chlorotoluene	0.0293	ND	0.766	0.809	104	110	25	10.0-150			5.51	35
1,2-Dibromo-3-Chloropropane	0.0293	ND	0.730	0.753	99.6	103	25	10.0-149			3.09	34
1,2-Dibromoethane	0.0293	ND	0.678	0.684	92.6	93.3	25	14.0-145			0.770	28
Dibromomethane	0.0293	ND	0.728	0.736	99.4	100	25	18.0-144			1.04	27
1,2-Dichlorobenzene	0.0293	ND	0.752	0.794	103	108	25	10.0-153			5.45	34
1,3-Dichlorobenzene	0.0293	ND	0.719	0.762	98.1	104	25	10.0-150			5.83	35
1,4-Dichlorobenzene	0.0293	ND	0.709	0.766	96.8	105	25	10.0-148			7.71	34
trans-1,4-Dichloro-2-butene	0.0293	ND	0.822	0.905	112	123	25	10.0-160			9.68	40
Dichlorodifluoromethane	0.0293	ND	0.591	0.600	80.6	81.9	25	10.0-160			1.61	30
1,1-Dichloroethane	0.0293	ND	0.803	0.795	110	108	25	19.0-148			1.07	28
1,2-Dichloroethane	0.0293	ND	0.789	0.803	108	110	25	17.0-147			1.83	27
1,1-Dichloroethene	0.0293	ND	0.670	0.662	91.5	90.3	25	10.0-150			1.30	31
cis-1,2-Dichloroethene	0.0293	ND	0.765	0.747	104	102	25	16.0-145			2.43	28
trans-1,2-Dichloroethene	0.0293	ND	0.691	0.690	94.3	94.2	25	11.0-142			0.120	29
1,2-Dichloropropane	0.0293	ND	0.791	0.804	108	110	25	17.0-148			1.63	28
1,1-Dichloropropene	0.0293	ND	0.751	0.748	103	102	25	10.0-150			0.430	30
1,3-Dichloropropane	0.0293	ND	0.698	0.717	95.2	97.8	25	16.0-148			2.62	27
cis-1,3-Dichloropropene	0.0293	ND	0.707	0.726	96.4	99.1	25	13.0-150			2.73	28
trans-1,3-Dichloropropene	0.0293	ND	0.709	0.724	96.7	98.8	25	10.0-152			2.14	29
2,2-Dichloropropane	0.0293	ND	0.682	0.665	93.0	90.8	25	16.0-143			2.42	30

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



L929784-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L929784-07 08/22/17 02:20 • (MS) R3243220-4 08/22/17 10:05 • (MSD) R3243220-5 08/22/17 10:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	0.0293	ND	0.862	0.856	118	117	25	16.0-149			0.700	28
Ethylbenzene	0.0293	ND	0.688	0.700	90.6	92.2	25	10.0-147			1.67	31
Hexachloro-1,3-butadiene	0.0293	ND	0.734	0.778	100	106	25	10.0-154			5.73	40
2-Hexanone	0.147	ND	3.86	4.02	105	110	25	12.0-158			4.10	30
n-Hexane	0.0293	ND	0.680	0.689	89.4	90.6	25	10.0-140			1.34	34
Iodomethane	0.147	ND	3.43	3.39	93.7	92.5	25	10.0-157			1.21	34
Isopropylbenzene	0.0293	ND	0.768	0.819	104	111	25	10.0-147			6.43	33
p-Isopropyltoluene	0.0293	ND	0.757	0.821	102	111	25	10.0-156			8.06	37
2-Butanone (MEK)	0.147	ND	4.04	4.18	110	114	25	10.0-160			3.40	33
Methylene Chloride	0.0293	ND	0.587	0.571	80.1	77.9	25	16.0-139			2.72	29
4-Methyl-2-pentanone (MIBK)	0.147	ND	3.60	3.61	98.2	98.4	25	12.0-160			0.290	32
Methyl tert-butyl ether	0.0293	0.0458	0.806	0.792	104	102	25	21.0-145			1.69	29
Naphthalene	0.0293	ND	0.827	0.884	99.3	107	25	10.0-153			6.67	36
n-Propylbenzene	0.0293	0.0414	0.816	0.871	106	113	25	10.0-151			6.49	34
Styrene	0.0293	ND	0.757	0.789	103	108	25	10.0-155			4.08	34
1,1,1,2-Tetrachloroethane	0.0293	ND	0.698	0.680	95.2	92.8	25	10.0-147			2.55	30
1,1,2,2-Tetrachloroethane	0.0293	ND	0.751	0.783	103	107	25	10.0-155			4.08	31
Tetrachloroethene	0.0293	ND	0.635	0.649	86.6	88.6	25	10.0-144			2.33	32
Toluene	0.0293	ND	0.655	0.674	89.4	92.0	25	10.0-144			2.82	28
1,1,2-Trichlorotrifluoroethane	0.0293	ND	0.722	0.737	98.5	101	25	10.0-153			2.06	33
1,2,3-Trichlorobenzene	0.0293	ND	0.740	0.791	101	108	25	10.0-153			6.67	40
1,2,4-Trichlorobenzene	0.0293	ND	0.702	0.794	95.7	108	25	10.0-156			12.4	40
1,1,1-Trichloroethane	0.0293	ND	0.766	0.761	105	104	25	18.0-145			0.730	29
1,1,2-Trichloroethane	0.0293	ND	0.674	0.685	91.9	93.4	25	12.0-151			1.65	28
Trichloroethene	0.0293	ND	0.695	0.710	94.8	96.9	25	11.0-148			2.14	29
Trichlorofluoromethane	0.0293	ND	0.825	0.809	113	110	25	10.0-157			2.03	34
1,2,3-Trichloropropane	0.0293	ND	0.719	0.716	98.2	97.7	25	10.0-154			0.460	32
1,2,3-Trimethylbenzene	0.0293	0.121	0.865	0.918	102	109	25	10.0-150			5.99	33
1,2,4-Trimethylbenzene	0.0293	0.411	1.11	1.21	95.1	110	25	10.0-151			9.13	34
1,3,5-Trimethylbenzene	0.0293	0.0792	0.819	0.879	101	109	25	10.0-150			7.10	33
Vinyl acetate	0.147	ND	3.77	3.55	103	96.8	25	10.0-160			6.10	40
Vinyl chloride	0.0293	ND	0.662	0.671	90.3	91.5	25	10.0-150			1.30	29
Xylenes, Total	0.0879	ND	2.19	2.23	99.6	101	25	10.0-150			1.75	31
(S) Toluene-d8					99.7	101		80.0-120				
(S) Dibromofluoromethane					108	104		74.0-131				
(S) 4-Bromofluorobenzene					103	104		64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

OS: Target compounds too high to run at a lower dilution.



Method Blank (MB)

(MB) R3242760-3 08/19/17 00:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3242760-3 08/19/17 00:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	U		0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	117			80.0-120
(S) Dibromofluoromethane	101			74.0-131
(S) 4-Bromofluorobenzene	103			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3242760-1 08/18/17 23:33 • (LCSD) R3242760-2 08/18/17 23:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	0.110	0.105	88.4	83.7	11.0-160			5.38	23
Acrylonitrile	0.125	0.105	0.0988	84.3	79.0	61.0-143			6.41	20
Benzene	0.0250	0.0245	0.0236	98.0	94.3	71.0-124			3.88	20
Bromobenzene	0.0250	0.0268	0.0251	107	100	78.0-120			6.77	20
Bromodichloromethane	0.0250	0.0255	0.0242	102	97.0	75.0-120			5.10	20
Bromochloromethane	0.0250	0.0280	0.0272	112	109	80.0-121			2.95	20
Bromoform	0.0250	0.0282	0.0260	113	104	65.0-133			8.14	20
Bromomethane	0.0250	0.0194	0.0192	77.7	76.8	26.0-160			1.21	20
n-Butylbenzene	0.0250	0.0264	0.0250	106	100	73.0-126			5.38	20
sec-Butylbenzene	0.0250	0.0278	0.0265	111	106	75.0-121			4.74	20
tert-Butylbenzene	0.0250	0.0277	0.0258	111	103	74.0-122			7.31	20
Carbon disulfide	0.0250	0.0235	0.0229	94.0	91.5	53.0-130			2.68	20
Carbon tetrachloride	0.0250	0.0220	0.0214	88.0	85.7	66.0-123			2.55	20
Chlorobenzene	0.0250	0.0289	0.0277	116	111	79.0-121			4.30	20
Chlorodibromomethane	0.0250	0.0277	0.0259	111	104	74.0-128			6.76	20
Chloroethane	0.0250	0.0217	0.0205	86.8	82.2	51.0-147			5.44	20
Chloroform	0.0250	0.0245	0.0237	98.1	94.6	73.0-123			3.62	20
Chloromethane	0.0250	0.0225	0.0218	89.8	87.1	51.0-138			3.03	20
2-Chlorotoluene	0.0250	0.0272	0.0257	109	103	72.0-124			5.84	20
4-Chlorotoluene	0.0250	0.0271	0.0253	108	101	78.0-120			6.87	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0243	0.0221	97.3	88.4	65.0-126			9.62	20
1,2-Dibromoethane	0.0250	0.0298	0.0286	119	114	78.0-122			4.26	20
Dibromomethane	0.0250	0.0237	0.0227	94.9	90.8	79.0-120			4.44	20
1,2-Dichlorobenzene	0.0250	0.0266	0.0249	107	99.5	80.0-120			6.84	20
1,3-Dichlorobenzene	0.0250	0.0277	0.0258	111	103	72.0-123			6.97	20
1,4-Dichlorobenzene	0.0250	0.0278	0.0262	111	105	77.0-120			6.16	20
trans-1,4-Dichloro-2-butene	0.0250	0.0209	0.0196	83.7	78.4	68.0-126			6.54	20
Dichlorodifluoromethane	0.0250	0.0215	0.0214	86.1	85.8	49.0-155			0.360	20
1,1-Dichloroethane	0.0250	0.0253	0.0245	101	97.9	70.0-128			3.24	20
1,2-Dichloroethane	0.0250	0.0232	0.0220	92.7	87.8	69.0-128			5.39	20
1,1-Dichloroethene	0.0250	0.0226	0.0212	90.5	84.9	63.0-131			6.42	20
cis-1,2-Dichloroethene	0.0250	0.0260	0.0252	104	101	74.0-123			3.14	20
trans-1,2-Dichloroethene	0.0250	0.0276	0.0261	111	104	72.0-122			5.71	20
1,2-Dichloropropane	0.0250	0.0250	0.0241	99.9	96.3	75.0-126			3.62	20
1,1-Dichloropropene	0.0250	0.0242	0.0237	97.0	94.7	72.0-130			2.39	20
1,3-Dichloropropane	0.0250	0.0278	0.0266	111	106	80.0-121			4.37	20
cis-1,3-Dichloropropene	0.0250	0.0284	0.0273	114	109	80.0-125			4.05	20
trans-1,3-Dichloropropene	0.0250	0.0279	0.0267	111	107	75.0-129			4.13	20
2,2-Dichloropropane	0.0250	0.0187	0.0191	74.9	76.4	60.0-129			1.94	20
Di-isopropyl ether	0.0250	0.0231	0.0221	92.3	88.6	62.0-133			4.09	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3242760-1 08/18/17 23:33 • (LCSD) R3242760-2 08/18/17 23:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0289	0.0283	115	113	77.0-120			1.99	20
Hexachloro-1,3-butadiene	0.0250	0.0284	0.0281	114	112	68.0-128			1.08	20
2-Hexanone	0.125	0.127	0.121	102	97.1	61.0-143			4.47	20
n-Hexane	0.0250	0.0234	0.0232	93.7	93.0	57.0-125			0.810	20
Iodomethane	0.125	0.119	0.116	95.2	92.5	67.0-132			2.89	20
Isopropylbenzene	0.0250	0.0276	0.0254	110	102	75.0-120			8.05	20
p-Isopropyltoluene	0.0250	0.0285	0.0266	114	106	74.0-125			7.02	20
2-Butanone (MEK)	0.125	0.111	0.106	88.5	84.4	37.0-159			4.71	20
Methylene Chloride	0.0250	0.0246	0.0236	98.5	94.5	67.0-123			4.16	20
4-Methyl-2-pentanone (MIBK)	0.125	0.110	0.105	88.2	83.7	60.0-144			5.32	20
Methyl tert-butyl ether	0.0250	0.0196	0.0197	78.5	78.6	66.0-125			0.220	20
Naphthalene	0.0250	0.0240	0.0233	96.1	93.1	64.0-125			3.12	20
n-Propylbenzene	0.0250	0.0278	0.0256	111	102	78.0-120			8.25	20
Styrene	0.0250	0.0273	0.0244	109	97.5	78.0-124			11.2	20
1,1,1,2-Tetrachloroethane	0.0250	0.0265	0.0260	106	104	74.0-124			1.96	20
1,1,2,2-Tetrachloroethane	0.0250	0.0245	0.0220	97.8	88.0	73.0-120			10.6	20
Tetrachloroethene	0.0250	0.0320	0.0313	128	125	70.0-127	J4		2.39	20
Toluene	0.0250	0.0276	0.0271	110	108	77.0-120			1.95	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0208	0.0203	83.3	81.0	64.0-135			2.73	20
1,2,3-Trichlorobenzene	0.0250	0.0280	0.0268	112	107	68.0-126			4.33	20
1,2,4-Trichlorobenzene	0.0250	0.0268	0.0257	107	103	70.0-127			4.02	20
1,1,1-Trichloroethane	0.0250	0.0233	0.0221	93.3	88.4	69.0-125			5.36	20
1,1,2-Trichloroethane	0.0250	0.0272	0.0260	109	104	78.0-120			4.42	20
Trichloroethene	0.0250	0.0266	0.0258	106	103	79.0-120			2.87	20
Trichlorofluoromethane	0.0250	0.0215	0.0211	86.1	84.6	59.0-136			1.79	20
1,2,3-Trichloropropane	0.0250	0.0243	0.0223	97.2	89.0	73.0-124			8.75	20
1,2,3-Trimethylbenzene	0.0250	0.0256	0.0244	102	97.7	76.0-120			4.74	20
1,2,4-Trimethylbenzene	0.0250	0.0264	0.0248	106	99.2	75.0-120			6.34	20
1,3,5-Trimethylbenzene	0.0250	0.0275	0.0260	110	104	75.0-120			5.78	20
Vinyl acetate	0.125	0.118	0.109	94.2	87.3	58.0-156			7.55	20
Vinyl chloride	0.0250	0.0227	0.0219	90.9	87.4	63.0-134			3.90	20
Xylenes, Total	0.0750	0.0868	0.0837	116	112	77.0-120			3.64	20
(S) Toluene-d8				116	117	80.0-120				
(S) Dibromofluoromethane				102	99.7	74.0-131				
(S) 4-Bromofluorobenzene				105	102	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L930246-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L930246-01 08/19/17 05:48 • (MS) R3242760-4 08/19/17 07:46 • (MSD) R3242760-5 08/19/17 08:06

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	ND	1.88	2.09	60.0	67.0	25	10.0-160			10.9	36
Acrylonitrile	0.125	ND	2.32	2.18	74.1	69.9	25	14.0-160			5.86	33
Benzene	0.0250	ND	0.508	0.488	81.3	78.0	25	13.0-146			4.15	27
Bromobenzene	0.0250	ND	0.533	0.517	85.3	82.8	25	10.0-149			2.99	33
Bromodichloromethane	0.0250	ND	0.522	0.509	83.5	81.4	25	15.0-142			2.63	28
Bromochloromethane	0.0250	ND	0.580	0.546	92.8	87.4	25	24.0-146			5.98	27
Bromoform	0.0250	ND	0.579	0.579	92.6	92.6	25	10.0-147			0.000	31
Bromomethane	0.0250	ND	0.270	0.244	43.2	39.0	25	10.0-160			10.2	32
n-Butylbenzene	0.0250	0.0986	0.606	0.623	81.2	83.9	25	10.0-154			2.72	37
sec-Butylbenzene	0.0250	0.0744	0.630	0.644	88.9	91.2	25	10.0-151			2.25	36
tert-Butylbenzene	0.0250	ND	0.599	0.597	92.8	92.5	25	10.0-152			0.350	35
Carbon disulfide	0.0250	ND	0.472	0.450	75.5	72.1	25	10.0-141			4.62	30
Carbon tetrachloride	0.0250	ND	0.437	0.424	70.0	67.9	25	13.0-140			3.07	30
Chlorobenzene	0.0250	0.0365	0.592	0.537	88.9	80.1	25	10.0-149			9.84	31
Chlorodibromomethane	0.0250	ND	0.509	0.486	81.4	77.7	25	12.0-147			4.64	29
Chloroethane	0.0250	ND	0.136	0.127	21.8	20.3	25	10.0-159			7.05	33
Chloroform	0.0250	ND	0.521	0.480	82.3	75.7	25	18.0-148			8.24	28
Chloromethane	0.0250	ND	0.472	0.432	75.5	69.1	25	10.0-146			8.86	29
2-Chlorotoluene	0.0250	ND	0.585	0.571	91.7	89.6	25	10.0-151			2.26	35
4-Chlorotoluene	0.0250	0.0545	0.580	0.567	84.1	82.0	25	10.0-150			2.26	35
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.530	0.547	84.8	87.6	25	10.0-149			3.15	34
1,2-Dibromoethane	0.0250	ND	0.578	0.532	90.6	83.2	25	14.0-145			8.31	28
Dibromomethane	0.0250	ND	0.504	0.502	78.3	78.0	25	18.0-144			0.440	27
1,2-Dichlorobenzene	0.0250	ND	0.592	0.572	92.4	89.1	25	10.0-153			3.48	34
1,3-Dichlorobenzene	0.0250	ND	0.587	0.570	94.0	91.3	25	10.0-150			2.91	35
1,4-Dichlorobenzene	0.0250	ND	0.609	0.584	95.3	91.2	25	10.0-148			4.22	34
trans-1,4-Dichloro-2-butene	0.0250	0.348	0.615	0.722	42.7	59.8	25	10.0-160			15.9	40
Dichlorodifluoromethane	0.0250	ND	0.497	0.474	79.5	75.8	25	10.0-160			4.72	30
1,1-Dichloroethane	0.0250	ND	0.533	0.500	85.3	80.0	25	19.0-148			6.43	28
1,2-Dichloroethane	0.0250	ND	0.494	0.470	79.0	75.2	25	17.0-147			4.92	27
1,1-Dichloroethene	0.0250	ND	0.500	0.479	80.0	76.6	25	10.0-150			4.26	31
cis-1,2-Dichloroethene	0.0250	ND	0.537	0.502	85.9	80.4	25	16.0-145			6.60	28
trans-1,2-Dichloroethene	0.0250	ND	0.531	0.508	85.0	81.2	25	11.0-142			4.56	29
1,2-Dichloropropane	0.0250	ND	0.524	0.524	83.8	83.8	25	17.0-148			0.0200	28
1,1-Dichloropropene	0.0250	ND	0.496	0.477	79.3	76.3	25	10.0-150			3.97	30
1,3-Dichloropropane	0.0250	ND	0.541	0.506	86.6	81.0	25	16.0-148			6.66	27
cis-1,3-Dichloropropene	0.0250	ND	0.544	0.506	87.0	81.0	25	13.0-150			7.16	28
trans-1,3-Dichloropropene	0.0250	ND	0.527	0.490	84.3	78.4	25	10.0-152			7.20	29
2,2-Dichloropropane	0.0250	ND	0.362	0.327	57.9	52.3	25	16.0-143			10.1	30
Di-isopropyl ether	0.0250	ND	0.489	0.458	78.2	73.3	25	16.0-149			6.48	28

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



L930246-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L930246-01 08/19/17 05:48 • (MS) R3242760-4 08/19/17 07:46 • (MSD) R3242760-5 08/19/17 08:06

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	ND	0.558	0.513	89.3	82.1	25	10.0-147			8.47	31
Hexachloro-1,3-butadiene	0.0250	ND	0.482	0.488	77.1	78.1	25	10.0-154			1.29	40
2-Hexanone	0.125	ND	2.15	2.16	68.7	69.1	25	12.0-158			0.540	30
n-Hexane	0.0250	ND	0.440	0.448	67.8	69.0	25	10.0-140			1.74	34
Iodomethane	0.125	ND	2.67	2.52	85.5	80.5	25	10.0-157			6.06	34
Isopropylbenzene	0.0250	ND	0.604	0.584	94.2	91.1	25	10.0-147			3.33	33
p-Isopropyltoluene	0.0250	0.0262	0.597	0.594	91.4	90.9	25	10.0-156			0.500	37
2-Butanone (MEK)	0.125	ND	2.16	2.25	62.2	65.3	25	10.0-160			4.33	33
Methylene Chloride	0.0250	ND	0.504	0.451	80.6	72.1	25	16.0-139			11.0	29
4-Methyl-2-pentanone (MIBK)	0.125	0.847	2.00	1.87	37.0	32.7	25	12.0-160			6.90	32
Methyl tert-butyl ether	0.0250	0.0870	0.430	0.405	54.9	50.9	25	21.0-145			5.97	29
Naphthalene	0.0250	ND	0.573	0.573	86.9	86.8	25	10.0-153			0.0600	36
n-Propylbenzene	0.0250	ND	0.579	0.567	91.4	89.5	25	10.0-151			2.06	34
Styrene	0.0250	ND	0.626	0.624	100	99.8	25	10.0-155			0.390	34
1,1,1,2-Tetrachloroethane	0.0250	ND	0.513	0.467	82.1	74.7	25	10.0-147			9.52	30
1,1,2,2-Tetrachloroethane	0.0250	0.329	0.719	0.752	62.4	67.7	25	10.0-155			4.48	31
Tetrachloroethene	0.0250	ND	0.589	0.561	94.2	89.7	25	10.0-144			4.89	32
Toluene	0.0250	ND	0.526	0.499	84.2	79.9	25	10.0-144			5.25	28
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.481	0.462	76.9	74.0	25	10.0-153			3.84	33
1,2,3-Trichlorobenzene	0.0250	ND	0.573	0.551	91.7	88.1	25	10.0-153			3.96	40
1,2,4-Trichlorobenzene	0.0250	ND	0.550	0.536	88.0	85.8	25	10.0-156			2.56	40
1,1,1-Trichloroethane	0.0250	ND	0.469	0.441	75.1	70.6	25	18.0-145			6.11	29
1,1,2-Trichloroethane	0.0250	0.261	0.690	0.683	68.7	67.6	25	12.0-151			1.03	28
Trichloroethene	0.0250	ND	0.545	0.539	87.3	86.2	25	11.0-148			1.23	29
Trichlorofluoromethane	0.0250	ND	0.406	0.251	65.0	40.1	25	10.0-157		J3	47.4	34
1,2,3-Trichloropropane	0.0250	0.119	0.550	0.553	69.0	69.5	25	10.0-154			0.610	32
1,2,3-Trimethylbenzene	0.0250	0.201	0.737	0.733	85.7	85.0	25	10.0-150			0.570	33
1,2,4-Trimethylbenzene	0.0250	0.181	0.724	0.726	87.0	87.2	25	10.0-151			0.250	34
1,3,5-Trimethylbenzene	0.0250	ND	0.583	0.566	93.3	90.5	25	10.0-150			2.98	33
Vinyl acetate	0.125	ND	1.98	1.64	63.3	52.4	25	10.0-160			18.7	40
Vinyl chloride	0.0250	ND	0.465	0.444	74.3	71.0	25	10.0-150			4.62	29
Xylenes, Total	0.0750	ND	1.69	1.56	90.1	83.3	25	10.0-150			7.87	31
(S) Toluene-d8					106	104		80.0-120				
(S) Dibromofluoromethane					99.0	95.0		74.0-131				
(S) 4-Bromofluorobenzene					119	122		64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3243084-3 08/17/17 21:59

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3243084-3 08/17/17 21:59

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	103			76.0-123
(S) 4-Bromofluorobenzene	105			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243084-1 08/17/17 21:01 • (LCSD) R3243084-2 08/17/17 21:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	199	132	159	105	10.0-160		J3	40.9	23
Acrylonitrile	125	140	115	112	91.8	60.0-142			20.0	20
Benzene	25.0	26.0	25.7	104	103	69.0-123			1.42	20
Bromobenzene	25.0	24.6	24.8	98.6	99.2	79.0-120			0.610	20
Bromodichloromethane	25.0	25.7	25.3	103	101	76.0-120			1.78	20
Bromochloromethane	25.0	26.0	25.1	104	100	76.0-122			3.43	20
Bromoform	25.0	24.3	25.1	97.4	100	67.0-132			3.18	20
Bromomethane	25.0	26.2	24.6	105	98.5	18.0-160			6.17	20
n-Butylbenzene	25.0	25.7	25.7	103	103	72.0-126			0.0800	20
sec-Butylbenzene	25.0	25.9	25.7	104	103	74.0-121			0.970	20
tert-Butylbenzene	25.0	25.8	25.6	103	102	75.0-122			0.980	20
Carbon disulfide	25.0	28.3	27.8	113	111	55.0-127			1.51	20
Carbon tetrachloride	25.0	25.3	24.9	101	99.5	63.0-122			1.80	20
Chlorobenzene	25.0	25.0	25.1	100	100	79.0-121			0.210	20
Chlorodibromomethane	25.0	23.9	24.2	95.4	96.9	75.0-125			1.60	20
Chloroethane	25.0	27.7	26.1	111	105	47.0-152			5.65	20
Chloroform	25.0	26.2	25.8	105	103	72.0-121			1.88	20
Chloromethane	25.0	29.1	28.4	117	114	48.0-139			2.57	20
2-Chlorotoluene	25.0	25.4	25.4	101	101	74.0-122			0.0900	20
4-Chlorotoluene	25.0	25.6	25.6	102	102	79.0-120			0.0600	20
1,2-Dibromo-3-Chloropropane	25.0	24.1	22.3	96.3	89.2	64.0-127			7.64	20
1,2-Dibromoethane	25.0	23.9	24.3	95.6	97.3	77.0-123			1.84	20
Dibromomethane	25.0	26.4	25.5	106	102	78.0-120			3.58	20
1,2-Dichlorobenzene	25.0	24.5	24.4	98.1	97.7	80.0-120			0.390	20
1,3-Dichlorobenzene	25.0	25.3	25.1	101	101	72.0-123			0.480	20
1,4-Dichlorobenzene	25.0	24.8	24.7	99.3	98.9	77.0-120			0.440	20
Dichlorodifluoromethane	25.0	35.6	34.3	142	137	49.0-155			3.79	20
1,1-Dichloroethane	25.0	27.4	26.5	110	106	70.0-126			3.40	20
1,2-Dichloroethane	25.0	26.1	25.8	104	103	67.0-126			1.06	20
1,1-Dichloroethene	25.0	28.0	27.9	112	111	64.0-129			0.620	20
cis-1,2-Dichloroethene	25.0	26.5	26.0	106	104	73.0-120			2.00	20
trans-1,2-Dichloroethene	25.0	26.8	26.1	107	104	71.0-121			2.79	20
1,2-Dichloropropane	25.0	27.1	26.8	108	107	75.0-125			0.970	20
1,1-Dichloropropene	25.0	27.1	26.7	109	107	71.0-129			1.41	20
1,3-Dichloropropane	25.0	24.7	24.9	98.9	99.5	80.0-121			0.630	20
cis-1,3-Dichloropropene	25.0	24.9	24.9	99.5	99.7	79.0-123			0.230	20
trans-1,3-Dichloropropene	25.0	23.8	24.5	95.2	98.1	74.0-127			2.98	20
trans-1,4-Dichloro-2-butene	25.0	20.7	22.1	82.8	88.5	55.0-134			6.68	20
2,2-Dichloropropane	25.0	26.2	24.5	105	98.0	60.0-125			6.62	20
Di-isopropyl ether	25.0	26.9	25.8	108	103	59.0-133			4.22	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243084-1 08/17/17 21:01 • (LCSD) R3243084-2 08/17/17 21:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	25.2	25.1	101	100	77.0-120			0.390	20
Hexachloro-1,3-butadiene	25.0	22.9	23.7	91.4	94.7	64.0-131			3.51	20
2-Hexanone	125	132	130	106	104	58.0-147			1.26	20
n-Hexane	25.0	27.0	25.9	108	104	56.0-124			4.17	20
Iodomethane	125	135	132	108	105	57.0-140			2.75	20
Isopropylbenzene	25.0	26.0	26.0	104	104	75.0-120			0.100	20
p-Isopropyltoluene	25.0	25.1	25.0	100	99.9	74.0-126			0.390	20
2-Butanone (MEK)	125	155	131	124	105	37.0-158			16.6	20
Methylene Chloride	25.0	25.8	24.4	103	97.5	66.0-121			5.77	20
4-Methyl-2-pentanone (MIBK)	125	130	123	104	98.5	59.0-143			5.06	20
Methyl tert-butyl ether	25.0	26.3	24.9	105	99.7	64.0-123			5.46	20
Naphthalene	25.0	22.8	22.2	91.3	88.7	62.0-128			2.89	20
n-Propylbenzene	25.0	26.0	26.1	104	104	79.0-120			0.440	20
Styrene	25.0	25.7	26.3	103	105	78.0-124			2.07	20
1,1,1,2-Tetrachloroethane	25.0	24.7	24.7	98.9	98.7	75.0-122			0.190	20
1,1,2,2-Tetrachloroethane	25.0	24.7	24.2	98.7	96.9	71.0-122			1.86	20
1,1,2-Trichlorotrifluoroethane	25.0	29.4	28.3	117	113	61.0-136			3.66	20
Tetrachloroethene	25.0	24.8	24.7	99.1	99.0	70.0-127			0.110	20
Toluene	25.0	24.2	24.3	97.0	97.2	77.0-120			0.260	20
1,2,3-Trichlorobenzene	25.0	23.9	23.6	95.8	94.6	61.0-133			1.24	20
1,2,4-Trichlorobenzene	25.0	23.5	23.8	93.9	95.2	69.0-129			1.38	20
1,1,1-Trichloroethane	25.0	26.6	26.0	106	104	68.0-122			2.49	20
1,1,2-Trichloroethane	25.0	24.1	24.4	96.3	97.5	78.0-120			1.27	20
Trichloroethene	25.0	26.2	25.9	105	104	78.0-120			1.11	20
Trichlorofluoromethane	25.0	28.4	26.9	114	108	56.0-137			5.48	20
1,2,3-Trichloropropane	25.0	24.9	24.3	99.4	97.1	72.0-124			2.36	20
1,2,4-Trimethylbenzene	25.0	24.7	24.5	98.9	98.0	75.0-120			0.880	20
1,2,3-Trimethylbenzene	25.0	24.5	24.0	98.2	95.9	75.0-120			2.32	20
1,3,5-Trimethylbenzene	25.0	25.2	25.2	101	101	75.0-120			0.0400	20
Vinyl acetate	125	123	118	98.5	94.5	46.0-160			4.13	20
Vinyl chloride	25.0	29.7	28.9	119	116	64.0-133			2.56	20
Xylenes, Total	75.0	75.8	75.7	101	101	77.0-120			0.130	20
(S) Toluene-d8				103	105	80.0-120				
(S) Dibromofluoromethane				104	103	76.0-123				
(S) 4-Bromofluorobenzene				102	104	80.0-120				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL (dry)	Reported Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.



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 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

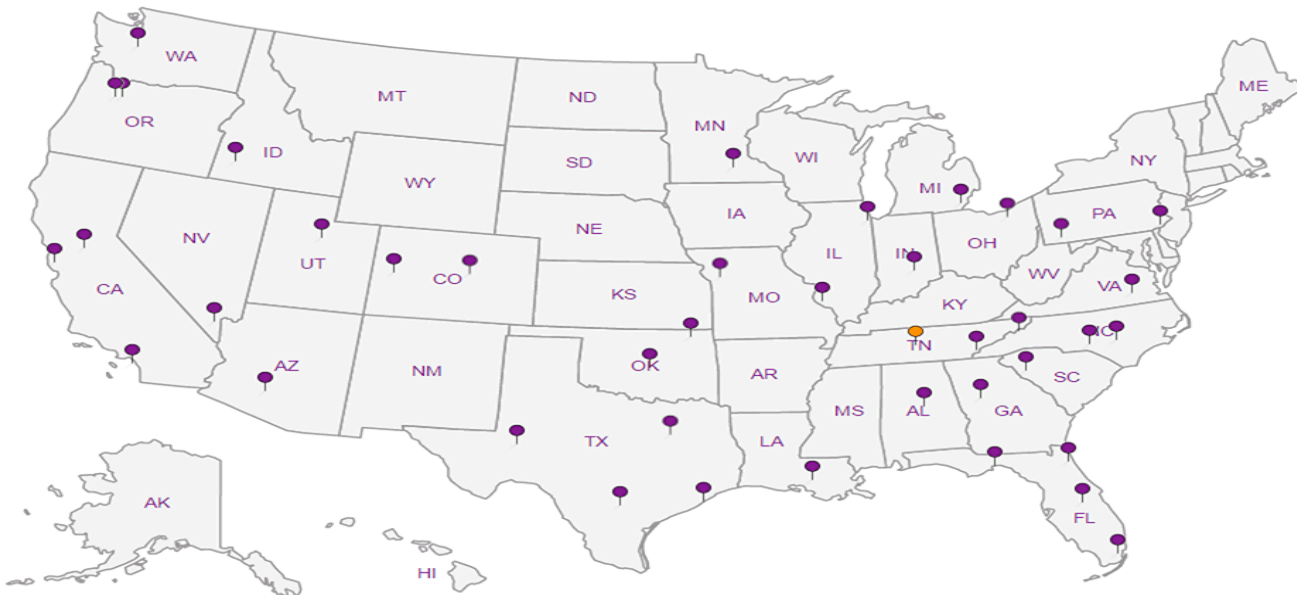
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc. - WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Billing Information:
 Attn: Accounts Payable
 1215 Fourth Ave., Ste. 1350
 Seattle, WA 98161

Pres. Chk

Chain of Custody Page 1 of 1

 a subsidiary of 

Report to:
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: **American Linen Project**

City/State Collected: **SEATTLE / WA**

Phone: 206-529-3980
 Fax: 206-529-3985


Client Project #
1413.001.02.602

Lab Project #
PESENVSWA-ALP

Collected by (print):
K. Springstead

Site/Facility ID #
1413.001.02.602

P.O. #
1413.001.02.602

Collected by (signature):

 Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day **STANDARD**

Quote #
 Date Results Needed
TAT

Analysis / Container / Preservative	
NWTPHGX 2ozClr-NoPres	
NWTPHGX 40mlAmb HCl	
TS 4ozClr-NoPres	
V8260C 40ml/NaHSO4/Syr/MeOH	
V8260C 40mlAmb-HCl	

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859


L# **1929 881**
C070
 Acctnum: **PESENVSWA**
 Template: **T126581**
 Prelogin: **P613267**
 TSR: **110 - Brian Ford**
 PB: **8/17/17**
 Shipped Via: **FedEX 2nd Day**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 2ozClr-NoPres	NWTPHGX 40mlAmb HCl	TS 4ozClr-NoPres	V8260C 40ml/NaHSO4/Syr/MeOH	V8260C 40mlAmb-HCl
MW-133-20	Grab	SS	20	8-15-17	1000	5	X	X	X		
MW-133-35		SS	35	8-15-17	1040	5	X	X	X		
MW-133-45		SS	45	8-15-17	1110	5	X	X	X		
MW-133-55		SS	55	8-15-17	1145	5	X	X	X		
MW-133-58		SS	58	8-15-17	1215	5	X	X	X	X	
MW-133-65		SS	65	8-15-17	1400	5	X	X	X		
MW-133-80-W		GW	80	8-15-17	1515	6	X	X	X	X	
MW-		SS				5	X	X	X		
MW-		SS				5	X	X	X		
MW-		SS				5	X	X	X		

Remarks	Sample # (lab only)
6x/VOCS	-01
	-02
	-03
	-04
	-05
	-06
	-07

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:
 Samples returned via:
 UPS FedEx Courier

Tracking #

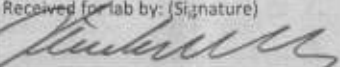
pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist
 COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 if Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)

 Date: **8-15-17**
 Time: **1600**

Date:
 Time:

Received by: (Signature)
 Received by: (Signature)
 Received for lab by: (Signature)


Trip Blank Received: Yes No
 HCL / MeOH
 TBR
 Temp: **1.7** °C
 Bottles Received: **41**

If preservation required by Login: Date/Time
 Hold:
 Condition:
 NCF / **10**

MEMORANDUM

TO: Project File **DATE:** September 21, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.002
TASK: August 15, 2017 – Soil and Groundwater Samples
LAB: ESC Lab ID L929881

Six (6) soil samples and one (1) groundwater sample were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington, on August 15, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- Total Solids by Standard Methods 2540 G-2011.

The results are reported in ESC Sample Delivery Group (SDG) L929881. The quarterly monitoring round occurred between August and September of 2017. Associated sample data are reported in X# ESC SDGs (SDGs L929881, L929901, L930317, L930670, L930884, L931390, L931655, L932059, L932260, L932611, L932876, L933267, L933455, L934130, L934673, L934916, and). The quality assurance review of the sample data associated with SDG L929881 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with the following discussion:

- Review of the chain of custody indicates that sample MW-133-75 (L929881-08) was not included. PES confirmed the sample identification and request for analysis with ESC on August 17, 2017.

Sample Collection and Preservation

Samples were collected on August 15, 2017 in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 1.7 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for soils and preserved water from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

All samples were analyzed within the WA State recommended holding time of fourteen days for soils and preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (Total Solids):

Samples were analyzed within the USEPA recommended holding time of 7 days for total solids. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C for soils:* Continuing calibration verification (CCV) issues were noted by ESC for hexachloro-1,3-butadiene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene associated with analytical batch WG1010895 (analyzed on August 22, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated sample results with laboratory qualified J0 results are estimated and qualified (UJ or J).**
- *USEPA Method 8260C for soils:* Continuing calibration verification (CCV) issues were noted by ESC for bromomethane, 2,2-dichloropropane, 1,1,2-trichlorotrifluoroethane, and tetrachloroethene associated with analytical batch WG1011219 (analyzed on August 19, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Sample MW-133-75 results with laboratory qualified J0 results are estimated and qualified (UJ or J).**

- *USEPA Method 8260C for water:* Continuing calibration verification (CCV) issues were noted by ESC for acetone, dichlorodifluoromethane, 2-butanone (MEK) associated with analytical batch WG1010972 (analyzed on August 18 and 22, 2017). These results are qualified by the laboratory “J0” to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Sample MW-133-80-W results with laboratory qualified J0 results are estimated and qualified (UJ or J).**

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs).

NWTPH-Gx Method:

Laboratory method blanks were included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blanks at or above the RDL.

Total Solids by SM 2540 G 2011:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (% solids) were not detected at significant levels in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Total Solids by SM 2540 G 2011:

Laboratory duplicate sample analyses were performed on a non-client sample and on sample MW-133-55 within the analytical batches. The primary/duplicate RPDs for total solids analyses are within the laboratory control limit of 5%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSD, MS/MSD, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, LCS/LCSDs, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils and waters with the following discussion:

- LCS/LCSD (Batch WG1010895) RPD value for compound 1,2-dibromo-3-chloropropane is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are within control limits.
- LCS (Batch WG1011219) percent recovery for compound tetrachloroethene is slightly above laboratory criteria and qualified by the laboratory (J4). **Sample MW-133-75 tetrachloroethene result is estimated and qualified (J).**
- LCSD (Batch WG1010972) RPD value for compound acetone is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are within control limits.

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water and soils.

Total Solids by SM 2540 G 2011:

The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) analysis were performed on non-client samples. MS/MSD % Rs and RPD were within the laboratory control criteria for soils with one exception:

- MS/MSD (Batch WG1010895) spike recovery results for compound acetone were recovered above the control limit criteria. No action is taken since the spike was performed on a non-client sample and associated LCS/LCSD recoveries are acceptable.
- MS/MSD (Batch WG1011219) RPD result for trichlorofluoromethane is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as MS/MSD percent recovery results are recovered wide but are within control limits.

NWTPH-Gx Method:

MS/MSD analysis was not performed. Refer to LCS/LCSD results for accuracy and precision data.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following exception:

- ESC notes indicate that Sample MW-133-35 was not reanalyzed at a lower dilution (for PCE) as there was no low level sodium bisulfite vials remaining. No action is taken other than to note this.

Compound Identification and Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

PES requested and ESC confirmed that there does not appear to be a gasoline chromatographic pattern in selected samples, and in “all likelihood the gasoline values are in the fact the high levels of chlorinated VOCs.” **Gasoline range organic results for samples MW-133-45, MW-133-55, MW-133-58, MW-133-65, and MW-133-80-W are qualified as estimated (J) based on chromatographic patterns in the samples and elevated chlorinated VOCs (CVOCs).**

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.9		1	08/21/2017 09:43	WG1011911

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.183		0.0400	0.118	1	08/20/2017 01:10	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	96.7			77.0-120		08/20/2017 01:10	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0279 J	J	0.0118	0.0589	1	08/22/2017 03:23	WG1010895
Acrylonitrile	U		0.00211	0.0118	1	08/22/2017 03:23	WG1010895
Benzene	0.000422 J	J	0.000318	0.00118	1	08/22/2017 03:23	WG1010895
Bromobenzene	U		0.000335	0.00118	1	08/22/2017 03:23	WG1010895
Bromodichloromethane	U		0.000299	0.00118	1	08/22/2017 03:23	WG1010895
Bromochloromethane	U		0.000460	0.00589	1	08/22/2017 03:23	WG1010895
Bromoform	U		0.000500	0.00118	1	08/22/2017 03:23	WG1010895
Bromomethane	U		0.00158	0.00589	1	08/22/2017 03:23	WG1010895
n-Butylbenzene	U		0.000304	0.00118	1	08/22/2017 03:23	WG1010895
sec-Butylbenzene	U		0.000237	0.00118	1	08/22/2017 03:23	WG1010895
tert-Butylbenzene	U		0.000243	0.00118	1	08/22/2017 03:23	WG1010895
Carbon disulfide	0.00252		0.000260	0.00118	1	08/22/2017 03:23	WG1010895
Carbon tetrachloride	U		0.000387	0.00118	1	08/22/2017 03:23	WG1010895
Chlorobenzene	U		0.000250	0.00118	1	08/22/2017 03:23	WG1010895
Chlorodibromomethane	U		0.000440	0.00118	1	08/22/2017 03:23	WG1010895
Chloroethane	U		0.00111	0.00589	1	08/22/2017 03:23	WG1010895
Chloroform	U		0.000270	0.00589	1	08/22/2017 03:23	WG1010895
Chloromethane	U		0.000442	0.00295	1	08/22/2017 03:23	WG1010895
2-Chlorotoluene	U		0.000355	0.00118	1	08/22/2017 03:23	WG1010895
4-Chlorotoluene	U		0.000283	0.00118	1	08/22/2017 03:23	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00124	0.00589	1	08/22/2017 03:23	WG1010895
1,2-Dibromoethane	U		0.000404	0.00118	1	08/22/2017 03:23	WG1010895
Dibromomethane	U		0.000450	0.00118	1	08/22/2017 03:23	WG1010895
1,2-Dichlorobenzene	U		0.000359	0.00118	1	08/22/2017 03:23	WG1010895
1,3-Dichlorobenzene	U		0.000282	0.00118	1	08/22/2017 03:23	WG1010895
1,4-Dichlorobenzene	U		0.000266	0.00118	1	08/22/2017 03:23	WG1010895
Dichlorodifluoromethane	U		0.000840	0.00589	1	08/22/2017 03:23	WG1010895
1,1-Dichloroethane	U		0.000235	0.00118	1	08/22/2017 03:23	WG1010895
1,2-Dichloroethane	U		0.000312	0.00118	1	08/22/2017 03:23	WG1010895
1,1-Dichloroethene	0.000487 J	J	0.000357	0.00118	1	08/22/2017 03:23	WG1010895
cis-1,2-Dichloroethene	0.159		0.000277	0.00118	1	08/22/2017 03:23	WG1010895
trans-1,2-Dichloroethene	0.000591 J	J	0.000311	0.00118	1	08/22/2017 03:23	WG1010895
1,2-Dichloropropane	U		0.000422	0.00118	1	08/22/2017 03:23	WG1010895
1,1-Dichloropropene	U		0.000374	0.00118	1	08/22/2017 03:23	WG1010895
1,3-Dichloropropane	U		0.000244	0.00118	1	08/22/2017 03:23	WG1010895
cis-1,3-Dichloropropene	U		0.000309	0.00118	1	08/22/2017 03:23	WG1010895
trans-1,3-Dichloropropene	U		0.000315	0.00118	1	08/22/2017 03:23	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000917	0.00295	1	08/22/2017 03:23	WG1010895
2,2-Dichloropropane	U		0.000329	0.00118	1	08/22/2017 03:23	WG1010895
Di-isopropyl ether	U		0.000292	0.00118	1	08/22/2017 03:23	WG1010895
Ethylbenzene	U		0.000350	0.00118	1	08/22/2017 03:23	WG1010895
Hexachloro-1,3-butadiene	U UJ	JO	0.000403	0.00118	1	08/22/2017 03:23	WG1010895
2-Hexanone	U		0.00161	0.0118	1	08/22/2017 03:23	WG1010895
n-Hexane	0.00531 J	J	0.000342	0.0118	1	08/22/2017 03:23	WG1010895

JC 9/21/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00298	0.0118	1	08/22/2017 03:23	WG1010895
Isopropylbenzene	U		0.000286	0.00118	1	08/22/2017 03:23	WG1010895
p-Isopropyltoluene	U		0.000240	0.00118	1	08/22/2017 03:23	WG1010895
2-Butanone (MEK)	U		0.00552	0.0118	1	08/22/2017 03:23	WG1010895
Methylene Chloride	U		0.00118	0.00589	1	08/22/2017 03:23	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00222	0.0118	1	08/22/2017 03:23	WG1010895
Methyl tert-butyl ether	U		0.000250	0.00118	1	08/22/2017 03:23	WG1010895
Naphthalene	U		0.00118	0.00589	1	08/22/2017 03:23	WG1010895
n-Propylbenzene	U		0.000243	0.00118	1	08/22/2017 03:23	WG1010895
Styrene	U		0.000276	0.00118	1	08/22/2017 03:23	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000311	0.00118	1	08/22/2017 03:23	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000430	0.00118	1	08/22/2017 03:23	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000430	0.00118	1	08/22/2017 03:23	WG1010895
Tetrachloroethene	3.62		0.00813	0.0295	25	08/23/2017 03:15	WG1010895
Toluene	U		0.000511	0.00589	1	08/22/2017 03:23	WG1010895
1,2,3-Trichlorobenzene	U	UJ JO	0.000361	0.00118	1	08/22/2017 03:23	WG1010895
1,2,4-Trichlorobenzene	U	UJ JO	0.000457	0.00118	1	08/22/2017 03:23	WG1010895
1,1,1-Trichloroethane	U		0.000337	0.00118	1	08/22/2017 03:23	WG1010895
1,1,2-Trichloroethane	U		0.000326	0.00118	1	08/22/2017 03:23	WG1010895
Trichloroethene	0.0688		0.000329	0.00118	1	08/22/2017 03:23	WG1010895
Trichlorofluoromethane	U		0.000450	0.00589	1	08/22/2017 03:23	WG1010895
1,2,3-Trichloropropane	U		0.000873	0.00295	1	08/22/2017 03:23	WG1010895
1,2,4-Trimethylbenzene	U		0.000249	0.00118	1	08/22/2017 03:23	WG1010895
1,2,3-Trimethylbenzene	U		0.000338	0.00118	1	08/22/2017 03:23	WG1010895
1,3,5-Trimethylbenzene	U		0.000313	0.00118	1	08/22/2017 03:23	WG1010895
Vinyl acetate	U		0.00282	0.0118	1	08/22/2017 03:23	WG1010895
Vinyl chloride	0.000389	J J	0.000343	0.00118	1	08/22/2017 03:23	WG1010895
Xylenes, Total	U		0.000823	0.00354	1	08/22/2017 03:23	WG1010895
(S) Toluene-d8	92.3			80.0-120		08/23/2017 03:15	WG1010895
(S) Toluene-d8	93.4			80.0-120		08/22/2017 03:23	WG1010895
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 03:15	WG1010895
(S) Dibromofluoromethane	112			74.0-131		08/22/2017 03:23	WG1010895
(S) 4-Bromofluorobenzene	105			64.0-132		08/22/2017 03:23	WG1010895
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 03:15	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/21/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	76.6		1	08/21/2017 09:20	WG1011913

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0443	0.131	1	08/20/2017 01:32	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	96.5			77.0-120		08/20/2017 01:32	WG1011634

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.169		0.0131	0.0653	1	08/22/2017 03:45	WG1010895
Acrylonitrile	U		0.00234	0.0131	1	08/22/2017 03:45	WG1010895
Benzene	U		0.000353	0.00131	1	08/22/2017 03:45	WG1010895
Bromobenzene	U		0.000371	0.00131	1	08/22/2017 03:45	WG1010895
Bromodichloromethane	U		0.000332	0.00131	1	08/22/2017 03:45	WG1010895
Bromochloromethane	U		0.000509	0.00653	1	08/22/2017 03:45	WG1010895
Bromoform	U		0.000554	0.00131	1	08/22/2017 03:45	WG1010895
Bromomethane	U		0.00175	0.00653	1	08/22/2017 03:45	WG1010895
n-Butylbenzene	U		0.000337	0.00131	1	08/22/2017 03:45	WG1010895
sec-Butylbenzene	U		0.000262	0.00131	1	08/22/2017 03:45	WG1010895
tert-Butylbenzene	U		0.000269	0.00131	1	08/22/2017 03:45	WG1010895
Carbon disulfide	0.000593 J	J	0.000289	0.00131	1	08/22/2017 03:45	WG1010895
Carbon tetrachloride	U		0.000428	0.00131	1	08/22/2017 03:45	WG1010895
Chlorobenzene	U		0.000277	0.00131	1	08/22/2017 03:45	WG1010895
Chlorodibromomethane	U		0.000487	0.00131	1	08/22/2017 03:45	WG1010895
Chloroethane	U		0.00124	0.00653	1	08/22/2017 03:45	WG1010895
Chloroform	U		0.000299	0.00653	1	08/22/2017 03:45	WG1010895
Chloromethane	U		0.000490	0.00326	1	08/22/2017 03:45	WG1010895
2-Chlorotoluene	U		0.000393	0.00131	1	08/22/2017 03:45	WG1010895
4-Chlorotoluene	U		0.000313	0.00131	1	08/22/2017 03:45	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00137	0.00653	1	08/22/2017 03:45	WG1010895
1,2-Dibromoethane	U		0.000448	0.00131	1	08/22/2017 03:45	WG1010895
Dibromomethane	U		0.000499	0.00131	1	08/22/2017 03:45	WG1010895
1,2-Dichlorobenzene	U		0.000398	0.00131	1	08/22/2017 03:45	WG1010895
1,3-Dichlorobenzene	U		0.000312	0.00131	1	08/22/2017 03:45	WG1010895
1,4-Dichlorobenzene	U		0.000295	0.00131	1	08/22/2017 03:45	WG1010895
Dichlorodifluoromethane	U		0.000931	0.00653	1	08/22/2017 03:45	WG1010895
1,1-Dichloroethane	U		0.000260	0.00131	1	08/22/2017 03:45	WG1010895
1,2-Dichloroethane	U		0.000346	0.00131	1	08/22/2017 03:45	WG1010895
1,1-Dichloroethene	U		0.000396	0.00131	1	08/22/2017 03:45	WG1010895
cis-1,2-Dichloroethene	0.000361 J	J	0.000307	0.00131	1	08/22/2017 03:45	WG1010895
trans-1,2-Dichloroethene	U		0.000345	0.00131	1	08/22/2017 03:45	WG1010895
1,2-Dichloropropane	U		0.000467	0.00131	1	08/22/2017 03:45	WG1010895
1,1-Dichloropropene	U		0.000414	0.00131	1	08/22/2017 03:45	WG1010895
1,3-Dichloropropane	U		0.000270	0.00131	1	08/22/2017 03:45	WG1010895
cis-1,3-Dichloropropene	U		0.000342	0.00131	1	08/22/2017 03:45	WG1010895
trans-1,3-Dichloropropene	U		0.000349	0.00131	1	08/22/2017 03:45	WG1010895
trans-1,4-Dichloro-2-butene	U		0.00102	0.00326	1	08/22/2017 03:45	WG1010895
2,2-Dichloropropane	U		0.000364	0.00131	1	08/22/2017 03:45	WG1010895
Di-isopropyl ether	U		0.000324	0.00131	1	08/22/2017 03:45	WG1010895
Ethylbenzene	U		0.000388	0.00131	1	08/22/2017 03:45	WG1010895
Hexachloro-1,3-butadiene	U UJ	JO	0.000447	0.00131	1	08/22/2017 03:45	WG1010895
2-Hexanone	U		0.00179	0.0131	1	08/22/2017 03:45	WG1010895
n-Hexane	U		0.000379	0.0131	1	08/22/2017 03:45	WG1010895

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/15/17 10:40

L929881

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00330	0.0131	1	08/22/2017 03:45	WG1010895
Isopropylbenzene	U		0.000317	0.00131	1	08/22/2017 03:45	WG1010895
p-Isopropyltoluene	U		0.000266	0.00131	1	08/22/2017 03:45	WG1010895
2-Butanone (MEK)	0.0258		0.00611	0.0131	1	08/22/2017 03:45	WG1010895
Methylene Chloride	U		0.00131	0.00653	1	08/22/2017 03:45	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00245	0.0131	1	08/22/2017 03:45	WG1010895
Methyl tert-butyl ether	U		0.000277	0.00131	1	08/22/2017 03:45	WG1010895
Naphthalene	U		0.00131	0.00653	1	08/22/2017 03:45	WG1010895
n-Propylbenzene	U		0.000269	0.00131	1	08/22/2017 03:45	WG1010895
Styrene	U		0.000306	0.00131	1	08/22/2017 03:45	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000345	0.00131	1	08/22/2017 03:45	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000477	0.00131	1	08/22/2017 03:45	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000477	0.00131	1	08/22/2017 03:45	WG1010895
Tetrachloroethene	U		0.00901	0.0326	25	08/23/2017 03:36	WG1010895
Toluene	U		0.000567	0.00653	1	08/22/2017 03:45	WG1010895
1,2,3-Trichlorobenzene	U	UJ JO	0.000400	0.00131	1	08/22/2017 03:45	WG1010895
1,2,4-Trichlorobenzene	U	UJ JO	0.000507	0.00131	1	08/22/2017 03:45	WG1010895
1,1,1-Trichloroethane	U		0.000373	0.00131	1	08/22/2017 03:45	WG1010895
1,1,2-Trichloroethane	U		0.000362	0.00131	1	08/22/2017 03:45	WG1010895
Trichloroethene	0.000594	J J	0.000364	0.00131	1	08/22/2017 03:45	WG1010895
Trichlorofluoromethane	U		0.000499	0.00653	1	08/22/2017 03:45	WG1010895
1,2,3-Trichloropropane	U		0.000967	0.00326	1	08/22/2017 03:45	WG1010895
1,2,4-Trimethylbenzene	U		0.000275	0.00131	1	08/22/2017 03:45	WG1010895
1,2,3-Trimethylbenzene	U		0.000375	0.00131	1	08/22/2017 03:45	WG1010895
1,3,5-Trimethylbenzene	U		0.000347	0.00131	1	08/22/2017 03:45	WG1010895
Vinyl acetate	U		0.00312	0.0131	1	08/22/2017 03:45	WG1010895
Vinyl chloride	U		0.000380	0.00131	1	08/22/2017 03:45	WG1010895
Xylenes, Total	U		0.000911	0.00392	1	08/22/2017 03:45	WG1010895
(S) Toluene-d8	96.1			80.0-120		08/22/2017 03:45	WG1010895
(S) Toluene-d8	86.2			80.0-120		08/23/2017 03:36	WG1010895
(S) Dibromofluoromethane	101			74.0-131		08/23/2017 03:36	WG1010895
(S) Dibromofluoromethane	114			74.0-131		08/22/2017 03:45	WG1010895
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 03:36	WG1010895
(S) 4-Bromofluorobenzene	105			64.0-132		08/22/2017 03:45	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L929881-02 WG1010895: No low level sodium bisulfite vials remaining. PCE cannot be analyzed at a lower dilution.

JC 9/21/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.0		1	08/21/2017 09:20	WG1011913

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	3.59	J	0.0368	0.109	1	08/20/2017 01:54	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	95.5			77.0-120		08/20/2017 01:54	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0142	J	0.0109	0.0543	1	08/22/2017 04:06	WG1010895
Acrylonitrile	U		0.00195	0.0109	1	08/22/2017 04:06	WG1010895
Benzene	U		0.000293	0.00109	1	08/22/2017 04:06	WG1010895
Bromobenzene	U		0.000309	0.00109	1	08/22/2017 04:06	WG1010895
Bromodichloromethane	U		0.000276	0.00109	1	08/22/2017 04:06	WG1010895
Bromochloromethane	U		0.000424	0.00543	1	08/22/2017 04:06	WG1010895
Bromoform	U		0.000461	0.00109	1	08/22/2017 04:06	WG1010895
Bromomethane	U		0.00146	0.00543	1	08/22/2017 04:06	WG1010895
n-Butylbenzene	U		0.000280	0.00109	1	08/22/2017 04:06	WG1010895
sec-Butylbenzene	U		0.000218	0.00109	1	08/22/2017 04:06	WG1010895
tert-Butylbenzene	U		0.000224	0.00109	1	08/22/2017 04:06	WG1010895
Carbon disulfide	0.00239		0.000240	0.00109	1	08/22/2017 04:06	WG1010895
Carbon tetrachloride	U		0.000356	0.00109	1	08/22/2017 04:06	WG1010895
Chlorobenzene	U		0.000230	0.00109	1	08/22/2017 04:06	WG1010895
Chlorodibromomethane	U		0.000405	0.00109	1	08/22/2017 04:06	WG1010895
Chloroethane	U		0.00103	0.00543	1	08/22/2017 04:06	WG1010895
Chloroform	U		0.000249	0.00543	1	08/22/2017 04:06	WG1010895
Chloromethane	U		0.000408	0.00272	1	08/22/2017 04:06	WG1010895
2-Chlorotoluene	U		0.000327	0.00109	1	08/22/2017 04:06	WG1010895
4-Chlorotoluene	U		0.000261	0.00109	1	08/22/2017 04:06	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00114	0.00543	1	08/22/2017 04:06	WG1010895
1,2-Dibromoethane	U		0.000373	0.00109	1	08/22/2017 04:06	WG1010895
Dibromomethane	U		0.000415	0.00109	1	08/22/2017 04:06	WG1010895
1,2-Dichlorobenzene	U		0.000331	0.00109	1	08/22/2017 04:06	WG1010895
1,3-Dichlorobenzene	U		0.000260	0.00109	1	08/22/2017 04:06	WG1010895
1,4-Dichlorobenzene	U		0.000246	0.00109	1	08/22/2017 04:06	WG1010895
Dichlorodifluoromethane	U		0.000775	0.00543	1	08/22/2017 04:06	WG1010895
1,1-Dichloroethane	U		0.000216	0.00109	1	08/22/2017 04:06	WG1010895
1,2-Dichloroethane	U		0.000288	0.00109	1	08/22/2017 04:06	WG1010895
1,1-Dichloroethene	0.0115		0.000329	0.00109	1	08/22/2017 04:06	WG1010895
cis-1,2-Dichloroethene	13.0		0.0511	0.217	200	08/23/2017 03:57	WG1010895
trans-1,2-Dichloroethene	0.00508		0.000287	0.00109	1	08/22/2017 04:06	WG1010895
1,2-Dichloropropane	U		0.000389	0.00109	1	08/22/2017 04:06	WG1010895
1,1-Dichloropropene	U		0.000345	0.00109	1	08/22/2017 04:06	WG1010895
1,3-Dichloropropane	U		0.000225	0.00109	1	08/22/2017 04:06	WG1010895
cis-1,3-Dichloropropene	U		0.000285	0.00109	1	08/22/2017 04:06	WG1010895
trans-1,3-Dichloropropene	U		0.000290	0.00109	1	08/22/2017 04:06	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000846	0.00272	1	08/22/2017 04:06	WG1010895
2,2-Dichloropropane	U		0.000303	0.00109	1	08/22/2017 04:06	WG1010895
Di-isopropyl ether	U		0.000270	0.00109	1	08/22/2017 04:06	WG1010895
Ethylbenzene	U		0.000323	0.00109	1	08/22/2017 04:06	WG1010895
Hexachloro-1,3-butadiene	U	UJ	0.000372	0.00109	1	08/22/2017 04:06	WG1010895
2-Hexanone	U		0.00149	0.0109	1	08/22/2017 04:06	WG1010895
n-Hexane	0.000378	J	0.000315	0.0109	1	08/22/2017 04:06	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/21/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00275	0.0109	1	08/22/2017 04:06	WG1010895
Isopropylbenzene	U		0.000264	0.00109	1	08/22/2017 04:06	WG1010895
p-Isopropyltoluene	U		0.000222	0.00109	1	08/22/2017 04:06	WG1010895
2-Butanone (MEK)	U		0.00509	0.0109	1	08/22/2017 04:06	WG1010895
Methylene Chloride	U		0.00109	0.00543	1	08/22/2017 04:06	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00204	0.0109	1	08/22/2017 04:06	WG1010895
Methyl tert-butyl ether	U		0.000230	0.00109	1	08/22/2017 04:06	WG1010895
Naphthalene	U		0.00109	0.00543	1	08/22/2017 04:06	WG1010895
n-Propylbenzene	U		0.000224	0.00109	1	08/22/2017 04:06	WG1010895
Styrene	U		0.000254	0.00109	1	08/22/2017 04:06	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000287	0.00109	1	08/22/2017 04:06	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000397	0.00109	1	08/22/2017 04:06	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000397	0.00109	1	08/22/2017 04:06	WG1010895
Tetrachloroethene	5.17		0.0600	0.217	200	08/23/2017 03:57	WG1010895
Toluene	U		0.000472	0.00543	1	08/22/2017 04:06	WG1010895
1,2,3-Trichlorobenzene	U <u>UJ</u>	<u>JO</u>	0.000333	0.00109	1	08/22/2017 04:06	WG1010895
1,2,4-Trichlorobenzene	U <u>UJ</u>	<u>JO</u>	0.000422	0.00109	1	08/22/2017 04:06	WG1010895
1,1,1-Trichloroethane	U		0.000311	0.00109	1	08/22/2017 04:06	WG1010895
1,1,2-Trichloroethane	U		0.000301	0.00109	1	08/22/2017 04:06	WG1010895
Trichloroethene	0.0309		0.000303	0.00109	1	08/22/2017 04:06	WG1010895
Trichlorofluoromethane	U		0.000415	0.00543	1	08/22/2017 04:06	WG1010895
1,2,3-Trichloropropane	U		0.000805	0.00272	1	08/22/2017 04:06	WG1010895
1,2,4-Trimethylbenzene	U		0.000229	0.00109	1	08/22/2017 04:06	WG1010895
1,2,3-Trimethylbenzene	U		0.000312	0.00109	1	08/22/2017 04:06	WG1010895
1,3,5-Trimethylbenzene	U		0.000289	0.00109	1	08/22/2017 04:06	WG1010895
Vinyl acetate	U		0.00260	0.0109	1	08/22/2017 04:06	WG1010895
Vinyl chloride	0.323		0.0633	0.217	200	08/23/2017 03:57	WG1010895
Xylenes, Total	U		0.000759	0.00326	1	08/22/2017 04:06	WG1010895
(S) Toluene-d8	95.7			80.0-120		08/22/2017 04:06	WG1010895
(S) Toluene-d8	103			80.0-120		08/23/2017 03:57	WG1010895
(S) Dibromofluoromethane	114			74.0-131		08/22/2017 04:06	WG1010895
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 03:57	WG1010895
(S) 4-Bromofluorobenzene	110			64.0-132		08/22/2017 04:06	WG1010895
(S) 4-Bromofluorobenzene	103			64.0-132		08/23/2017 03:57	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/21/17



Collected date/time: 08/15/17 11:45

L929881

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	81.8		1	08/21/2017 09:20	WG1011913

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	38.9	J	2.08	6.12	50	08/22/2017 15:26	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	98.5			77.0-120		08/22/2017 15:26	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch	
Acetone	U		2.45	12.2	200	08/22/2017 04:27	WG1010895	
Acrylonitrile	U		0.438	2.45	200	08/22/2017 04:27	WG1010895	
Benzene	U		0.0661	0.245	200	08/22/2017 04:27	WG1010895	
Bromobenzene	U		0.0695	0.245	200	08/22/2017 04:27	WG1010895	
Bromodichloromethane	U		0.0621	0.245	200	08/22/2017 04:27	WG1010895	
Bromochloromethane	U		0.0954	1.22	200	08/22/2017 04:27	WG1010895	
Bromoform	U		0.104	0.245	200	08/22/2017 04:27	WG1010895	
Bromomethane	U		0.328	1.22	200	08/22/2017 04:27	WG1010895	
n-Butylbenzene	U		0.0631	0.245	200	08/22/2017 04:27	WG1010895	
sec-Butylbenzene	U		0.0492	0.245	200	08/22/2017 04:27	WG1010895	
tert-Butylbenzene	U		0.0504	0.245	200	08/22/2017 04:27	WG1010895	
Carbon disulfide	U		0.0541	0.245	200	08/22/2017 04:27	WG1010895	
Carbon tetrachloride	U		0.0802	0.245	200	08/22/2017 04:27	WG1010895	
Chlorobenzene	U		0.0519	0.245	200	08/22/2017 04:27	WG1010895	
Chlorodibromomethane	U		0.0912	0.245	200	08/22/2017 04:27	WG1010895	
Chloroethane	U		0.231	1.22	200	08/22/2017 04:27	WG1010895	
Chloroform	U		0.0560	1.22	200	08/22/2017 04:27	WG1010895	
Chloromethane	U		0.0917	0.612	200	08/22/2017 04:27	WG1010895	
2-Chlorotoluene	U		0.0736	0.245	200	08/22/2017 04:27	WG1010895	
4-Chlorotoluene	U		0.0587	0.245	200	08/22/2017 04:27	WG1010895	
1,2-Dibromo-3-Chloropropane	U	J3	0.257	1.22	200	08/22/2017 04:27	WG1010895	
1,2-Dibromoethane	U		0.0839	0.245	200	08/22/2017 04:27	WG1010895	
Dibromomethane	U		0.0935	0.245	200	08/22/2017 04:27	WG1010895	
1,2-Dichlorobenzene	U		0.0746	0.245	200	08/22/2017 04:27	WG1010895	
1,3-Dichlorobenzene	U		0.0585	0.245	200	08/22/2017 04:27	WG1010895	
1,4-Dichlorobenzene	U		0.0553	0.245	200	08/22/2017 04:27	WG1010895	
Dichlorodifluoromethane	U		0.175	1.22	200	08/22/2017 04:27	WG1010895	
1,1-Dichloroethane	U		0.0487	0.245	200	08/22/2017 04:27	WG1010895	
1,2-Dichloroethane	U		0.0648	0.245	200	08/22/2017 04:27	WG1010895	
1,1-Dichloroethene	U		0.0741	0.245	200	08/22/2017 04:27	WG1010895	
cis-1,2-Dichloroethene	4.09		0.287	1.22	1000	08/23/2017 04:18	WG1010895	
trans-1,2-Dichloroethene	U		0.0646	0.245	200	08/22/2017 04:27	WG1010895	
1,2-Dichloropropane	U		0.0876	0.245	200	08/22/2017 04:27	WG1010895	
1,1-Dichloropropene	U		0.0775	0.245	200	08/22/2017 04:27	WG1010895	
1,3-Dichloropropane	U		0.0506	0.245	200	08/22/2017 04:27	WG1010895	
cis-1,3-Dichloropropene	U		0.0641	0.245	200	08/22/2017 04:27	WG1010895	
trans-1,3-Dichloropropene	U		0.0653	0.245	200	08/22/2017 04:27	WG1010895	
trans-1,4-Dichloro-2-butene	U		0.191	0.612	200	08/22/2017 04:27	WG1010895	
2,2-Dichloropropane	U		0.0683	0.245	200	08/22/2017 04:27	WG1010895	
Di-isopropyl ether	U		0.0607	0.245	200	08/22/2017 04:27	WG1010895	
Ethylbenzene	U		0.0727	0.245	200	08/22/2017 04:27	WG1010895	
Hexachloro-1,3-butadiene	U	UJ	J0	0.0837	0.245	200	08/22/2017 04:27	WG1010895
2-Hexanone	U		0.335	2.45	200	08/22/2017 04:27	WG1010895	
n-Hexane	U		0.0709	2.45	200	08/22/2017 04:27	WG1010895	



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.619	2.45	200	08/22/2017 04:27	WG1010895
Isopropylbenzene	U		0.0594	0.245	200	08/22/2017 04:27	WG1010895
p-Isopropyltoluene	0.0804	J J	0.0499	0.245	200	08/22/2017 04:27	WG1010895
2-Butanone (MEK)	U		1.14	2.45	200	08/22/2017 04:27	WG1010895
Methylene Chloride	U		0.245	1.22	200	08/22/2017 04:27	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.460	2.45	200	08/22/2017 04:27	WG1010895
Methyl tert-butyl ether	0.0801	J J	0.0519	0.245	200	08/22/2017 04:27	WG1010895
Naphthalene	U		0.245	1.22	200	08/22/2017 04:27	WG1010895
n-Propylbenzene	U		0.0504	0.245	200	08/22/2017 04:27	WG1010895
Styrene	U		0.0572	0.245	200	08/22/2017 04:27	WG1010895
1,1,1,2-Tetrachloroethane	U		0.0646	0.245	200	08/22/2017 04:27	WG1010895
1,1,2,2-Tetrachloroethane	U		0.0893	0.245	200	08/22/2017 04:27	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.0893	0.245	200	08/22/2017 04:27	WG1010895
Tetrachloroethene	114		3.38	12.2	10000	08/23/2017 15:19	WG1010895
Toluene	U		0.106	1.22	200	08/22/2017 04:27	WG1010895
1,2,3-Trichlorobenzene	U	UJ JO	0.0749	0.245	200	08/22/2017 04:27	WG1010895
1,2,4-Trichlorobenzene	U	UJ JO	0.0949	0.245	200	08/22/2017 04:27	WG1010895
1,1,1-Trichloroethane	U		0.0700	0.245	200	08/22/2017 04:27	WG1010895
1,1,2-Trichloroethane	U		0.0678	0.245	200	08/22/2017 04:27	WG1010895
Trichloroethene	0.988		0.0683	0.245	200	08/22/2017 04:27	WG1010895
Trichlorofluoromethane	U		0.0935	1.22	200	08/22/2017 04:27	WG1010895
1,2,3-Trichloropropane	U		0.181	0.612	200	08/22/2017 04:27	WG1010895
1,2,4-Trimethylbenzene	U		0.0516	0.245	200	08/22/2017 04:27	WG1010895
1,2,3-Trimethylbenzene	U		0.0702	0.245	200	08/22/2017 04:27	WG1010895
1,3,5-Trimethylbenzene	U		0.0651	0.245	200	08/22/2017 04:27	WG1010895
Vinyl acetate	U		0.585	2.45	200	08/22/2017 04:27	WG1010895
Vinyl chloride	U		0.0712	0.245	200	08/22/2017 04:27	WG1010895
Xylenes, Total	U		0.171	0.734	200	08/22/2017 04:27	WG1010895
(S) Toluene-d8	97.9			80.0-120		08/22/2017 04:27	WG1010895
(S) Toluene-d8	103			80.0-120		08/23/2017 15:19	WG1010895
(S) Toluene-d8	101			80.0-120		08/23/2017 04:18	WG1010895
(S) Dibromofluoromethane	103			74.0-131		08/23/2017 04:18	WG1010895
(S) Dibromofluoromethane	95.8			74.0-131		08/23/2017 15:19	WG1010895
(S) Dibromofluoromethane	110			74.0-131		08/22/2017 04:27	WG1010895
(S) 4-Bromofluorobenzene	104			64.0-132		08/23/2017 04:18	WG1010895
(S) 4-Bromofluorobenzene	100			64.0-132		08/23/2017 15:19	WG1010895
(S) 4-Bromofluorobenzene	104			64.0-132		08/22/2017 04:27	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.6		1	08/21/2017 09:20	WG1011913

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	387	J	20.1	59.1	500	08/22/2017 15:49	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-120		08/22/2017 15:49	WG1011634

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		59.1	296	5000	08/22/2017 04:48	WG1010895
Acrylonitrile	U		10.6	59.1	5000	08/22/2017 04:48	WG1010895
Benzene	U		1.60	5.91	5000	08/22/2017 04:48	WG1010895
Bromobenzene	U		1.68	5.91	5000	08/22/2017 04:48	WG1010895
Bromodichloromethane	U		1.50	5.91	5000	08/22/2017 04:48	WG1010895
Bromochloromethane	U		2.31	29.6	5000	08/22/2017 04:48	WG1010895
Bromoform	U		2.51	5.91	5000	08/22/2017 04:48	WG1010895
Bromomethane	U		7.92	29.6	5000	08/22/2017 04:48	WG1010895
n-Butylbenzene	U		1.53	5.91	5000	08/22/2017 04:48	WG1010895
sec-Butylbenzene	U		1.18	5.91	5000	08/22/2017 04:48	WG1010895
tert-Butylbenzene	U		1.22	5.91	5000	08/22/2017 04:48	WG1010895
Carbon disulfide	U		1.30	5.91	5000	08/22/2017 04:48	WG1010895
Carbon tetrachloride	U		1.94	5.91	5000	08/22/2017 04:48	WG1010895
Chlorobenzene	U		1.25	5.91	5000	08/22/2017 04:48	WG1010895
Chlorodibromomethane	U		2.20	5.91	5000	08/22/2017 04:48	WG1010895
Chloroethane	U		5.59	29.6	5000	08/22/2017 04:48	WG1010895
Chloroform	U		1.35	29.6	5000	08/22/2017 04:48	WG1010895
Chloromethane	U		2.22	14.8	5000	08/22/2017 04:48	WG1010895
2-Chlorotoluene	U		1.77	5.91	5000	08/22/2017 04:48	WG1010895
4-Chlorotoluene	U		1.42	5.91	5000	08/22/2017 04:48	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	6.21	29.6	5000	08/22/2017 04:48	WG1010895
1,2-Dibromoethane	U		2.03	5.91	5000	08/22/2017 04:48	WG1010895
Dibromomethane	U		2.26	5.91	5000	08/22/2017 04:48	WG1010895
1,2-Dichlorobenzene	U		1.80	5.91	5000	08/22/2017 04:48	WG1010895
1,3-Dichlorobenzene	U		1.42	5.91	5000	08/22/2017 04:48	WG1010895
1,4-Dichlorobenzene	U		1.34	5.91	5000	08/22/2017 04:48	WG1010895
Dichlorodifluoromethane	U		4.21	29.6	5000	08/22/2017 04:48	WG1010895
1,1-Dichloroethane	U		1.18	5.91	5000	08/22/2017 04:48	WG1010895
1,2-Dichloroethane	U		1.56	5.91	5000	08/22/2017 04:48	WG1010895
1,1-Dichloroethene	U		1.80	5.91	5000	08/22/2017 04:48	WG1010895
cis-1,2-Dichloroethene	U		1.40	5.91	5000	08/23/2017 04:41	WG1010895
trans-1,2-Dichloroethene	U		1.56	5.91	5000	08/22/2017 04:48	WG1010895
1,2-Dichloropropane	U		2.12	5.91	5000	08/22/2017 04:48	WG1010895
1,1-Dichloropropene	U		1.87	5.91	5000	08/22/2017 04:48	WG1010895
1,3-Dichloropropane	U		1.23	5.91	5000	08/22/2017 04:48	WG1010895
cis-1,3-Dichloropropene	U		1.55	5.91	5000	08/22/2017 04:48	WG1010895
trans-1,3-Dichloropropene	U		1.58	5.91	5000	08/22/2017 04:48	WG1010895
trans-1,4-Dichloro-2-butene	U		4.60	14.8	5000	08/22/2017 04:48	WG1010895
2,2-Dichloropropane	U		1.66	5.91	5000	08/22/2017 04:48	WG1010895
Di-isopropyl ether	U		1.47	5.91	5000	08/22/2017 04:48	WG1010895
Ethylbenzene	U		1.75	5.91	5000	08/22/2017 04:48	WG1010895
Hexachloro-1,3-butadiene	U	UJ	2.02	5.91	5000	08/22/2017 04:48	WG1010895
2-Hexanone	U		8.10	59.1	5000	08/22/2017 04:48	WG1010895
n-Hexane	U		1.71	59.1	5000	08/22/2017 04:48	WG1010895

6 Qc

7 Gl

8 Al

9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		14.9	59.1	5000	08/22/2017 04:48	WG1010895
Isopropylbenzene	U		1.44	5.91	5000	08/22/2017 04:48	WG1010895
p-Isopropyltoluene	U		1.21	5.91	5000	08/22/2017 04:48	WG1010895
2-Butanone (MEK)	U		27.7	59.1	5000	08/22/2017 04:48	WG1010895
Methylene Chloride	U		5.91	29.6	5000	08/22/2017 04:48	WG1010895
4-Methyl-2-pentanone (MIBK)	U		11.1	59.1	5000	08/22/2017 04:48	WG1010895
Methyl tert-butyl ether	U		1.25	5.91	5000	08/22/2017 04:48	WG1010895
Naphthalene	U		5.91	29.6	5000	08/22/2017 04:48	WG1010895
n-Propylbenzene	U		1.22	5.91	5000	08/22/2017 04:48	WG1010895
Styrene	U		1.38	5.91	5000	08/22/2017 04:48	WG1010895
1,1,1,2-Tetrachloroethane	U		1.56	5.91	5000	08/22/2017 04:48	WG1010895
1,1,2,2-Tetrachloroethane	U		2.15	5.91	5000	08/22/2017 04:48	WG1010895
1,1,2-Trichlorotrifluoroethane	U		2.15	5.91	5000	08/22/2017 04:48	WG1010895
Tetrachloroethene	691		1.63	5.91	5000	08/22/2017 04:48	WG1010895
Toluene	U		2.57	29.6	5000	08/22/2017 04:48	WG1010895
1,2,3-Trichlorobenzene	U	UJ	1.81	5.91	5000	08/22/2017 04:48	WG1010895
1,2,4-Trichlorobenzene	U	UJ	2.29	5.91	5000	08/22/2017 04:48	WG1010895
1,1,1-Trichloroethane	U		1.69	5.91	5000	08/22/2017 04:48	WG1010895
1,1,2-Trichloroethane	U		1.63	5.91	5000	08/22/2017 04:48	WG1010895
Trichloroethene	U		1.66	5.91	5000	08/22/2017 04:48	WG1010895
Trichlorofluoromethane	U		2.26	29.6	5000	08/22/2017 04:48	WG1010895
1,2,3-Trichloropropane	U		4.38	14.8	5000	08/22/2017 04:48	WG1010895
1,2,4-Trimethylbenzene	U		1.25	5.91	5000	08/22/2017 04:48	WG1010895
1,2,3-Trimethylbenzene	U		1.70	5.91	5000	08/22/2017 04:48	WG1010895
1,3,5-Trimethylbenzene	U		1.57	5.91	5000	08/22/2017 04:48	WG1010895
Vinyl acetate	U		14.2	59.1	5000	08/22/2017 04:48	WG1010895
Vinyl chloride	U		1.73	5.91	5000	08/22/2017 04:48	WG1010895
Xylenes, Total	U		4.13	17.7	5000	08/22/2017 04:48	WG1010895
(S) Toluene-d8	101			80.0-120		08/23/2017 04:41	WG1010895
(S) Toluene-d8	103			80.0-120		08/22/2017 04:48	WG1010895
(S) Dibromofluoromethane	109			74.0-131		08/22/2017 04:48	WG1010895
(S) Dibromofluoromethane	107			74.0-131		08/23/2017 04:41	WG1010895
(S) 4-Bromofluorobenzene	103			64.0-132		08/22/2017 04:48	WG1010895
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 04:41	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/21/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.4		1	08/21/2017 09:20	WG1011913

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	7.21	J	0.0392	0.116	1	08/19/2017 19:38	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	97.4			77.0-120		08/19/2017 19:38	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0188	J	0.0116	0.0579	1	08/22/2017 05:08	WG1010895
Acrylonitrile	U		0.00207	0.0116	1	08/22/2017 05:08	WG1010895
Benzene	U		0.000313	0.00116	1	08/22/2017 05:08	WG1010895
Bromobenzene	U		0.000329	0.00116	1	08/22/2017 05:08	WG1010895
Bromodichloromethane	U		0.000294	0.00116	1	08/22/2017 05:08	WG1010895
Bromochloromethane	U		0.000451	0.00579	1	08/22/2017 05:08	WG1010895
Bromoform	U		0.000491	0.00116	1	08/22/2017 05:08	WG1010895
Bromomethane	U		0.00155	0.00579	1	08/22/2017 05:08	WG1010895
n-Butylbenzene	U		0.000299	0.00116	1	08/22/2017 05:08	WG1010895
sec-Butylbenzene	U		0.000233	0.00116	1	08/22/2017 05:08	WG1010895
tert-Butylbenzene	U		0.000238	0.00116	1	08/22/2017 05:08	WG1010895
Carbon disulfide	0.00554		0.000256	0.00116	1	08/22/2017 05:08	WG1010895
Carbon tetrachloride	U		0.000380	0.00116	1	08/22/2017 05:08	WG1010895
Chlorobenzene	U		0.000245	0.00116	1	08/22/2017 05:08	WG1010895
Chlorodibromomethane	U		0.000432	0.00116	1	08/22/2017 05:08	WG1010895
Chloroethane	U		0.00109	0.00579	1	08/22/2017 05:08	WG1010895
Chloroform	U		0.000265	0.00579	1	08/22/2017 05:08	WG1010895
Chloromethane	U		0.000434	0.00289	1	08/22/2017 05:08	WG1010895
2-Chlorotoluene	U		0.000348	0.00116	1	08/22/2017 05:08	WG1010895
4-Chlorotoluene	U		0.000278	0.00116	1	08/22/2017 05:08	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00122	0.00579	1	08/22/2017 05:08	WG1010895
1,2-Dibromoethane	U		0.000397	0.00116	1	08/22/2017 05:08	WG1010895
Dibromomethane	U		0.000442	0.00116	1	08/22/2017 05:08	WG1010895
1,2-Dichlorobenzene	U		0.000353	0.00116	1	08/22/2017 05:08	WG1010895
1,3-Dichlorobenzene	U		0.000277	0.00116	1	08/22/2017 05:08	WG1010895
1,4-Dichlorobenzene	U		0.000262	0.00116	1	08/22/2017 05:08	WG1010895
Dichlorodifluoromethane	U		0.000825	0.00579	1	08/22/2017 05:08	WG1010895
1,1-Dichloroethane	U		0.000230	0.00116	1	08/22/2017 05:08	WG1010895
1,2-Dichloroethane	U		0.000307	0.00116	1	08/22/2017 05:08	WG1010895
1,1-Dichloroethene	0.00832		0.000351	0.00116	1	08/22/2017 05:08	WG1010895
cis-1,2-Dichloroethene	1.41		0.0681	0.289	250	08/23/2017 05:02	WG1010895
trans-1,2-Dichloroethene	0.00123		0.000306	0.00116	1	08/22/2017 05:08	WG1010895
1,2-Dichloropropane	U		0.000414	0.00116	1	08/22/2017 05:08	WG1010895
1,1-Dichloropropene	U		0.000367	0.00116	1	08/22/2017 05:08	WG1010895
1,3-Dichloropropane	U		0.000240	0.00116	1	08/22/2017 05:08	WG1010895
cis-1,3-Dichloropropene	U		0.000303	0.00116	1	08/22/2017 05:08	WG1010895
trans-1,3-Dichloropropene	U		0.000309	0.00116	1	08/22/2017 05:08	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000901	0.00289	1	08/22/2017 05:08	WG1010895
2,2-Dichloropropane	U		0.000323	0.00116	1	08/22/2017 05:08	WG1010895
Di-isopropyl ether	U		0.000287	0.00116	1	08/22/2017 05:08	WG1010895
Ethylbenzene	U		0.000344	0.00116	1	08/22/2017 05:08	WG1010895
Hexachloro-1,3-butadiene	U	UJ	0.000396	0.00116	1	08/22/2017 05:08	WG1010895
2-Hexanone	U		0.00159	0.0116	1	08/22/2017 05:08	WG1010895
n-Hexane	0.000897	J	0.000336	0.0116	1	08/22/2017 05:08	WG1010895

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00293	0.0116	1	08/22/2017 05:08	WG1010895
Isopropylbenzene	U		0.000281	0.00116	1	08/22/2017 05:08	WG1010895
p-Isopropyltoluene	U		0.000236	0.00116	1	08/22/2017 05:08	WG1010895
2-Butanone (MEK)	U		0.00542	0.0116	1	08/22/2017 05:08	WG1010895
Methylene Chloride	U		0.00116	0.00579	1	08/22/2017 05:08	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00218	0.0116	1	08/22/2017 05:08	WG1010895
Methyl tert-butyl ether	U		0.000245	0.00116	1	08/22/2017 05:08	WG1010895
Naphthalene	U		0.00116	0.00579	1	08/22/2017 05:08	WG1010895
n-Propylbenzene	U		0.000238	0.00116	1	08/22/2017 05:08	WG1010895
Styrene	U		0.000271	0.00116	1	08/22/2017 05:08	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000306	0.00116	1	08/22/2017 05:08	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000422	0.00116	1	08/22/2017 05:08	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000422	0.00116	1	08/22/2017 05:08	WG1010895
Tetrachloroethene	36.0		0.0799	0.289	250	08/23/2017 05:02	WG1010895
Toluene	U		0.000502	0.00579	1	08/22/2017 05:08	WG1010895
1,2,3-Trichlorobenzene	U	UJ	0.000354	0.00116	1	08/22/2017 05:08	WG1010895
1,2,4-Trichlorobenzene	U	UJ	0.000449	0.00116	1	08/22/2017 05:08	WG1010895
1,1,1-Trichloroethane	U		0.000331	0.00116	1	08/22/2017 05:08	WG1010895
1,1,2-Trichloroethane	U		0.000321	0.00116	1	08/22/2017 05:08	WG1010895
Trichloroethene	2.96		0.0808	0.289	250	08/23/2017 05:02	WG1010895
Trichlorofluoromethane	U		0.000442	0.00579	1	08/22/2017 05:08	WG1010895
1,2,3-Trichloropropane	U		0.000858	0.00289	1	08/22/2017 05:08	WG1010895
1,2,4-Trimethylbenzene	U		0.000244	0.00116	1	08/22/2017 05:08	WG1010895
1,2,3-Trimethylbenzene	U		0.000332	0.00116	1	08/22/2017 05:08	WG1010895
1,3,5-Trimethylbenzene	U		0.000308	0.00116	1	08/22/2017 05:08	WG1010895
Vinyl acetate	U		0.00277	0.0116	1	08/22/2017 05:08	WG1010895
Vinyl chloride	0.00631		0.000337	0.00116	1	08/22/2017 05:08	WG1010895
Xylenes, Total	U		0.000808	0.00347	1	08/22/2017 05:08	WG1010895
(S) Toluene-d8	98.8			80.0-120		08/23/2017 05:02	WG1010895
(S) Toluene-d8	93.1			80.0-120		08/22/2017 05:08	WG1010895
(S) Dibromofluoromethane	112			74.0-131		08/22/2017 05:08	WG1010895
(S) Dibromofluoromethane	105			74.0-131		08/23/2017 05:02	WG1010895
(S) 4-Bromofluorobenzene	109			64.0-132		08/22/2017 05:08	WG1010895
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 05:02	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	2990	J	31.6	100	1	08/20/2017 22:48	WG1011763
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-122		08/20/2017 22:48	WG1011763

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	
	ug/l		ug/l	ug/l		date / time		
Acetone	6.79	J	<u>J JO J3</u>	1.05	25.0	1	08/18/2017 03:30	WG1010972
Acrylonitrile	U		0.873	5.00	1	08/18/2017 03:30	WG1010972	
Benzene	0.808		0.0896	0.500	1	08/18/2017 03:30	WG1010972	
Bromobenzene	U		0.133	0.500	1	08/18/2017 03:30	WG1010972	
Bromodichloromethane	U		0.0800	0.500	1	08/18/2017 03:30	WG1010972	
Bromochloromethane	U		0.145	0.500	1	08/18/2017 03:30	WG1010972	
Bromoform	U		0.186	0.500	1	08/18/2017 03:30	WG1010972	
Bromomethane	U		0.157	2.50	1	08/18/2017 03:30	WG1010972	
n-Butylbenzene	U		0.143	0.500	1	08/18/2017 03:30	WG1010972	
sec-Butylbenzene	U		0.134	0.500	1	08/18/2017 03:30	WG1010972	
tert-Butylbenzene	U		0.183	0.500	1	08/18/2017 03:30	WG1010972	
Carbon disulfide	U		0.101	0.500	1	08/18/2017 03:30	WG1010972	
Carbon tetrachloride	U		0.159	0.500	1	08/18/2017 03:30	WG1010972	
Chlorobenzene	U		0.140	0.500	1	08/18/2017 03:30	WG1010972	
Chlorodibromomethane	U		0.128	0.500	1	08/18/2017 03:30	WG1010972	
Chloroethane	U		0.141	2.50	1	08/18/2017 03:30	WG1010972	
Chloroform	U		0.0860	0.500	1	08/18/2017 03:30	WG1010972	
Chloromethane	U		0.153	1.25	1	08/18/2017 03:30	WG1010972	
2-Chlorotoluene	U		0.111	0.500	1	08/18/2017 03:30	WG1010972	
4-Chlorotoluene	U		0.0972	0.500	1	08/18/2017 03:30	WG1010972	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/18/2017 03:30	WG1010972	
1,2-Dibromoethane	U		0.193	0.500	1	08/18/2017 03:30	WG1010972	
Dibromomethane	U		0.117	0.500	1	08/18/2017 03:30	WG1010972	
1,2-Dichlorobenzene	U		0.101	0.500	1	08/18/2017 03:30	WG1010972	
1,3-Dichlorobenzene	U		0.130	0.500	1	08/18/2017 03:30	WG1010972	
1,4-Dichlorobenzene	U		0.121	0.500	1	08/18/2017 03:30	WG1010972	
Dichlorodifluoromethane	U	UJ	<u>JO</u>	0.127	2.50	1	08/18/2017 03:30	WG1010972
1,1-Dichloroethane	0.274	J	<u>J</u>	0.114	0.500	1	08/18/2017 03:30	WG1010972
1,2-Dichloroethane	U		0.108	0.500	1	08/18/2017 03:30	WG1010972	
1,1-Dichloroethene	37.2		0.188	0.500	1	08/18/2017 03:30	WG1010972	
cis-1,2-Dichloroethene	182		18.7	100	200	08/22/2017 03:34	WG1010972	
trans-1,2-Dichloroethene	3.00		0.152	0.500	1	08/18/2017 03:30	WG1010972	
1,2-Dichloropropane	U		0.190	0.500	1	08/18/2017 03:30	WG1010972	
1,1-Dichloropropene	U		0.128	0.500	1	08/18/2017 03:30	WG1010972	
1,3-Dichloropropane	U		0.147	1.00	1	08/18/2017 03:30	WG1010972	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/18/2017 03:30	WG1010972	
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/18/2017 03:30	WG1010972	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/18/2017 03:30	WG1010972	
2,2-Dichloropropane	U		0.0929	0.500	1	08/18/2017 03:30	WG1010972	
Di-isopropyl ether	U		0.0924	0.500	1	08/18/2017 03:30	WG1010972	
Ethylbenzene	0.228	J	<u>J</u>	0.158	0.500	1	08/18/2017 03:30	WG1010972
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/18/2017 03:30	WG1010972	
2-Hexanone	U		0.757	5.00	1	08/18/2017 03:30	WG1010972	
n-Hexane	1.24	J	<u>J</u>	0.305	5.00	1	08/18/2017 03:30	WG1010972
Iodomethane	U		0.377	10.0	1	08/18/2017 03:30	WG1010972	
Isopropylbenzene	U		0.126	0.500	1	08/18/2017 03:30	WG1010972	
p-Isopropyltoluene	U		0.138	0.500	1	08/18/2017 03:30	WG1010972	
2-Butanone (MEK)	2.20	J	<u>J JO</u>	1.28	5.00	1	08/18/2017 03:30	WG1010972

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	08/18/2017 03:30	WG1010972
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/18/2017 03:30	WG1010972
Methyl tert-butyl ether	U		0.102	0.500	1	08/18/2017 03:30	WG1010972
Naphthalene	0.401	J U	0.174	2.50	1	08/18/2017 03:30	WG1010972
n-Propylbenzene	U		0.162	0.500	1	08/18/2017 03:30	WG1010972
Styrene	U		0.117	0.500	1	08/18/2017 03:30	WG1010972
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/18/2017 03:30	WG1010972
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/18/2017 03:30	WG1010972
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/18/2017 03:30	WG1010972
Tetrachloroethene	6690		39.8	100	200	08/22/2017 03:34	WG1010972
Toluene	774		82.4	100	200	08/22/2017 03:34	WG1010972
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/18/2017 03:30	WG1010972
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/18/2017 03:30	WG1010972
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/18/2017 03:30	WG1010972
1,1,2-Trichloroethane	U		0.186	0.500	1	08/18/2017 03:30	WG1010972
Trichloroethene	797		30.6	100	200	08/22/2017 03:34	WG1010972
Trichlorofluoromethane	U		0.130	2.50	1	08/18/2017 03:30	WG1010972
1,2,3-Trichloropropane	U		0.247	2.50	1	08/18/2017 03:30	WG1010972
1,2,4-Trimethylbenzene	0.151	J U	0.123	0.500	1	08/18/2017 03:30	WG1010972
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/18/2017 03:30	WG1010972
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/18/2017 03:30	WG1010972
Vinyl acetate	U		0.645	5.00	1	08/18/2017 03:30	WG1010972
Vinyl chloride	46.2		0.118	0.500	1	08/18/2017 03:30	WG1010972
Xylenes, Total	0.708	J U	0.316	1.50	1	08/18/2017 03:30	WG1010972
(S) Toluene-d8	116			80.0-120		08/18/2017 03:30	WG1010972
(S) Toluene-d8	108			80.0-120		08/22/2017 03:34	WG1010972
(S) Dibromofluoromethane	88.7			76.0-123		08/22/2017 03:34	WG1010972
(S) Dibromofluoromethane	98.6			76.0-123		08/18/2017 03:30	WG1010972
(S) 4-Bromofluorobenzene	101			80.0-120		08/22/2017 03:34	WG1010972
(S) 4-Bromofluorobenzene	106			80.0-120		08/18/2017 03:30	WG1010972

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
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- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.0		1	08/21/2017 09:45	WG1011920

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0394	0.116	1	08/19/2017 20:00	WG1011634
(S) a,a,a-Trifluorotoluene(FID)	95.9			77.0-120		08/19/2017 20:00	WG1011634

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0116	0.0582	1	08/19/2017 01:12	WG1011219
Acrylonitrile	U		0.00208	0.0116	1	08/19/2017 01:12	WG1011219
Benzene	U		0.000314	0.00116	1	08/19/2017 01:12	WG1011219
Bromobenzene	U		0.000330	0.00116	1	08/19/2017 01:12	WG1011219
Bromodichloromethane	U		0.000295	0.00116	1	08/19/2017 01:12	WG1011219
Bromochloromethane	U		0.000454	0.00582	1	08/19/2017 01:12	WG1011219
Bromoform	U		0.000493	0.00116	1	08/19/2017 01:12	WG1011219
Bromomethane	U	UJ	0.00156	0.00582	1	08/19/2017 01:12	WG1011219
n-Butylbenzene	U		0.000300	0.00116	1	08/19/2017 01:12	WG1011219
sec-Butylbenzene	U		0.000234	0.00116	1	08/19/2017 01:12	WG1011219
tert-Butylbenzene	U		0.000240	0.00116	1	08/19/2017 01:12	WG1011219
Carbon disulfide	0.000728	J	0.000257	0.00116	1	08/19/2017 01:12	WG1011219
Carbon tetrachloride	U		0.000382	0.00116	1	08/19/2017 01:12	WG1011219
Chlorobenzene	U		0.000247	0.00116	1	08/19/2017 01:12	WG1011219
Chlorodibromomethane	U		0.000434	0.00116	1	08/19/2017 01:12	WG1011219
Chloroethane	U		0.00110	0.00582	1	08/19/2017 01:12	WG1011219
Chloroform	U		0.000266	0.00582	1	08/19/2017 01:12	WG1011219
Chloromethane	U		0.000436	0.00291	1	08/19/2017 01:12	WG1011219
2-Chlorotoluene	U		0.000350	0.00116	1	08/19/2017 01:12	WG1011219
4-Chlorotoluene	U		0.000279	0.00116	1	08/19/2017 01:12	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00122	0.00582	1	08/19/2017 01:12	WG1011219
1,2-Dibromoethane	U		0.000399	0.00116	1	08/19/2017 01:12	WG1011219
Dibromomethane	U		0.000444	0.00116	1	08/19/2017 01:12	WG1011219
1,2-Dichlorobenzene	U		0.000355	0.00116	1	08/19/2017 01:12	WG1011219
1,3-Dichlorobenzene	U		0.000278	0.00116	1	08/19/2017 01:12	WG1011219
1,4-Dichlorobenzene	U		0.000263	0.00116	1	08/19/2017 01:12	WG1011219
Dichlorodifluoromethane	U		0.000829	0.00582	1	08/19/2017 01:12	WG1011219
1,1-Dichloroethane	U		0.000232	0.00116	1	08/19/2017 01:12	WG1011219
1,2-Dichloroethane	U		0.000308	0.00116	1	08/19/2017 01:12	WG1011219
1,1-Dichloroethene	U		0.000352	0.00116	1	08/19/2017 01:12	WG1011219
cis-1,2-Dichloroethene	0.00191		0.000273	0.00116	1	08/19/2017 01:12	WG1011219
trans-1,2-Dichloroethene	U		0.000307	0.00116	1	08/19/2017 01:12	WG1011219
1,2-Dichloropropane	U		0.000416	0.00116	1	08/19/2017 01:12	WG1011219
1,1-Dichloropropene	U		0.000369	0.00116	1	08/19/2017 01:12	WG1011219
1,3-Dichloropropane	U		0.000241	0.00116	1	08/19/2017 01:12	WG1011219
cis-1,3-Dichloropropene	U		0.000305	0.00116	1	08/19/2017 01:12	WG1011219
trans-1,3-Dichloropropene	U		0.000311	0.00116	1	08/19/2017 01:12	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000905	0.00291	1	08/19/2017 01:12	WG1011219
2,2-Dichloropropane	U	UJ	0.000325	0.00116	1	08/19/2017 01:12	WG1011219
Di-isopropyl ether	U		0.000289	0.00116	1	08/19/2017 01:12	WG1011219
Ethylbenzene	U		0.000346	0.00116	1	08/19/2017 01:12	WG1011219
Hexachloro-1,3-butadiene	U		0.000398	0.00116	1	08/19/2017 01:12	WG1011219
2-Hexanone	U		0.00159	0.0116	1	08/19/2017 01:12	WG1011219
n-Hexane	U		0.000337	0.0116	1	08/19/2017 01:12	WG1011219

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Iodomethane	U		0.00294	0.0116	1	08/19/2017 01:12	WG1011219	
Isopropylbenzene	U		0.000283	0.00116	1	08/19/2017 01:12	WG1011219	
p-Isopropyltoluene	U		0.000237	0.00116	1	08/19/2017 01:12	WG1011219	
2-Butanone (MEK)	U		0.00544	0.0116	1	08/19/2017 01:12	WG1011219	
Methylene Chloride	U		0.00116	0.00582	1	08/19/2017 01:12	WG1011219	
4-Methyl-2-pentanone (MIBK)	U		0.00219	0.0116	1	08/19/2017 01:12	WG1011219	
Methyl tert-butyl ether	U		0.000247	0.00116	1	08/19/2017 01:12	WG1011219	
Naphthalene	U		0.00116	0.00582	1	08/19/2017 01:12	WG1011219	
n-Propylbenzene	U		0.000240	0.00116	1	08/19/2017 01:12	WG1011219	
Styrene	U		0.000272	0.00116	1	08/19/2017 01:12	WG1011219	
1,1,1,2-Tetrachloroethane	U		0.000307	0.00116	1	08/19/2017 01:12	WG1011219	
1,1,2,2-Tetrachloroethane	U		0.000425	0.00116	1	08/19/2017 01:12	WG1011219	
1,1,2-Trichlorotrifluoroethane	U	UJ	JO	0.000425	0.00116	1	08/19/2017 01:12	WG1011219
Tetrachloroethene	0.0468	J	JO J4	0.000321	0.00116	1	08/19/2017 01:12	WG1011219
Toluene	U		0.000505	0.00582	1	08/19/2017 01:12	WG1011219	
1,2,3-Trichlorobenzene	U		0.000356	0.00116	1	08/19/2017 01:12	WG1011219	
1,2,4-Trichlorobenzene	U		0.000451	0.00116	1	08/19/2017 01:12	WG1011219	
1,1,1-Trichloroethane	U		0.000333	0.00116	1	08/19/2017 01:12	WG1011219	
1,1,2-Trichloroethane	U		0.000322	0.00116	1	08/19/2017 01:12	WG1011219	
Trichloroethene	0.000647	J	J	0.000325	0.00116	1	08/19/2017 01:12	WG1011219
Trichlorofluoromethane	U		0.000444	0.00582	1	08/19/2017 01:12	WG1011219	
1,2,3-Trichloropropane	U		0.000862	0.00291	1	08/19/2017 01:12	WG1011219	
1,2,4-Trimethylbenzene	U		0.000245	0.00116	1	08/19/2017 01:12	WG1011219	
1,2,3-Trimethylbenzene	U		0.000334	0.00116	1	08/19/2017 01:12	WG1011219	
1,3,5-Trimethylbenzene	U		0.000309	0.00116	1	08/19/2017 01:12	WG1011219	
Vinyl acetate	U		0.00278	0.0116	1	08/19/2017 01:12	WG1011219	
Vinyl chloride	U		0.000339	0.00116	1	08/19/2017 01:12	WG1011219	
Xylenes, Total	U		0.000812	0.00349	1	08/19/2017 01:12	WG1011219	
(S) Toluene-d8	112			80.0-120		08/19/2017 01:12	WG1011219	
(S) Dibromofluoromethane	105			74.0-131		08/19/2017 01:12	WG1011219	
(S) 4-Bromofluorobenzene	103			64.0-132		08/19/2017 01:12	WG1011219	

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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PES Environmental, Inc.- WA

Sample Delivery Group: L929901
Samples Received: 08/16/2017
Project Number: 1413.001.02.602
Description: American Linen Project
Site: 1413.001.02.602
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161










Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



B-206-15 L929901-01 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 10:25
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011913	1	08/21/17 09:09	08/21/17 09:20	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011760	1	08/14/17 10:25	08/20/17 14:59	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	25	08/14/17 10:25	08/23/17 01:30	ACG

1
Cp

2
Tc

3
Ss

4
Cn

B-206-30 L929901-02 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 10:55
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011913	1	08/21/17 09:09	08/21/17 09:20	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011760	1	08/14/17 10:55	08/20/17 15:21	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	1	08/14/17 10:55	08/22/17 09:23	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	500	08/14/17 10:55	08/23/17 14:58	ACG

5
Sr

6
Qc

7
Gl

B-206-40 L929901-03 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 11:20
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011914	1	08/21/17 08:53	08/21/17 09:08	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011760	1	08/14/17 11:20	08/20/17 15:43	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	1	08/14/17 11:20	08/22/17 09:44	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010895	25.25	08/14/17 11:20	08/23/17 14:38	ACG

8
Al

9
Sc

B-206-49 L929901-04 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 12:00
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011914	1	08/21/17 08:53	08/21/17 09:08	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011760	1	08/14/17 12:00	08/20/17 16:05	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/14/17 12:00	08/23/17 01:56	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	100	08/14/17 12:00	08/23/17 14:22	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	730	08/14/17 12:00	08/23/17 16:39	ACG

B-206-52 L929901-05 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 14:15
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011914	1	08/21/17 08:53	08/21/17 09:08	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011760	1	08/14/17 14:15	08/20/17 16:28	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/14/17 14:15	08/23/17 02:16	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	25	08/14/17 14:15	08/23/17 16:20	ACG

B-206-56 L929901-06 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 14:05
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011914	1	08/21/17 08:53	08/21/17 09:08	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011760	1	08/14/17 14:05	08/20/17 16:50	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	1	08/14/17 14:05	08/19/17 01:31	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	41.5	08/14/17 14:05	08/20/17 19:28	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	500	08/14/17 14:05	08/22/17 03:29	LRL

SAMPLE SUMMARY



B-206-70 L929901-07 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 16:40
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011913	1	08/21/17 09:09	08/21/17 09:20	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011765	25.75	08/14/17 16:40	08/22/17 14:04	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	1	08/14/17 16:40	08/19/17 01:51	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	1	08/14/17 16:40	08/20/17 19:53	BMB

1
Cp

2
Tc

3
Ss

4
Cn

B-206-80 L929901-08 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 16:30
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011914	1	08/21/17 08:53	08/21/17 09:08	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011765	25	08/14/17 16:30	08/22/17 14:25	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	1	08/14/17 16:30	08/19/17 02:11	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	1	08/14/17 16:30	08/20/17 20:19	BMB

5
Sr

6
Qc

7
Gl

B-206-59 L929901-09 Solid

Collected by
K. Springstead
Collected date/time
08/14/17 13:50
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1011914	1	08/21/17 08:53	08/21/17 09:08	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011765	1	08/14/17 13:50	08/22/17 14:47	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011219	1	08/14/17 13:50	08/19/17 02:31	ACG

8
Al

9
Sc

TRIP BLANK-081417 L929901-10 GW

Collected by
K. Springstead
Collected date/time
08/14/17 00:00
Received date/time
08/16/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1011763	1	08/20/17 16:07	08/20/17 16:07	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1010972	1	08/17/17 22:38	08/17/17 22:38	BMB



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Sr
- ⁶Qc
- ⁷Gl
- ⁸Al
- ⁹Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.9		1	08/21/2017 09:20	WG1011913

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.243		0.0390	0.115	1	08/20/2017 14:59	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	91.1			77.0-120		08/20/2017 14:59	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.288	1.44	25	08/23/2017 01:30	WG1010895
Acrylonitrile	U		0.0516	0.288	25	08/23/2017 01:30	WG1010895
Benzene	U		0.00777	0.0288	25	08/23/2017 01:30	WG1010895
Bromobenzene	U		0.00817	0.0288	25	08/23/2017 01:30	WG1010895
Bromodichloromethane	U		0.00731	0.0288	25	08/23/2017 01:30	WG1010895
Bromochloromethane	U		0.0112	0.144	25	08/23/2017 01:30	WG1010895
Bromoform	U		0.0122	0.0288	25	08/23/2017 01:30	WG1010895
Bromomethane	U		0.0386	0.144	25	08/23/2017 01:30	WG1010895
n-Butylbenzene	U		0.00742	0.0288	25	08/23/2017 01:30	WG1010895
sec-Butylbenzene	U		0.00578	0.0288	25	08/23/2017 01:30	WG1010895
tert-Butylbenzene	U		0.00593	0.0288	25	08/23/2017 01:30	WG1010895
Carbon disulfide	U		0.00635	0.0288	25	08/23/2017 01:30	WG1010895
Carbon tetrachloride	U		0.00944	0.0288	25	08/23/2017 01:30	WG1010895
Chlorobenzene	U		0.00610	0.0288	25	08/23/2017 01:30	WG1010895
Chlorodibromomethane	U		0.0107	0.0288	25	08/23/2017 01:30	WG1010895
Chloroethane	U		0.0272	0.144	25	08/23/2017 01:30	WG1010895
Chloroform	U		0.00658	0.144	25	08/23/2017 01:30	WG1010895
Chloromethane	U		0.0108	0.0719	25	08/23/2017 01:30	WG1010895
2-Chlorotoluene	U		0.00865	0.0288	25	08/23/2017 01:30	WG1010895
4-Chlorotoluene	U		0.00690	0.0288	25	08/23/2017 01:30	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.0302	0.144	25	08/23/2017 01:30	WG1010895
1,2-Dibromoethane	U		0.00987	0.0288	25	08/23/2017 01:30	WG1010895
Dibromomethane	U		0.0110	0.0288	25	08/23/2017 01:30	WG1010895
1,2-Dichlorobenzene	U		0.00877	0.0288	25	08/23/2017 01:30	WG1010895
1,3-Dichlorobenzene	U		0.00688	0.0288	25	08/23/2017 01:30	WG1010895
1,4-Dichlorobenzene	U		0.00650	0.0288	25	08/23/2017 01:30	WG1010895
Dichlorodifluoromethane	U		0.0205	0.144	25	08/23/2017 01:30	WG1010895
1,1-Dichloroethane	U		0.00573	0.0288	25	08/23/2017 01:30	WG1010895
1,2-Dichloroethane	U		0.00762	0.0288	25	08/23/2017 01:30	WG1010895
1,1-Dichloroethene	U		0.00872	0.0288	25	08/23/2017 01:30	WG1010895
cis-1,2-Dichloroethene	0.306		0.00677	0.0288	25	08/23/2017 01:30	WG1010895
trans-1,2-Dichloroethene	0.00825	J	0.00760	0.0288	25	08/23/2017 01:30	WG1010895
1,2-Dichloropropane	U		0.0103	0.0288	25	08/23/2017 01:30	WG1010895
1,1-Dichloropropene	U		0.00911	0.0288	25	08/23/2017 01:30	WG1010895
1,3-Dichloropropane	U		0.00596	0.0288	25	08/23/2017 01:30	WG1010895
cis-1,3-Dichloropropene	U		0.00754	0.0288	25	08/23/2017 01:30	WG1010895
trans-1,3-Dichloropropene	U		0.00769	0.0288	25	08/23/2017 01:30	WG1010895
trans-1,4-Dichloro-2-butene	U		0.0223	0.0719	25	08/23/2017 01:30	WG1010895
2,2-Dichloropropane	U		0.00803	0.0288	25	08/23/2017 01:30	WG1010895
Di-isopropyl ether	U		0.00714	0.0288	25	08/23/2017 01:30	WG1010895
Ethylbenzene	U		0.00854	0.0288	25	08/23/2017 01:30	WG1010895
Hexachloro-1,3-butadiene	U		0.00984	0.0288	25	08/23/2017 01:30	WG1010895
2-Hexanone	U		0.0394	0.288	25	08/23/2017 01:30	WG1010895
n-Hexane	0.0395	J	0.00834	0.288	25	08/23/2017 01:30	WG1010895

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/14/17 10:25

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.0727	0.288	25	08/23/2017 01:30	WG1010895
Isopropylbenzene	U		0.00700	0.0288	25	08/23/2017 01:30	WG1010895
p-Isopropyltoluene	U		0.00587	0.0288	25	08/23/2017 01:30	WG1010895
2-Butanone (MEK)	U		0.135	0.288	25	08/23/2017 01:30	WG1010895
Methylene Chloride	U		0.0288	0.144	25	08/23/2017 01:30	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.0541	0.288	25	08/23/2017 01:30	WG1010895
Methyl tert-butyl ether	0.145		0.00610	0.0288	25	08/23/2017 01:30	WG1010895
Naphthalene	U		0.0288	0.144	25	08/23/2017 01:30	WG1010895
n-Propylbenzene	U		0.00593	0.0288	25	08/23/2017 01:30	WG1010895
Styrene	U		0.00673	0.0288	25	08/23/2017 01:30	WG1010895
1,1,1-Tetrachloroethane	U		0.00760	0.0288	25	08/23/2017 01:30	WG1010895
1,1,2-Tetrachloroethane	U		0.0105	0.0288	25	08/23/2017 01:30	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.0105	0.0288	25	08/23/2017 01:30	WG1010895
Tetrachloroethene	0.0715		0.00794	0.0288	25	08/23/2017 01:30	WG1010895
Toluene	U		0.0124	0.144	25	08/23/2017 01:30	WG1010895
1,2,3-Trichlorobenzene	U		0.00880	0.0288	25	08/23/2017 01:30	WG1010895
1,2,4-Trichlorobenzene	U		0.0112	0.0288	25	08/23/2017 01:30	WG1010895
1,1,1-Trichloroethane	U		0.00823	0.0288	25	08/23/2017 01:30	WG1010895
1,1,2-Trichloroethane	U		0.00796	0.0288	25	08/23/2017 01:30	WG1010895
Trichloroethene	0.00831	U	0.00803	0.0288	25	08/23/2017 01:30	WG1010895
Trichlorofluoromethane	U		0.0110	0.144	25	08/23/2017 01:30	WG1010895
1,2,3-Trichloropropane	U		0.0213	0.0719	25	08/23/2017 01:30	WG1010895
1,2,4-Trimethylbenzene	0.0151	U	0.00608	0.0288	25	08/23/2017 01:30	WG1010895
1,2,3-Trimethylbenzene	U		0.00826	0.0288	25	08/23/2017 01:30	WG1010895
1,3,5-Trimethylbenzene	U		0.00765	0.0288	25	08/23/2017 01:30	WG1010895
Vinyl acetate	U		0.0688	0.288	25	08/23/2017 01:30	WG1010895
Vinyl chloride	U		0.00838	0.0288	25	08/23/2017 01:30	WG1010895
Xylenes, Total	U		0.0200	0.0863	25	08/23/2017 01:30	WG1010895
(S) Toluene-d8	102			80.0-120		08/23/2017 01:30	WG1010895
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 01:30	WG1010895
(S) 4-Bromofluorobenzene	104			64.0-132		08/23/2017 01:30	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.2		1	08/21/2017 09:20	WG1011913

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1.32		0.0389	0.115	1	08/20/2017 15:21	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	92.1			77.0-120		08/20/2017 15:21	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0177	J	0.0115	0.0574	1	08/22/2017 09:23	WG1010895
Acrylonitrile	U		0.00205	0.0115	1	08/22/2017 09:23	WG1010895
Benzene	U		0.000310	0.00115	1	08/22/2017 09:23	WG1010895
Bromobenzene	U		0.000326	0.00115	1	08/22/2017 09:23	WG1010895
Bromodichloromethane	U		0.000291	0.00115	1	08/22/2017 09:23	WG1010895
Bromochloromethane	U		0.000447	0.00574	1	08/22/2017 09:23	WG1010895
Bromoform	U		0.000486	0.00115	1	08/22/2017 09:23	WG1010895
Bromomethane	U		0.00154	0.00574	1	08/22/2017 09:23	WG1010895
n-Butylbenzene	U		0.000296	0.00115	1	08/22/2017 09:23	WG1010895
sec-Butylbenzene	U		0.000231	0.00115	1	08/22/2017 09:23	WG1010895
tert-Butylbenzene	U		0.000236	0.00115	1	08/22/2017 09:23	WG1010895
Carbon disulfide	0.00174		0.000253	0.00115	1	08/22/2017 09:23	WG1010895
Carbon tetrachloride	U		0.000376	0.00115	1	08/22/2017 09:23	WG1010895
Chlorobenzene	U		0.000243	0.00115	1	08/22/2017 09:23	WG1010895
Chlorodibromomethane	U		0.000428	0.00115	1	08/22/2017 09:23	WG1010895
Chloroethane	U		0.00109	0.00574	1	08/22/2017 09:23	WG1010895
Chloroform	U		0.000263	0.00574	1	08/22/2017 09:23	WG1010895
Chloromethane	U		0.000430	0.00287	1	08/22/2017 09:23	WG1010895
2-Chlorotoluene	U		0.000345	0.00115	1	08/22/2017 09:23	WG1010895
4-Chlorotoluene	U		0.000275	0.00115	1	08/22/2017 09:23	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00120	0.00574	1	08/22/2017 09:23	WG1010895
1,2-Dibromoethane	U		0.000393	0.00115	1	08/22/2017 09:23	WG1010895
Dibromomethane	U		0.000438	0.00115	1	08/22/2017 09:23	WG1010895
1,2-Dichlorobenzene	U		0.000350	0.00115	1	08/22/2017 09:23	WG1010895
1,3-Dichlorobenzene	U		0.000274	0.00115	1	08/22/2017 09:23	WG1010895
1,4-Dichlorobenzene	U		0.000259	0.00115	1	08/22/2017 09:23	WG1010895
Dichlorodifluoromethane	U		0.000818	0.00574	1	08/22/2017 09:23	WG1010895
1,1-Dichloroethane	U		0.000228	0.00115	1	08/22/2017 09:23	WG1010895
1,2-Dichloroethane	U		0.000304	0.00115	1	08/22/2017 09:23	WG1010895
1,1-Dichloroethene	0.00192		0.000348	0.00115	1	08/22/2017 09:23	WG1010895
cis-1,2-Dichloroethene	12.6		0.135	0.574	500	08/23/2017 14:58	WG1010895
trans-1,2-Dichloroethene	0.00230		0.000303	0.00115	1	08/22/2017 09:23	WG1010895
1,2-Dichloropropane	U		0.000411	0.00115	1	08/22/2017 09:23	WG1010895
1,1-Dichloropropene	U		0.000364	0.00115	1	08/22/2017 09:23	WG1010895
1,3-Dichloropropane	U		0.000237	0.00115	1	08/22/2017 09:23	WG1010895
cis-1,3-Dichloropropene	U		0.000301	0.00115	1	08/22/2017 09:23	WG1010895
trans-1,3-Dichloropropene	U		0.000306	0.00115	1	08/22/2017 09:23	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000892	0.00287	1	08/22/2017 09:23	WG1010895
2,2-Dichloropropane	U		0.000320	0.00115	1	08/22/2017 09:23	WG1010895
Di-isopropyl ether	U		0.000284	0.00115	1	08/22/2017 09:23	WG1010895
Ethylbenzene	U		0.000341	0.00115	1	08/22/2017 09:23	WG1010895
Hexachloro-1,3-butadiene	U	JO	0.000392	0.00115	1	08/22/2017 09:23	WG1010895
2-Hexanone	U		0.00157	0.0115	1	08/22/2017 09:23	WG1010895
n-Hexane	U		0.000333	0.0115	1	08/22/2017 09:23	WG1010895

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/14/17 10:55

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00290	0.0115	1	08/22/2017 09:23	WG1010895
Isopropylbenzene	U		0.000279	0.00115	1	08/22/2017 09:23	WG1010895
p-Isopropyltoluene	U		0.000234	0.00115	1	08/22/2017 09:23	WG1010895
2-Butanone (MEK)	U		0.00537	0.0115	1	08/22/2017 09:23	WG1010895
Methylene Chloride	U		0.00115	0.00574	1	08/22/2017 09:23	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00216	0.0115	1	08/22/2017 09:23	WG1010895
Methyl tert-butyl ether	U		0.000243	0.00115	1	08/22/2017 09:23	WG1010895
Naphthalene	0.0340		0.00115	0.00574	1	08/22/2017 09:23	WG1010895
n-Propylbenzene	U		0.000236	0.00115	1	08/22/2017 09:23	WG1010895
Styrene	U		0.000268	0.00115	1	08/22/2017 09:23	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000303	0.00115	1	08/22/2017 09:23	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000419	0.00115	1	08/22/2017 09:23	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000419	0.00115	1	08/22/2017 09:23	WG1010895
Tetrachloroethene	0.0522		0.000317	0.00115	1	08/22/2017 09:23	WG1010895
Toluene	U		0.000498	0.00574	1	08/22/2017 09:23	WG1010895
1,2,3-Trichlorobenzene	U	JO	0.000351	0.00115	1	08/22/2017 09:23	WG1010895
1,2,4-Trichlorobenzene	U	JO	0.000445	0.00115	1	08/22/2017 09:23	WG1010895
1,1,1-Trichloroethane	U		0.000328	0.00115	1	08/22/2017 09:23	WG1010895
1,1,2-Trichloroethane	U		0.000318	0.00115	1	08/22/2017 09:23	WG1010895
Trichloroethene	0.0289		0.000320	0.00115	1	08/22/2017 09:23	WG1010895
Trichlorofluoromethane	U		0.000438	0.00574	1	08/22/2017 09:23	WG1010895
1,2,3-Trichloropropane	U		0.000850	0.00287	1	08/22/2017 09:23	WG1010895
1,2,4-Trimethylbenzene	U		0.000242	0.00115	1	08/22/2017 09:23	WG1010895
1,2,3-Trimethylbenzene	U		0.000329	0.00115	1	08/22/2017 09:23	WG1010895
1,3,5-Trimethylbenzene	U		0.000305	0.00115	1	08/22/2017 09:23	WG1010895
Vinyl acetate	U		0.00274	0.0115	1	08/22/2017 09:23	WG1010895
Vinyl chloride	0.124		0.000334	0.00115	1	08/22/2017 09:23	WG1010895
Xylenes, Total	U		0.000801	0.00344	1	08/22/2017 09:23	WG1010895
(S) Toluene-d8	98.4			80.0-120		08/22/2017 09:23	WG1010895
(S) Toluene-d8	101			80.0-120		08/23/2017 14:58	WG1010895
(S) Dibromofluoromethane	112			74.0-131		08/22/2017 09:23	WG1010895
(S) Dibromofluoromethane	98.7			74.0-131		08/23/2017 14:58	WG1010895
(S) 4-Bromofluorobenzene	103			64.0-132		08/22/2017 09:23	WG1010895
(S) 4-Bromofluorobenzene	97.8			64.0-132		08/23/2017 14:58	WG1010895

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.6		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0358	0.106	1	08/20/2017 15:43	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	92.6			77.0-120		08/20/2017 15:43	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0191	J	0.0106	0.0529	1	08/22/2017 09:44	WG1010895
Acrylonitrile	U		0.00189	0.0106	1	08/22/2017 09:44	WG1010895
Benzene	U		0.000285	0.00106	1	08/22/2017 09:44	WG1010895
Bromobenzene	U		0.000300	0.00106	1	08/22/2017 09:44	WG1010895
Bromodichloromethane	U		0.000268	0.00106	1	08/22/2017 09:44	WG1010895
Bromochloromethane	U		0.000412	0.00529	1	08/22/2017 09:44	WG1010895
Bromoform	U		0.000448	0.00106	1	08/22/2017 09:44	WG1010895
Bromomethane	U		0.00142	0.00529	1	08/22/2017 09:44	WG1010895
n-Butylbenzene	U		0.000273	0.00106	1	08/22/2017 09:44	WG1010895
sec-Butylbenzene	U		0.000212	0.00106	1	08/22/2017 09:44	WG1010895
tert-Butylbenzene	U		0.000218	0.00106	1	08/22/2017 09:44	WG1010895
Carbon disulfide	0.00114		0.000234	0.00106	1	08/22/2017 09:44	WG1010895
Carbon tetrachloride	U		0.000347	0.00106	1	08/22/2017 09:44	WG1010895
Chlorobenzene	U		0.000224	0.00106	1	08/22/2017 09:44	WG1010895
Chlorodibromomethane	U		0.000394	0.00106	1	08/22/2017 09:44	WG1010895
Chloroethane	U		0.00100	0.00529	1	08/22/2017 09:44	WG1010895
Chloroform	U		0.000242	0.00529	1	08/22/2017 09:44	WG1010895
Chloromethane	U		0.000396	0.00264	1	08/22/2017 09:44	WG1010895
2-Chlorotoluene	U		0.000318	0.00106	1	08/22/2017 09:44	WG1010895
4-Chlorotoluene	U		0.000254	0.00106	1	08/22/2017 09:44	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00111	0.00529	1	08/22/2017 09:44	WG1010895
1,2-Dibromoethane	U		0.000363	0.00106	1	08/22/2017 09:44	WG1010895
Dibromomethane	U		0.000404	0.00106	1	08/22/2017 09:44	WG1010895
1,2-Dichlorobenzene	U		0.000322	0.00106	1	08/22/2017 09:44	WG1010895
1,3-Dichlorobenzene	U		0.000253	0.00106	1	08/22/2017 09:44	WG1010895
1,4-Dichlorobenzene	U		0.000239	0.00106	1	08/22/2017 09:44	WG1010895
Dichlorodifluoromethane	U		0.000754	0.00529	1	08/22/2017 09:44	WG1010895
1,1-Dichloroethane	U		0.000210	0.00106	1	08/22/2017 09:44	WG1010895
1,2-Dichloroethane	U		0.000280	0.00106	1	08/22/2017 09:44	WG1010895
1,1-Dichloroethene	U		0.000320	0.00106	1	08/22/2017 09:44	WG1010895
cis-1,2-Dichloroethene	0.00879	J	0.00627	0.0267	25.25	08/23/2017 14:38	WG1010895
trans-1,2-Dichloroethene	U		0.000279	0.00106	1	08/22/2017 09:44	WG1010895
1,2-Dichloropropane	U		0.000378	0.00106	1	08/22/2017 09:44	WG1010895
1,1-Dichloropropene	U		0.000335	0.00106	1	08/22/2017 09:44	WG1010895
1,3-Dichloropropane	U		0.000219	0.00106	1	08/22/2017 09:44	WG1010895
cis-1,3-Dichloropropene	U		0.000277	0.00106	1	08/22/2017 09:44	WG1010895
trans-1,3-Dichloropropene	U		0.000282	0.00106	1	08/22/2017 09:44	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000822	0.00264	1	08/22/2017 09:44	WG1010895
2,2-Dichloropropane	U		0.000295	0.00106	1	08/22/2017 09:44	WG1010895
Di-isopropyl ether	U		0.000262	0.00106	1	08/22/2017 09:44	WG1010895
Ethylbenzene	U		0.000314	0.00106	1	08/22/2017 09:44	WG1010895
Hexachloro-1,3-butadiene	U	JO	0.000362	0.00106	1	08/22/2017 09:44	WG1010895
2-Hexanone	U		0.00145	0.0106	1	08/22/2017 09:44	WG1010895
n-Hexane	0.00151	J	0.000307	0.0106	1	08/22/2017 09:44	WG1010895

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/14/17 11:20

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00267	0.0106	1	08/22/2017 09:44	WG1010895
Isopropylbenzene	U		0.000257	0.00106	1	08/22/2017 09:44	WG1010895
p-Isopropyltoluene	U		0.000216	0.00106	1	08/22/2017 09:44	WG1010895
2-Butanone (MEK)	U		0.00495	0.0106	1	08/22/2017 09:44	WG1010895
Methylene Chloride	U		0.00106	0.00529	1	08/22/2017 09:44	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00199	0.0106	1	08/22/2017 09:44	WG1010895
Methyl tert-butyl ether	U		0.000224	0.00106	1	08/22/2017 09:44	WG1010895
Naphthalene	0.00114	J	0.00106	0.00529	1	08/22/2017 09:44	WG1010895
n-Propylbenzene	U		0.000218	0.00106	1	08/22/2017 09:44	WG1010895
Styrene	U		0.000247	0.00106	1	08/22/2017 09:44	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000279	0.00106	1	08/22/2017 09:44	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000386	0.00106	1	08/22/2017 09:44	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000386	0.00106	1	08/22/2017 09:44	WG1010895
Tetrachloroethene	0.000306	J	0.000292	0.00106	1	08/22/2017 09:44	WG1010895
Toluene	U		0.000459	0.00529	1	08/22/2017 09:44	WG1010895
1,2,3-Trichlorobenzene	U	JO	0.000323	0.00106	1	08/22/2017 09:44	WG1010895
1,2,4-Trichlorobenzene	U	JO	0.000410	0.00106	1	08/22/2017 09:44	WG1010895
1,1,1-Trichloroethane	U		0.000302	0.00106	1	08/22/2017 09:44	WG1010895
1,1,2-Trichloroethane	U		0.000293	0.00106	1	08/22/2017 09:44	WG1010895
Trichloroethene	U		0.000295	0.00106	1	08/22/2017 09:44	WG1010895
Trichlorofluoromethane	U		0.000404	0.00529	1	08/22/2017 09:44	WG1010895
1,2,3-Trichloropropane	U		0.000783	0.00264	1	08/22/2017 09:44	WG1010895
1,2,4-Trimethylbenzene	U		0.000223	0.00106	1	08/22/2017 09:44	WG1010895
1,2,3-Trimethylbenzene	U		0.000303	0.00106	1	08/22/2017 09:44	WG1010895
1,3,5-Trimethylbenzene	U		0.000281	0.00106	1	08/22/2017 09:44	WG1010895
Vinyl acetate	U		0.00253	0.0106	1	08/22/2017 09:44	WG1010895
Vinyl chloride	U		0.000308	0.00106	1	08/22/2017 09:44	WG1010895
Xylenes, Total	U		0.000738	0.00317	1	08/22/2017 09:44	WG1010895
(S) Toluene-d8	93.6			80.0-120		08/23/2017 14:38	WG1010895
(S) Toluene-d8	95.1			80.0-120		08/22/2017 09:44	WG1010895
(S) Dibromofluoromethane	98.0			74.0-131		08/23/2017 14:38	WG1010895
(S) Dibromofluoromethane	112			74.0-131		08/22/2017 09:44	WG1010895
(S) 4-Bromofluorobenzene	99.0			64.0-132		08/23/2017 14:38	WG1010895
(S) 4-Bromofluorobenzene	99.2			64.0-132		08/22/2017 09:44	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/14/17 12:00

L929901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.8		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	4.54		0.0386	0.114	1	08/20/2017 16:05	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	93.4			77.0-120		08/20/2017 16:05	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0114	0.0570	1	08/23/2017 01:56	WG1012508
Acrylonitrile	U		0.00204	0.0114	1	08/23/2017 01:56	WG1012508
Benzene	U		0.000308	0.00114	1	08/23/2017 01:56	WG1012508
Bromobenzene	U		0.000324	0.00114	1	08/23/2017 01:56	WG1012508
Bromodichloromethane	U		0.000289	0.00114	1	08/23/2017 01:56	WG1012508
Bromochloromethane	U		0.000444	0.00570	1	08/23/2017 01:56	WG1012508
Bromoform	U		0.000483	0.00114	1	08/23/2017 01:56	WG1012508
Bromomethane	U		0.00153	0.00570	1	08/23/2017 01:56	WG1012508
n-Butylbenzene	U		0.000294	0.00114	1	08/23/2017 01:56	WG1012508
sec-Butylbenzene	U		0.000229	0.00114	1	08/23/2017 01:56	WG1012508
tert-Butylbenzene	U		0.000235	0.00114	1	08/23/2017 01:56	WG1012508
Carbon disulfide	0.00390		0.000252	0.00114	1	08/23/2017 01:56	WG1012508
Carbon tetrachloride	U		0.000374	0.00114	1	08/23/2017 01:56	WG1012508
Chlorobenzene	U		0.000242	0.00114	1	08/23/2017 01:56	WG1012508
Chlorodibromomethane	U		0.000425	0.00114	1	08/23/2017 01:56	WG1012508
Chloroethane	U		0.00108	0.00570	1	08/23/2017 01:56	WG1012508
Chloroform	U		0.000261	0.00570	1	08/23/2017 01:56	WG1012508
Chloromethane	U		0.000427	0.00285	1	08/23/2017 01:56	WG1012508
2-Chlorotoluene	U		0.000343	0.00114	1	08/23/2017 01:56	WG1012508
4-Chlorotoluene	U		0.000273	0.00114	1	08/23/2017 01:56	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00120	0.00570	1	08/23/2017 01:56	WG1012508
1,2-Dibromoethane	U		0.000391	0.00114	1	08/23/2017 01:56	WG1012508
Dibromomethane	U		0.000435	0.00114	1	08/23/2017 01:56	WG1012508
1,2-Dichlorobenzene	U		0.000347	0.00114	1	08/23/2017 01:56	WG1012508
1,3-Dichlorobenzene	U		0.000272	0.00114	1	08/23/2017 01:56	WG1012508
1,4-Dichlorobenzene	U		0.000257	0.00114	1	08/23/2017 01:56	WG1012508
Dichlorodifluoromethane	U		0.000812	0.00570	1	08/23/2017 01:56	WG1012508
1,1-Dichloroethane	U		0.000227	0.00114	1	08/23/2017 01:56	WG1012508
1,2-Dichloroethane	U		0.000302	0.00114	1	08/23/2017 01:56	WG1012508
1,1-Dichloroethene	0.00751		0.000345	0.00114	1	08/23/2017 01:56	WG1012508
cis-1,2-Dichloroethene	6.41		0.0268	0.114	100	08/23/2017 14:22	WG1012508
trans-1,2-Dichloroethene	0.0132		0.000301	0.00114	1	08/23/2017 01:56	WG1012508
1,2-Dichloropropane	U		0.000408	0.00114	1	08/23/2017 01:56	WG1012508
1,1-Dichloropropene	U		0.000361	0.00114	1	08/23/2017 01:56	WG1012508
1,3-Dichloropropane	U		0.000236	0.00114	1	08/23/2017 01:56	WG1012508
cis-1,3-Dichloropropene	U		0.000298	0.00114	1	08/23/2017 01:56	WG1012508
trans-1,3-Dichloropropene	U		0.000304	0.00114	1	08/23/2017 01:56	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000886	0.00285	1	08/23/2017 01:56	WG1012508
2,2-Dichloropropane	U		0.000318	0.00114	1	08/23/2017 01:56	WG1012508
Di-isopropyl ether	U		0.000283	0.00114	1	08/23/2017 01:56	WG1012508
Ethylbenzene	U		0.000338	0.00114	1	08/23/2017 01:56	WG1012508
Hexachloro-1,3-butadiene	U		0.000390	0.00114	1	08/23/2017 01:56	WG1012508
2-Hexanone	U		0.00156	0.0114	1	08/23/2017 01:56	WG1012508
n-Hexane	0.00815	J	0.000330	0.0114	1	08/23/2017 01:56	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/14/17 12:00

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00288	0.0114	1	08/23/2017 01:56	WG1012508
Isopropylbenzene	U		0.000277	0.00114	1	08/23/2017 01:56	WG1012508
p-Isopropyltoluene	U		0.000232	0.00114	1	08/23/2017 01:56	WG1012508
2-Butanone (MEK)	U		0.00533	0.0114	1	08/23/2017 01:56	WG1012508
Methylene Chloride	U		0.00114	0.00570	1	08/23/2017 01:56	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0114	1	08/23/2017 01:56	WG1012508
Methyl tert-butyl ether	U		0.000242	0.00114	1	08/23/2017 01:56	WG1012508
Naphthalene	U		0.00114	0.00570	1	08/23/2017 01:56	WG1012508
n-Propylbenzene	U		0.000235	0.00114	1	08/23/2017 01:56	WG1012508
Styrene	U		0.000267	0.00114	1	08/23/2017 01:56	WG1012508
1,1,1-Tetrachloroethane	U		0.000301	0.00114	1	08/23/2017 01:56	WG1012508
1,1,2-Tetrachloroethane	U		0.000416	0.00114	1	08/23/2017 01:56	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000416	0.00114	1	08/23/2017 01:56	WG1012508
Tetrachloroethene	17.2		0.229	0.832	730	08/23/2017 16:39	WG1012508
Toluene	U		0.000494	0.00570	1	08/23/2017 01:56	WG1012508
1,2,3-Trichlorobenzene	U		0.000349	0.00114	1	08/23/2017 01:56	WG1012508
1,2,4-Trichlorobenzene	U		0.000442	0.00114	1	08/23/2017 01:56	WG1012508
1,1,1-Trichloroethane	U		0.000326	0.00114	1	08/23/2017 01:56	WG1012508
1,1,2-Trichloroethane	U		0.000316	0.00114	1	08/23/2017 01:56	WG1012508
Trichloroethene	2.28		0.0318	0.114	100	08/23/2017 14:22	WG1012508
Trichlorofluoromethane	U		0.000435	0.00570	1	08/23/2017 01:56	WG1012508
1,2,3-Trichloropropane	U		0.000844	0.00285	1	08/23/2017 01:56	WG1012508
1,2,4-Trimethylbenzene	U		0.000240	0.00114	1	08/23/2017 01:56	WG1012508
1,2,3-Trimethylbenzene	U		0.000327	0.00114	1	08/23/2017 01:56	WG1012508
1,3,5-Trimethylbenzene	U		0.000303	0.00114	1	08/23/2017 01:56	WG1012508
Vinyl acetate	U		0.00272	0.0114	1	08/23/2017 01:56	WG1012508
Vinyl chloride	0.154		0.000332	0.00114	1	08/23/2017 01:56	WG1012508
Xylenes, Total	U		0.000795	0.00342	1	08/23/2017 01:56	WG1012508
(S) Toluene-d8	94.2			80.0-120		08/23/2017 01:56	WG1012508
(S) Toluene-d8	118			80.0-120		08/23/2017 14:22	WG1012508
(S) Toluene-d8	115			80.0-120		08/23/2017 16:39	WG1012508
(S) Dibromofluoromethane	99.3			74.0-131		08/23/2017 14:22	WG1012508
(S) Dibromofluoromethane	99.5			74.0-131		08/23/2017 16:39	WG1012508
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 01:56	WG1012508
(S) 4-Bromofluorobenzene	97.1			64.0-132		08/23/2017 01:56	WG1012508
(S) 4-Bromofluorobenzene	105			64.0-132		08/23/2017 16:39	WG1012508
(S) 4-Bromofluorobenzene	107			64.0-132		08/23/2017 14:22	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.6		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0370	0.109	1	08/20/2017 16:28	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	92.2			77.0-120		08/20/2017 16:28	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0109	0.0546	1	08/23/2017 02:16	WG1012508
Acrylonitrile	U		0.00195	0.0109	1	08/23/2017 02:16	WG1012508
Benzene	U		0.000295	0.00109	1	08/23/2017 02:16	WG1012508
Bromobenzene	U		0.000310	0.00109	1	08/23/2017 02:16	WG1012508
Bromodichloromethane	U		0.000277	0.00109	1	08/23/2017 02:16	WG1012508
Bromochloromethane	U		0.000426	0.00546	1	08/23/2017 02:16	WG1012508
Bromoform	U		0.000463	0.00109	1	08/23/2017 02:16	WG1012508
Bromomethane	U		0.00146	0.00546	1	08/23/2017 02:16	WG1012508
n-Butylbenzene	U		0.000282	0.00109	1	08/23/2017 02:16	WG1012508
sec-Butylbenzene	U		0.000219	0.00109	1	08/23/2017 02:16	WG1012508
tert-Butylbenzene	U		0.000225	0.00109	1	08/23/2017 02:16	WG1012508
Carbon disulfide	0.000706	J	0.000241	0.00109	1	08/23/2017 02:16	WG1012508
Carbon tetrachloride	U		0.000358	0.00109	1	08/23/2017 02:16	WG1012508
Chlorobenzene	U		0.000231	0.00109	1	08/23/2017 02:16	WG1012508
Chlorodibromomethane	U		0.000407	0.00109	1	08/23/2017 02:16	WG1012508
Chloroethane	U		0.00103	0.00546	1	08/23/2017 02:16	WG1012508
Chloroform	U		0.000250	0.00546	1	08/23/2017 02:16	WG1012508
Chloromethane	U		0.000409	0.00273	1	08/23/2017 02:16	WG1012508
2-Chlorotoluene	U		0.000329	0.00109	1	08/23/2017 02:16	WG1012508
4-Chlorotoluene	U		0.000262	0.00109	1	08/23/2017 02:16	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00115	0.00546	1	08/23/2017 02:16	WG1012508
1,2-Dibromoethane	U		0.000375	0.00109	1	08/23/2017 02:16	WG1012508
Dibromomethane	U		0.000417	0.00109	1	08/23/2017 02:16	WG1012508
1,2-Dichlorobenzene	U		0.000333	0.00109	1	08/23/2017 02:16	WG1012508
1,3-Dichlorobenzene	U		0.000261	0.00109	1	08/23/2017 02:16	WG1012508
1,4-Dichlorobenzene	U		0.000247	0.00109	1	08/23/2017 02:16	WG1012508
Dichlorodifluoromethane	U		0.000779	0.00546	1	08/23/2017 02:16	WG1012508
1,1-Dichloroethane	U		0.000217	0.00109	1	08/23/2017 02:16	WG1012508
1,2-Dichloroethane	U		0.000289	0.00109	1	08/23/2017 02:16	WG1012508
1,1-Dichloroethene	U		0.000331	0.00109	1	08/23/2017 02:16	WG1012508
cis-1,2-Dichloroethene	U		0.00642	0.0273	25	08/23/2017 16:20	WG1012508
trans-1,2-Dichloroethene	U		0.000288	0.00109	1	08/23/2017 02:16	WG1012508
1,2-Dichloropropane	U		0.000391	0.00109	1	08/23/2017 02:16	WG1012508
1,1-Dichloropropene	U		0.000346	0.00109	1	08/23/2017 02:16	WG1012508
1,3-Dichloropropane	U		0.000226	0.00109	1	08/23/2017 02:16	WG1012508
cis-1,3-Dichloropropene	U		0.000286	0.00109	1	08/23/2017 02:16	WG1012508
trans-1,3-Dichloropropene	U		0.000292	0.00109	1	08/23/2017 02:16	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000849	0.00273	1	08/23/2017 02:16	WG1012508
2,2-Dichloropropane	U		0.000305	0.00109	1	08/23/2017 02:16	WG1012508
Di-isopropyl ether	U		0.000271	0.00109	1	08/23/2017 02:16	WG1012508
Ethylbenzene	U		0.000324	0.00109	1	08/23/2017 02:16	WG1012508
Hexachloro-1,3-butadiene	U		0.000373	0.00109	1	08/23/2017 02:16	WG1012508
2-Hexanone	U		0.00150	0.0109	1	08/23/2017 02:16	WG1012508
n-Hexane	U		0.000317	0.0109	1	08/23/2017 02:16	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00276	0.0109	1	08/23/2017 02:16	WG1012508
Isopropylbenzene	U		0.000265	0.00109	1	08/23/2017 02:16	WG1012508
p-Isopropyltoluene	U		0.000223	0.00109	1	08/23/2017 02:16	WG1012508
2-Butanone (MEK)	U		0.00511	0.0109	1	08/23/2017 02:16	WG1012508
Methylene Chloride	U		0.00109	0.00546	1	08/23/2017 02:16	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00205	0.0109	1	08/23/2017 02:16	WG1012508
Methyl tert-butyl ether	U		0.000231	0.00109	1	08/23/2017 02:16	WG1012508
Naphthalene	U		0.00109	0.00546	1	08/23/2017 02:16	WG1012508
n-Propylbenzene	U		0.000225	0.00109	1	08/23/2017 02:16	WG1012508
Styrene	U		0.000256	0.00109	1	08/23/2017 02:16	WG1012508
1,1,1-Tetrachloroethane	U		0.000288	0.00109	1	08/23/2017 02:16	WG1012508
1,1,2-Tetrachloroethane	U		0.000399	0.00109	1	08/23/2017 02:16	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000399	0.00109	1	08/23/2017 02:16	WG1012508
Tetrachloroethene	0.0483		0.00753	0.0273	25	08/23/2017 16:20	WG1012508
Toluene	U		0.000474	0.00546	1	08/23/2017 02:16	WG1012508
1,2,3-Trichlorobenzene	U		0.000334	0.00109	1	08/23/2017 02:16	WG1012508
1,2,4-Trichlorobenzene	U		0.000424	0.00109	1	08/23/2017 02:16	WG1012508
1,1,1-Trichloroethane	U		0.000312	0.00109	1	08/23/2017 02:16	WG1012508
1,1,2-Trichloroethane	U		0.000302	0.00109	1	08/23/2017 02:16	WG1012508
Trichloroethene	0.00790	J	0.00762	0.0273	25	08/23/2017 16:20	WG1012508
Trichlorofluoromethane	U		0.000417	0.00546	1	08/23/2017 02:16	WG1012508
1,2,3-Trichloropropane	U		0.000809	0.00273	1	08/23/2017 02:16	WG1012508
1,2,4-Trimethylbenzene	U		0.000230	0.00109	1	08/23/2017 02:16	WG1012508
1,2,3-Trimethylbenzene	U		0.000313	0.00109	1	08/23/2017 02:16	WG1012508
1,3,5-Trimethylbenzene	U		0.000290	0.00109	1	08/23/2017 02:16	WG1012508
Vinyl acetate	U		0.00261	0.0109	1	08/23/2017 02:16	WG1012508
Vinyl chloride	0.000383	J	0.000318	0.00109	1	08/23/2017 02:16	WG1012508
Xylenes, Total	U		0.000762	0.00328	1	08/23/2017 02:16	WG1012508
(S) Toluene-d8	102			80.0-120		08/23/2017 16:20	WG1012508
(S) Toluene-d8	96.1			80.0-120		08/23/2017 02:16	WG1012508
(S) Dibromofluoromethane	95.8			74.0-131		08/23/2017 16:20	WG1012508
(S) Dibromofluoromethane	105			74.0-131		08/23/2017 02:16	WG1012508
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 02:16	WG1012508
(S) 4-Bromofluorobenzene	105			64.0-132		08/23/2017 16:20	WG1012508

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Sample Narrative:

L929901-05 WG1012508: No low level sodium bisulfite vials remaining. cis-12-DCE cannot be analyzed at a lower dilution.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.0		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1.01		0.0372	0.110	1	08/20/2017 16:50	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	94.4			77.0-120		08/20/2017 16:50	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0110	0.0549	1	08/19/2017 01:31	WG1011219
Acrylonitrile	U		0.00197	0.0110	1	08/19/2017 01:31	WG1011219
Benzene	U		0.000297	0.00110	1	08/19/2017 01:31	WG1011219
Bromobenzene	U		0.000312	0.00110	1	08/19/2017 01:31	WG1011219
Bromodichloromethane	U		0.000279	0.00110	1	08/19/2017 01:31	WG1011219
Bromochloromethane	U		0.000428	0.00549	1	08/19/2017 01:31	WG1011219
Bromoform	U		0.000466	0.00110	1	08/19/2017 01:31	WG1011219
Bromomethane	U	<u>JO</u>	0.00147	0.00549	1	08/19/2017 01:31	WG1011219
n-Butylbenzene	U		0.000283	0.00110	1	08/19/2017 01:31	WG1011219
sec-Butylbenzene	U		0.000221	0.00110	1	08/19/2017 01:31	WG1011219
tert-Butylbenzene	U		0.000226	0.00110	1	08/19/2017 01:31	WG1011219
Carbon disulfide	0.00187		0.000243	0.00110	1	08/19/2017 01:31	WG1011219
Carbon tetrachloride	U		0.000360	0.00110	1	08/19/2017 01:31	WG1011219
Chlorobenzene	U		0.000233	0.00110	1	08/19/2017 01:31	WG1011219
Chlorodibromomethane	U		0.000410	0.00110	1	08/19/2017 01:31	WG1011219
Chloroethane	U		0.00104	0.00549	1	08/19/2017 01:31	WG1011219
Chloroform	U		0.000252	0.00549	1	08/19/2017 01:31	WG1011219
Chloromethane	U		0.000412	0.00275	1	08/19/2017 01:31	WG1011219
2-Chlorotoluene	U		0.000331	0.00110	1	08/19/2017 01:31	WG1011219
4-Chlorotoluene	U		0.000264	0.00110	1	08/19/2017 01:31	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00115	0.00549	1	08/19/2017 01:31	WG1011219
1,2-Dibromoethane	U		0.000377	0.00110	1	08/19/2017 01:31	WG1011219
Dibromomethane	U		0.000420	0.00110	1	08/19/2017 01:31	WG1011219
1,2-Dichlorobenzene	U		0.000335	0.00110	1	08/19/2017 01:31	WG1011219
1,3-Dichlorobenzene	U		0.000263	0.00110	1	08/19/2017 01:31	WG1011219
1,4-Dichlorobenzene	U		0.000248	0.00110	1	08/19/2017 01:31	WG1011219
Dichlorodifluoromethane	U		0.000783	0.00549	1	08/19/2017 01:31	WG1011219
1,1-Dichloroethane	U		0.000219	0.00110	1	08/19/2017 01:31	WG1011219
1,2-Dichloroethane	U		0.000291	0.00110	1	08/19/2017 01:31	WG1011219
1,1-Dichloroethene	0.00103	<u>J</u>	0.000333	0.00110	1	08/19/2017 01:31	WG1011219
cis-1,2-Dichloroethene	0.140		0.000258	0.00110	1	08/19/2017 01:31	WG1011219
trans-1,2-Dichloroethene	U		0.000290	0.00110	1	08/19/2017 01:31	WG1011219
1,2-Dichloropropane	U		0.000393	0.00110	1	08/19/2017 01:31	WG1011219
1,1-Dichloropropene	U		0.000348	0.00110	1	08/19/2017 01:31	WG1011219
1,3-Dichloropropane	U		0.000227	0.00110	1	08/19/2017 01:31	WG1011219
cis-1,3-Dichloropropene	U		0.000288	0.00110	1	08/19/2017 01:31	WG1011219
trans-1,3-Dichloropropene	U		0.000293	0.00110	1	08/19/2017 01:31	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000855	0.00275	1	08/19/2017 01:31	WG1011219
2,2-Dichloropropane	U	<u>JO</u>	0.000306	0.00110	1	08/19/2017 01:31	WG1011219
Di-isopropyl ether	U		0.000272	0.00110	1	08/19/2017 01:31	WG1011219
Ethylbenzene	U		0.000326	0.00110	1	08/19/2017 01:31	WG1011219
Hexachloro-1,3-butadiene	U		0.000376	0.00110	1	08/19/2017 01:31	WG1011219
2-Hexanone	U		0.00150	0.0110	1	08/19/2017 01:31	WG1011219
n-Hexane	U		0.000319	0.0110	1	08/19/2017 01:31	WG1011219

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00278	0.0110	1	08/19/2017 01:31	WG1011219
Isopropylbenzene	U		0.000267	0.00110	1	08/19/2017 01:31	WG1011219
p-Isopropyltoluene	U		0.000224	0.00110	1	08/19/2017 01:31	WG1011219
2-Butanone (MEK)	U		0.00514	0.0110	1	08/19/2017 01:31	WG1011219
Methylene Chloride	U		0.00110	0.00549	1	08/19/2017 01:31	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00207	0.0110	1	08/19/2017 01:31	WG1011219
Methyl tert-butyl ether	U		0.000233	0.00110	1	08/19/2017 01:31	WG1011219
Naphthalene	U		0.00110	0.00549	1	08/19/2017 01:31	WG1011219
n-Propylbenzene	U		0.000226	0.00110	1	08/19/2017 01:31	WG1011219
Styrene	U		0.000257	0.00110	1	08/19/2017 01:31	WG1011219
1,1,1,2-Tetrachloroethane	U		0.000290	0.00110	1	08/19/2017 01:31	WG1011219
1,1,2,2-Tetrachloroethane	U		0.000401	0.00110	1	08/19/2017 01:31	WG1011219
1,1,2-Trichlorotrifluoroethane	U	J0	0.000401	0.00110	1	08/19/2017 01:31	WG1011219
Tetrachloroethene	9.95	J4	0.152	0.549	500	08/22/2017 03:29	WG1011219
Toluene	U		0.000477	0.00549	1	08/19/2017 01:31	WG1011219
1,2,3-Trichlorobenzene	U		0.000336	0.00110	1	08/19/2017 01:31	WG1011219
1,2,4-Trichlorobenzene	U		0.000426	0.00110	1	08/19/2017 01:31	WG1011219
1,1,1-Trichloroethane	U		0.000314	0.00110	1	08/19/2017 01:31	WG1011219
1,1,2-Trichloroethane	U		0.000304	0.00110	1	08/19/2017 01:31	WG1011219
Trichloroethene	2.16		0.0127	0.0456	41.5	08/20/2017 19:28	WG1011219
Trichlorofluoromethane	U		0.000420	0.00549	1	08/19/2017 01:31	WG1011219
1,2,3-Trichloropropane	U		0.000814	0.00275	1	08/19/2017 01:31	WG1011219
1,2,4-Trimethylbenzene	U		0.000232	0.00110	1	08/19/2017 01:31	WG1011219
1,2,3-Trimethylbenzene	U		0.000315	0.00110	1	08/19/2017 01:31	WG1011219
1,3,5-Trimethylbenzene	U		0.000292	0.00110	1	08/19/2017 01:31	WG1011219
Vinyl acetate	U		0.00263	0.0110	1	08/19/2017 01:31	WG1011219
Vinyl chloride	0.000558	J	0.000320	0.00110	1	08/19/2017 01:31	WG1011219
Xylenes, Total	U		0.000767	0.00330	1	08/19/2017 01:31	WG1011219
(S) Toluene-d8	110			80.0-120		08/19/2017 01:31	WG1011219
(S) Toluene-d8	99.6			80.0-120		08/22/2017 03:29	WG1011219
(S) Toluene-d8	107			80.0-120		08/20/2017 19:28	WG1011219
(S) Dibromofluoromethane	105			74.0-131		08/19/2017 01:31	WG1011219
(S) Dibromofluoromethane	92.9			74.0-131		08/20/2017 19:28	WG1011219
(S) Dibromofluoromethane	103			74.0-131		08/22/2017 03:29	WG1011219
(S) 4-Bromofluorobenzene	106			64.0-132		08/19/2017 01:31	WG1011219
(S) 4-Bromofluorobenzene	99.6			64.0-132		08/20/2017 19:28	WG1011219
(S) 4-Bromofluorobenzene	100			64.0-132		08/22/2017 03:29	WG1011219

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.8		1	08/21/2017 09:20	WG1011913

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1.10	J	0.951	2.81	25.75	08/22/2017 14:04	WG1011765
(S) a,a,a-Trifluorotoluene(FID)	98.9			77.0-120		08/22/2017 14:04	WG1011765

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0109	0.0545	1	08/19/2017 01:51	WG1011219
Acrylonitrile	U		0.00195	0.0109	1	08/19/2017 01:51	WG1011219
Benzene	U		0.000294	0.00109	1	08/19/2017 01:51	WG1011219
Bromobenzene	U		0.000309	0.00109	1	08/19/2017 01:51	WG1011219
Bromodichloromethane	U		0.000277	0.00109	1	08/19/2017 01:51	WG1011219
Bromochloromethane	U		0.000425	0.00545	1	08/19/2017 01:51	WG1011219
Bromoform	U		0.000462	0.00109	1	08/19/2017 01:51	WG1011219
Bromomethane	U	JO	0.00146	0.00545	1	08/19/2017 01:51	WG1011219
n-Butylbenzene	U		0.000281	0.00109	1	08/19/2017 01:51	WG1011219
sec-Butylbenzene	U		0.000219	0.00109	1	08/19/2017 01:51	WG1011219
tert-Butylbenzene	U		0.000224	0.00109	1	08/19/2017 01:51	WG1011219
Carbon disulfide	0.000401	J	0.000241	0.00109	1	08/19/2017 01:51	WG1011219
Carbon tetrachloride	U		0.000357	0.00109	1	08/19/2017 01:51	WG1011219
Chlorobenzene	U		0.000231	0.00109	1	08/19/2017 01:51	WG1011219
Chlorodibromomethane	U		0.000406	0.00109	1	08/19/2017 01:51	WG1011219
Chloroethane	U		0.00103	0.00545	1	08/19/2017 01:51	WG1011219
Chloroform	U		0.000249	0.00545	1	08/19/2017 01:51	WG1011219
Chloromethane	U		0.000409	0.00272	1	08/19/2017 01:51	WG1011219
2-Chlorotoluene	U		0.000328	0.00109	1	08/19/2017 01:51	WG1011219
4-Chlorotoluene	U		0.000261	0.00109	1	08/19/2017 01:51	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00545	1	08/19/2017 01:51	WG1011219
1,2-Dibromoethane	U		0.000374	0.00109	1	08/19/2017 01:51	WG1011219
Dibromomethane	U		0.000416	0.00109	1	08/19/2017 01:51	WG1011219
1,2-Dichlorobenzene	U		0.000332	0.00109	1	08/19/2017 01:51	WG1011219
1,3-Dichlorobenzene	U		0.000260	0.00109	1	08/19/2017 01:51	WG1011219
1,4-Dichlorobenzene	U		0.000246	0.00109	1	08/19/2017 01:51	WG1011219
Dichlorodifluoromethane	U		0.000777	0.00545	1	08/19/2017 01:51	WG1011219
1,1-Dichloroethane	U		0.000217	0.00109	1	08/19/2017 01:51	WG1011219
1,2-Dichloroethane	U		0.000289	0.00109	1	08/19/2017 01:51	WG1011219
1,1-Dichloroethene	U		0.000330	0.00109	1	08/19/2017 01:51	WG1011219
cis-1,2-Dichloroethene	0.00201		0.000256	0.00109	1	08/19/2017 01:51	WG1011219
trans-1,2-Dichloroethene	U		0.000288	0.00109	1	08/19/2017 01:51	WG1011219
1,2-Dichloropropane	U		0.000390	0.00109	1	08/19/2017 01:51	WG1011219
1,1-Dichloropropene	U		0.000345	0.00109	1	08/19/2017 01:51	WG1011219
1,3-Dichloropropane	U		0.000226	0.00109	1	08/19/2017 01:51	WG1011219
cis-1,3-Dichloropropene	U		0.000285	0.00109	1	08/19/2017 01:51	WG1011219
trans-1,3-Dichloropropene	U		0.000291	0.00109	1	08/19/2017 01:51	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000848	0.00272	1	08/19/2017 01:51	WG1011219
2,2-Dichloropropane	U	JO	0.000304	0.00109	1	08/19/2017 01:51	WG1011219
Di-isopropyl ether	U		0.000270	0.00109	1	08/19/2017 01:51	WG1011219
Ethylbenzene	U		0.000324	0.00109	1	08/19/2017 01:51	WG1011219
Hexachloro-1,3-butadiene	U		0.000373	0.00109	1	08/19/2017 01:51	WG1011219
2-Hexanone	U		0.00149	0.0109	1	08/19/2017 01:51	WG1011219
n-Hexane	0.000515	J	0.000316	0.0109	1	08/19/2017 01:51	WG1011219

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00276	0.0109	1	08/19/2017 01:51	WG1011219
Isopropylbenzene	U		0.000265	0.00109	1	08/19/2017 01:51	WG1011219
p-Isopropyltoluene	U		0.000222	0.00109	1	08/19/2017 01:51	WG1011219
2-Butanone (MEK)	U		0.00510	0.0109	1	08/19/2017 01:51	WG1011219
Methylene Chloride	U		0.00109	0.00545	1	08/19/2017 01:51	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00205	0.0109	1	08/19/2017 01:51	WG1011219
Methyl tert-butyl ether	U		0.000231	0.00109	1	08/19/2017 01:51	WG1011219
Naphthalene	U		0.00109	0.00545	1	08/19/2017 01:51	WG1011219
n-Propylbenzene	U		0.000224	0.00109	1	08/19/2017 01:51	WG1011219
Styrene	U		0.000255	0.00109	1	08/19/2017 01:51	WG1011219
1,1,1-Tetrachloroethane	U		0.000288	0.00109	1	08/19/2017 01:51	WG1011219
1,1,2-Tetrachloroethane	U		0.000398	0.00109	1	08/19/2017 01:51	WG1011219
1,1,2-Trichlorotrifluoroethane	U	J0	0.000398	0.00109	1	08/19/2017 01:51	WG1011219
Tetrachloroethene	U	J4	0.000301	0.00109	1	08/20/2017 19:53	WG1011219
Toluene	U		0.000473	0.00545	1	08/19/2017 01:51	WG1011219
1,2,3-Trichlorobenzene	U		0.000333	0.00109	1	08/19/2017 01:51	WG1011219
1,2,4-Trichlorobenzene	U		0.000423	0.00109	1	08/19/2017 01:51	WG1011219
1,1,1-Trichloroethane	U		0.000312	0.00109	1	08/19/2017 01:51	WG1011219
1,1,2-Trichloroethane	U		0.000302	0.00109	1	08/19/2017 01:51	WG1011219
Trichloroethene	U		0.000304	0.00109	1	08/20/2017 19:53	WG1011219
Trichlorofluoromethane	U		0.000416	0.00545	1	08/19/2017 01:51	WG1011219
1,2,3-Trichloropropane	U		0.000807	0.00272	1	08/19/2017 01:51	WG1011219
1,2,4-Trimethylbenzene	U		0.000230	0.00109	1	08/19/2017 01:51	WG1011219
1,2,3-Trimethylbenzene	U		0.000313	0.00109	1	08/19/2017 01:51	WG1011219
1,3,5-Trimethylbenzene	U		0.000290	0.00109	1	08/19/2017 01:51	WG1011219
Vinyl acetate	U		0.00260	0.0109	1	08/19/2017 01:51	WG1011219
Vinyl chloride	U		0.000317	0.00109	1	08/19/2017 01:51	WG1011219
Xylenes, Total	U		0.000760	0.00327	1	08/19/2017 01:51	WG1011219
(S) Toluene-d8	95.5			80.0-120		08/20/2017 19:53	WG1011219
(S) Toluene-d8	109			80.0-120		08/19/2017 01:51	WG1011219
(S) Dibromofluoromethane	107			74.0-131		08/19/2017 01:51	WG1011219
(S) Dibromofluoromethane	106			74.0-131		08/20/2017 19:53	WG1011219
(S) 4-Bromofluorobenzene	104			64.0-132		08/19/2017 01:51	WG1011219
(S) 4-Bromofluorobenzene	98.8			64.0-132		08/20/2017 19:53	WG1011219

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.7		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.988	J	0.924	2.73	25	08/22/2017 14:25	WG1011765
(S) a,a,a-Trifluorotoluene(FID)	99.6			77.0-120		08/22/2017 14:25	WG1011765

3 Ss

4 Cn

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0109	0.0545	1	08/19/2017 02:11	WG1011219
Acrylonitrile	U		0.00195	0.0109	1	08/19/2017 02:11	WG1011219
Benzene	U		0.000294	0.00109	1	08/19/2017 02:11	WG1011219
Bromobenzene	U		0.000310	0.00109	1	08/19/2017 02:11	WG1011219
Bromodichloromethane	U		0.000277	0.00109	1	08/19/2017 02:11	WG1011219
Bromochloromethane	U		0.000425	0.00545	1	08/19/2017 02:11	WG1011219
Bromoform	U		0.000462	0.00109	1	08/19/2017 02:11	WG1011219
Bromomethane	U	JO	0.00146	0.00545	1	08/19/2017 02:11	WG1011219
n-Butylbenzene	U		0.000281	0.00109	1	08/19/2017 02:11	WG1011219
sec-Butylbenzene	U		0.000219	0.00109	1	08/19/2017 02:11	WG1011219
tert-Butylbenzene	U		0.000225	0.00109	1	08/19/2017 02:11	WG1011219
Carbon disulfide	0.000339	J	0.000241	0.00109	1	08/19/2017 02:11	WG1011219
Carbon tetrachloride	U		0.000358	0.00109	1	08/19/2017 02:11	WG1011219
Chlorobenzene	U		0.000231	0.00109	1	08/19/2017 02:11	WG1011219
Chlorodibromomethane	U		0.000407	0.00109	1	08/19/2017 02:11	WG1011219
Chloroethane	U		0.00103	0.00545	1	08/19/2017 02:11	WG1011219
Chloroform	U		0.000250	0.00545	1	08/19/2017 02:11	WG1011219
Chloromethane	U		0.000409	0.00273	1	08/19/2017 02:11	WG1011219
2-Chlorotoluene	U		0.000328	0.00109	1	08/19/2017 02:11	WG1011219
4-Chlorotoluene	U		0.000262	0.00109	1	08/19/2017 02:11	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00545	1	08/19/2017 02:11	WG1011219
1,2-Dibromoethane	U		0.000374	0.00109	1	08/19/2017 02:11	WG1011219
Dibromomethane	U		0.000416	0.00109	1	08/19/2017 02:11	WG1011219
1,2-Dichlorobenzene	U		0.000332	0.00109	1	08/19/2017 02:11	WG1011219
1,3-Dichlorobenzene	U		0.000261	0.00109	1	08/19/2017 02:11	WG1011219
1,4-Dichlorobenzene	U		0.000246	0.00109	1	08/19/2017 02:11	WG1011219
Dichlorodifluoromethane	U		0.000777	0.00545	1	08/19/2017 02:11	WG1011219
1,1-Dichloroethane	U		0.000217	0.00109	1	08/19/2017 02:11	WG1011219
1,2-Dichloroethane	U		0.000289	0.00109	1	08/19/2017 02:11	WG1011219
1,1-Dichloroethene	U		0.000330	0.00109	1	08/19/2017 02:11	WG1011219
cis-1,2-Dichloroethene	0.000647	J	0.000256	0.00109	1	08/19/2017 02:11	WG1011219
trans-1,2-Dichloroethene	U		0.000288	0.00109	1	08/19/2017 02:11	WG1011219
1,2-Dichloropropane	U		0.000390	0.00109	1	08/19/2017 02:11	WG1011219
1,1-Dichloropropene	U		0.000346	0.00109	1	08/19/2017 02:11	WG1011219
1,3-Dichloropropane	U		0.000226	0.00109	1	08/19/2017 02:11	WG1011219
cis-1,3-Dichloropropene	U		0.000286	0.00109	1	08/19/2017 02:11	WG1011219
trans-1,3-Dichloropropene	U		0.000291	0.00109	1	08/19/2017 02:11	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000848	0.00273	1	08/19/2017 02:11	WG1011219
2,2-Dichloropropane	U	JO	0.000304	0.00109	1	08/19/2017 02:11	WG1011219
Di-isopropyl ether	U		0.000270	0.00109	1	08/19/2017 02:11	WG1011219
Ethylbenzene	U		0.000324	0.00109	1	08/19/2017 02:11	WG1011219
Hexachloro-1,3-butadiene	U		0.000373	0.00109	1	08/19/2017 02:11	WG1011219
2-Hexanone	U		0.00149	0.0109	1	08/19/2017 02:11	WG1011219
n-Hexane	0.000634	J	0.000316	0.0109	1	08/19/2017 02:11	WG1011219

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/14/17 16:30

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00276	0.0109	1	08/19/2017 02:11	WG1011219
Isopropylbenzene	U		0.000265	0.00109	1	08/19/2017 02:11	WG1011219
p-Isopropyltoluene	U		0.000222	0.00109	1	08/19/2017 02:11	WG1011219
2-Butanone (MEK)	U		0.00510	0.0109	1	08/19/2017 02:11	WG1011219
Methylene Chloride	U		0.00109	0.00545	1	08/19/2017 02:11	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00205	0.0109	1	08/19/2017 02:11	WG1011219
Methyl tert-butyl ether	U		0.000231	0.00109	1	08/19/2017 02:11	WG1011219
Naphthalene	U		0.00109	0.00545	1	08/19/2017 02:11	WG1011219
n-Propylbenzene	U		0.000225	0.00109	1	08/19/2017 02:11	WG1011219
Styrene	U		0.000255	0.00109	1	08/19/2017 02:11	WG1011219
1,1,1-Tetrachloroethane	U		0.000288	0.00109	1	08/19/2017 02:11	WG1011219
1,1,2-Tetrachloroethane	U		0.000398	0.00109	1	08/19/2017 02:11	WG1011219
1,1,2-Trichlorotrifluoroethane	U	J0	0.000398	0.00109	1	08/19/2017 02:11	WG1011219
Tetrachloroethene	0.00283	J4	0.000301	0.00109	1	08/20/2017 20:19	WG1011219
Toluene	U		0.000473	0.00545	1	08/19/2017 02:11	WG1011219
1,2,3-Trichlorobenzene	U		0.000334	0.00109	1	08/19/2017 02:11	WG1011219
1,2,4-Trichlorobenzene	U		0.000423	0.00109	1	08/19/2017 02:11	WG1011219
1,1,1-Trichloroethane	U		0.000312	0.00109	1	08/19/2017 02:11	WG1011219
1,1,2-Trichloroethane	U		0.000302	0.00109	1	08/19/2017 02:11	WG1011219
Trichloroethene	U		0.000304	0.00109	1	08/19/2017 02:11	WG1011219
Trichlorofluoromethane	U		0.000416	0.00545	1	08/19/2017 02:11	WG1011219
1,2,3-Trichloropropane	U		0.000808	0.00273	1	08/19/2017 02:11	WG1011219
1,2,4-Trimethylbenzene	U		0.000230	0.00109	1	08/19/2017 02:11	WG1011219
1,2,3-Trimethylbenzene	U		0.000313	0.00109	1	08/19/2017 02:11	WG1011219
1,3,5-Trimethylbenzene	U		0.000290	0.00109	1	08/19/2017 02:11	WG1011219
Vinyl acetate	U		0.00261	0.0109	1	08/19/2017 02:11	WG1011219
Vinyl chloride	0.000386	J	0.000317	0.00109	1	08/19/2017 02:11	WG1011219
Xylenes, Total	U		0.000761	0.00327	1	08/19/2017 02:11	WG1011219
(S) Toluene-d8	107			80.0-120		08/19/2017 02:11	WG1011219
(S) Toluene-d8	96.9			80.0-120		08/20/2017 20:19	WG1011219
(S) Dibromofluoromethane	107			74.0-131		08/20/2017 20:19	WG1011219
(S) Dibromofluoromethane	107			74.0-131		08/19/2017 02:11	WG1011219
(S) 4-Bromofluorobenzene	102			64.0-132		08/19/2017 02:11	WG1011219
(S) 4-Bromofluorobenzene	100			64.0-132		08/20/2017 20:19	WG1011219

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/14/17 13:50

L929901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.1		1	08/21/2017 09:08	WG1011914

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0353	0.104	1	08/22/2017 14:47	WG1011765
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-120		08/22/2017 14:47	WG1011765

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0104	0.0520	1	08/19/2017 02:31	WG1011219
Acrylonitrile	U		0.00186	0.0104	1	08/19/2017 02:31	WG1011219
Benzene	U		0.000281	0.00104	1	08/19/2017 02:31	WG1011219
Bromobenzene	U		0.000295	0.00104	1	08/19/2017 02:31	WG1011219
Bromodichloromethane	U		0.000264	0.00104	1	08/19/2017 02:31	WG1011219
Bromochloromethane	U		0.000406	0.00520	1	08/19/2017 02:31	WG1011219
Bromoform	U		0.000441	0.00104	1	08/19/2017 02:31	WG1011219
Bromomethane	U	<u>JO</u>	0.00139	0.00520	1	08/19/2017 02:31	WG1011219
n-Butylbenzene	U		0.000268	0.00104	1	08/19/2017 02:31	WG1011219
sec-Butylbenzene	U		0.000209	0.00104	1	08/19/2017 02:31	WG1011219
tert-Butylbenzene	U		0.000214	0.00104	1	08/19/2017 02:31	WG1011219
Carbon disulfide	0.000485	<u>J</u>	0.000230	0.00104	1	08/19/2017 02:31	WG1011219
Carbon tetrachloride	U		0.000341	0.00104	1	08/19/2017 02:31	WG1011219
Chlorobenzene	U		0.000221	0.00104	1	08/19/2017 02:31	WG1011219
Chlorodibromomethane	U		0.000388	0.00104	1	08/19/2017 02:31	WG1011219
Chloroethane	U		0.000984	0.00520	1	08/19/2017 02:31	WG1011219
Chloroform	U		0.000238	0.00520	1	08/19/2017 02:31	WG1011219
Chloromethane	U		0.000390	0.00260	1	08/19/2017 02:31	WG1011219
2-Chlorotoluene	U		0.000313	0.00104	1	08/19/2017 02:31	WG1011219
4-Chlorotoluene	U		0.000250	0.00104	1	08/19/2017 02:31	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00109	0.00520	1	08/19/2017 02:31	WG1011219
1,2-Dibromoethane	U		0.000357	0.00104	1	08/19/2017 02:31	WG1011219
Dibromomethane	U		0.000397	0.00104	1	08/19/2017 02:31	WG1011219
1,2-Dichlorobenzene	U		0.000317	0.00104	1	08/19/2017 02:31	WG1011219
1,3-Dichlorobenzene	U		0.000249	0.00104	1	08/19/2017 02:31	WG1011219
1,4-Dichlorobenzene	U		0.000235	0.00104	1	08/19/2017 02:31	WG1011219
Dichlorodifluoromethane	U		0.000742	0.00520	1	08/19/2017 02:31	WG1011219
1,1-Dichloroethane	U		0.000207	0.00104	1	08/19/2017 02:31	WG1011219
1,2-Dichloroethane	U		0.000276	0.00104	1	08/19/2017 02:31	WG1011219
1,1-Dichloroethene	U		0.000315	0.00104	1	08/19/2017 02:31	WG1011219
cis-1,2-Dichloroethene	0.00686		0.000244	0.00104	1	08/19/2017 02:31	WG1011219
trans-1,2-Dichloroethene	U		0.000275	0.00104	1	08/19/2017 02:31	WG1011219
1,2-Dichloropropane	U		0.000372	0.00104	1	08/19/2017 02:31	WG1011219
1,1-Dichloropropene	U		0.000330	0.00104	1	08/19/2017 02:31	WG1011219
1,3-Dichloropropane	U		0.000215	0.00104	1	08/19/2017 02:31	WG1011219
cis-1,3-Dichloropropene	U		0.000273	0.00104	1	08/19/2017 02:31	WG1011219
trans-1,3-Dichloropropene	U		0.000278	0.00104	1	08/19/2017 02:31	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000809	0.00260	1	08/19/2017 02:31	WG1011219
2,2-Dichloropropane	U	<u>JO</u>	0.000290	0.00104	1	08/19/2017 02:31	WG1011219
Di-isopropyl ether	U		0.000258	0.00104	1	08/19/2017 02:31	WG1011219
Ethylbenzene	U		0.000309	0.00104	1	08/19/2017 02:31	WG1011219
Hexachloro-1,3-butadiene	U		0.000356	0.00104	1	08/19/2017 02:31	WG1011219
2-Hexanone	U		0.00143	0.0104	1	08/19/2017 02:31	WG1011219
n-Hexane	U		0.000302	0.0104	1	08/19/2017 02:31	WG1011219



Collected date/time: 08/14/17 13:50

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00263	0.0104	1	08/19/2017 02:31	WG1011219
Isopropylbenzene	U		0.000253	0.00104	1	08/19/2017 02:31	WG1011219
p-Isopropyltoluene	U		0.000212	0.00104	1	08/19/2017 02:31	WG1011219
2-Butanone (MEK)	U		0.00487	0.0104	1	08/19/2017 02:31	WG1011219
Methylene Chloride	U		0.00104	0.00520	1	08/19/2017 02:31	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00196	0.0104	1	08/19/2017 02:31	WG1011219
Methyl tert-butyl ether	U		0.000221	0.00104	1	08/19/2017 02:31	WG1011219
Naphthalene	U		0.00104	0.00520	1	08/19/2017 02:31	WG1011219
n-Propylbenzene	U		0.000214	0.00104	1	08/19/2017 02:31	WG1011219
Styrene	U		0.000243	0.00104	1	08/19/2017 02:31	WG1011219
1,1,1-Tetrachloroethane	U		0.000275	0.00104	1	08/19/2017 02:31	WG1011219
1,1,2-Tetrachloroethane	U		0.000380	0.00104	1	08/19/2017 02:31	WG1011219
1,1,2-Trichlorotrifluoroethane	U	<u>JO</u>	0.000380	0.00104	1	08/19/2017 02:31	WG1011219
Tetrachloroethene	0.00866	<u>JO J4</u>	0.000287	0.00104	1	08/19/2017 02:31	WG1011219
Toluene	U		0.000451	0.00520	1	08/19/2017 02:31	WG1011219
1,2,3-Trichlorobenzene	U		0.000318	0.00104	1	08/19/2017 02:31	WG1011219
1,2,4-Trichlorobenzene	U		0.000404	0.00104	1	08/19/2017 02:31	WG1011219
1,1,1-Trichloroethane	U		0.000298	0.00104	1	08/19/2017 02:31	WG1011219
1,1,2-Trichloroethane	U		0.000288	0.00104	1	08/19/2017 02:31	WG1011219
Trichloroethene	0.00248		0.000290	0.00104	1	08/19/2017 02:31	WG1011219
Trichlorofluoromethane	U		0.000397	0.00520	1	08/19/2017 02:31	WG1011219
1,2,3-Trichloropropane	U		0.000771	0.00260	1	08/19/2017 02:31	WG1011219
1,2,4-Trimethylbenzene	U		0.000219	0.00104	1	08/19/2017 02:31	WG1011219
1,2,3-Trimethylbenzene	U		0.000299	0.00104	1	08/19/2017 02:31	WG1011219
1,3,5-Trimethylbenzene	U		0.000277	0.00104	1	08/19/2017 02:31	WG1011219
Vinyl acetate	U		0.00249	0.0104	1	08/19/2017 02:31	WG1011219
Vinyl chloride	0.000368	<u>J</u>	0.000303	0.00104	1	08/19/2017 02:31	WG1011219
Xylenes, Total	U		0.000726	0.00312	1	08/19/2017 02:31	WG1011219
(S) Toluene-d8	112			80.0-120		08/19/2017 02:31	WG1011219
(S) Dibromofluoromethane	107			74.0-131		08/19/2017 02:31	WG1011219
(S) 4-Bromofluorobenzene	100			64.0-132		08/19/2017 02:31	WG1011219

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/14/17 00:00

L929901

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/20/2017 16:07	WG1011763
(S) a,a,a-Trifluorotoluene(FID)	98.4			77.0-122		08/20/2017 16:07	WG1011763

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<u>JO J3</u>	1.05	25.0	1	08/17/2017 22:38	WG1010972
Acrylonitrile	U		0.873	5.00	1	08/17/2017 22:38	WG1010972
Benzene	U		0.0896	0.500	1	08/17/2017 22:38	WG1010972
Bromobenzene	U		0.133	0.500	1	08/17/2017 22:38	WG1010972
Bromodichloromethane	U		0.0800	0.500	1	08/17/2017 22:38	WG1010972
Bromochloromethane	U		0.145	0.500	1	08/17/2017 22:38	WG1010972
Bromoform	U		0.186	0.500	1	08/17/2017 22:38	WG1010972
Bromomethane	U		0.157	2.50	1	08/17/2017 22:38	WG1010972
n-Butylbenzene	U		0.143	0.500	1	08/17/2017 22:38	WG1010972
sec-Butylbenzene	U		0.134	0.500	1	08/17/2017 22:38	WG1010972
tert-Butylbenzene	U		0.183	0.500	1	08/17/2017 22:38	WG1010972
Carbon disulfide	U		0.101	0.500	1	08/17/2017 22:38	WG1010972
Carbon tetrachloride	U		0.159	0.500	1	08/17/2017 22:38	WG1010972
Chlorobenzene	U		0.140	0.500	1	08/17/2017 22:38	WG1010972
Chlorodibromomethane	U		0.128	0.500	1	08/17/2017 22:38	WG1010972
Chloroethane	U		0.141	2.50	1	08/17/2017 22:38	WG1010972
Chloroform	U		0.0860	0.500	1	08/17/2017 22:38	WG1010972
Chloromethane	U		0.153	1.25	1	08/17/2017 22:38	WG1010972
2-Chlorotoluene	U		0.111	0.500	1	08/17/2017 22:38	WG1010972
4-Chlorotoluene	U		0.0972	0.500	1	08/17/2017 22:38	WG1010972
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/17/2017 22:38	WG1010972
1,2-Dibromoethane	U		0.193	0.500	1	08/17/2017 22:38	WG1010972
Dibromomethane	U		0.117	0.500	1	08/17/2017 22:38	WG1010972
1,2-Dichlorobenzene	U		0.101	0.500	1	08/17/2017 22:38	WG1010972
1,3-Dichlorobenzene	U		0.130	0.500	1	08/17/2017 22:38	WG1010972
1,4-Dichlorobenzene	U		0.121	0.500	1	08/17/2017 22:38	WG1010972
Dichlorodifluoromethane	U	<u>JO</u>	0.127	2.50	1	08/17/2017 22:38	WG1010972
1,1-Dichloroethane	U		0.114	0.500	1	08/17/2017 22:38	WG1010972
1,2-Dichloroethane	U		0.108	0.500	1	08/17/2017 22:38	WG1010972
1,1-Dichloroethene	U		0.188	0.500	1	08/17/2017 22:38	WG1010972
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/17/2017 22:38	WG1010972
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/17/2017 22:38	WG1010972
1,2-Dichloropropane	U		0.190	0.500	1	08/17/2017 22:38	WG1010972
1,1-Dichloropropene	U		0.128	0.500	1	08/17/2017 22:38	WG1010972
1,3-Dichloropropane	U		0.147	1.00	1	08/17/2017 22:38	WG1010972
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/17/2017 22:38	WG1010972
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/17/2017 22:38	WG1010972
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/17/2017 22:38	WG1010972
2,2-Dichloropropane	U		0.0929	0.500	1	08/17/2017 22:38	WG1010972
Di-isopropyl ether	U		0.0924	0.500	1	08/17/2017 22:38	WG1010972
Ethylbenzene	U		0.158	0.500	1	08/17/2017 22:38	WG1010972
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/17/2017 22:38	WG1010972
2-Hexanone	U		0.757	5.00	1	08/17/2017 22:38	WG1010972
n-Hexane	U		0.305	5.00	1	08/17/2017 22:38	WG1010972
Iodomethane	U		0.377	10.0	1	08/17/2017 22:38	WG1010972
Isopropylbenzene	U		0.126	0.500	1	08/17/2017 22:38	WG1010972
p-Isopropyltoluene	U		0.138	0.500	1	08/17/2017 22:38	WG1010972
2-Butanone (MEK)	U	<u>JO</u>	1.28	5.00	1	08/17/2017 22:38	WG1010972



Collected date/time: 08/14/17 00:00

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	08/17/2017 22:38	WG1010972
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/17/2017 22:38	WG1010972
Methyl tert-butyl ether	U		0.102	0.500	1	08/17/2017 22:38	WG1010972
Naphthalene	U		0.174	2.50	1	08/17/2017 22:38	WG1010972
n-Propylbenzene	U		0.162	0.500	1	08/17/2017 22:38	WG1010972
Styrene	U		0.117	0.500	1	08/17/2017 22:38	WG1010972
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/17/2017 22:38	WG1010972
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/17/2017 22:38	WG1010972
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/17/2017 22:38	WG1010972
Tetrachloroethene	U		0.199	0.500	1	08/17/2017 22:38	WG1010972
Toluene	U		0.412	0.500	1	08/17/2017 22:38	WG1010972
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/17/2017 22:38	WG1010972
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/17/2017 22:38	WG1010972
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/17/2017 22:38	WG1010972
1,1,2-Trichloroethane	U		0.186	0.500	1	08/17/2017 22:38	WG1010972
Trichloroethene	U		0.153	0.500	1	08/17/2017 22:38	WG1010972
Trichlorofluoromethane	U		0.130	2.50	1	08/17/2017 22:38	WG1010972
1,2,3-Trichloropropane	U		0.247	2.50	1	08/17/2017 22:38	WG1010972
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/17/2017 22:38	WG1010972
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/17/2017 22:38	WG1010972
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/17/2017 22:38	WG1010972
Vinyl acetate	U		0.645	5.00	1	08/17/2017 22:38	WG1010972
Vinyl chloride	U		0.118	0.500	1	08/17/2017 22:38	WG1010972
Xylenes, Total	U		0.316	1.50	1	08/17/2017 22:38	WG1010972
(S) Toluene-d8	104			80.0-120		08/17/2017 22:38	WG1010972
(S) Dibromofluoromethane	101			76.0-123		08/17/2017 22:38	WG1010972
(S) 4-Bromofluorobenzene	107			80.0-120		08/17/2017 22:38	WG1010972

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3243133-1 08/21/17 09:20

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Total Solids	0.000600			

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

L929881-04 Original Sample (OS) • Duplicate (DUP)

(OS) L929881-04 08/21/17 09:20 • (DUP) R3243133-3 08/21/17 09:20

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits
Total Solids	81.8	80.8	1	1.19		5

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3243133-2 08/21/17 09:20

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3243129-1 08/21/17 09:08

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Total Solids	0.00100			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L930399-01 Original Sample (OS) • Duplicate (DUP)

(OS) L930399-01 08/21/17 09:08 • (DUP) R3243129-3 08/21/17 09:08

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits
Total Solids	85.4	85.0	1	0.488		5

⁷ Gl

⁸ Al

Laboratory Control Sample (LCS)

(LCS) R3243129-2 08/21/17 09:08

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Total Solids	50.0	49.9	99.8	85.0-115	

⁹ Sc



Method Blank (MB)

(MB) R3243132-3 08/20/17 13:46

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C6 - C12	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	93.7			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243132-1 08/20/17 12:40 • (LCSD) R3243132-2 08/20/17 13:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5.50	6.19	5.99	113	109	70.0-133			3.25	20
(S) a,a,a-Trifluorotoluene(FID)				109	108	77.0-120				

5 Sr

6 Qc

7 Gl

L930282-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L930282-05 08/21/17 02:13 • (MS) R3243132-4 08/21/17 01:07 • (MSD) R3243132-5 08/21/17 01:29

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5.50	148	305	282	98.6	84.4	29	10.0-146			7.75	30
(S) a,a,a-Trifluorotoluene(FID)					104	103		77.0-120				

8 Al

9 Sc



Method Blank (MB)

(MB) R3243601-3 08/22/17 13:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C6 - C12	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.8			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243601-1 08/22/17 12:04 • (LCSD) R3243601-2 08/22/17 12:25

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5.50	5.70	4.79	104	87.0	70.0-133			17.4	20
(S) a,a,a-Trifluorotoluene(FID)				103	101	77.0-120				

5 Sr

6 Qc

7 Gl

L929901-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L929901-07 08/22/17 14:04 • (MS) R3243601-4 08/22/17 21:14 • (MSD) R3243601-5 08/22/17 21:35

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5.99	1.10	156	153	101	98.5	25.75	10.0-146			2.01	30
(S) a,a,a-Trifluorotoluene(FID)					102	101		77.0-120				

8 Al

9 Sc



Method Blank (MB)

(MB) R3243205-3 08/20/17 14:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	99.1			77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243205-1 08/20/17 13:17 • (LCSD) R3243205-2 08/20/17 13:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5950	6040	108	110	72.0-134			1.57	20
(S) a,a,a-Trifluorotoluene(FID)				105	106	77.0-122				

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3243220-3 08/22/17 00:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3243220-3 08/22/17 00:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	U		0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	109			74.0-131
(S) 4-Bromofluorobenzene	106			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243220-1 08/21/17 23:10 • (LCSD) R3243220-2 08/21/17 23:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	0.147	0.158	117	126	11.0-160			7.22	23
Acrylonitrile	0.125	0.148	0.160	118	128	61.0-143			8.08	20
Benzene	0.0250	0.0273	0.0275	109	110	71.0-124			0.860	20
Bromobenzene	0.0250	0.0280	0.0290	112	116	78.0-120			3.27	20
Bromodichloromethane	0.0250	0.0266	0.0267	106	107	75.0-120			0.430	20
Bromochloromethane	0.0250	0.0272	0.0274	109	110	80.0-121			0.550	20
Bromoform	0.0250	0.0290	0.0316	116	126	65.0-133			8.35	20
Bromomethane	0.0250	0.0253	0.0257	101	103	26.0-160			1.32	20
n-Butylbenzene	0.0250	0.0226	0.0234	90.3	93.8	73.0-126			3.72	20
sec-Butylbenzene	0.0250	0.0255	0.0263	102	105	75.0-121			3.25	20
tert-Butylbenzene	0.0250	0.0260	0.0270	104	108	74.0-122			3.77	20
Carbon disulfide	0.0250	0.0290	0.0294	116	117	53.0-130			1.41	20
Carbon tetrachloride	0.0250	0.0261	0.0264	104	106	66.0-123			1.37	20
Chlorobenzene	0.0250	0.0245	0.0251	98.0	100	79.0-121			2.25	20
Chlorodibromomethane	0.0250	0.0255	0.0277	102	111	74.0-128			8.30	20
Chloroethane	0.0250	0.0266	0.0272	106	109	51.0-147			2.18	20
Chloroform	0.0250	0.0273	0.0273	109	109	73.0-123			0.0700	20
Chloromethane	0.0250	0.0261	0.0265	104	106	51.0-138			1.53	20
2-Chlorotoluene	0.0250	0.0270	0.0282	108	113	72.0-124			4.65	20
4-Chlorotoluene	0.0250	0.0267	0.0277	107	111	78.0-120			3.60	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0220	0.0273	87.9	109	65.0-126		J3	21.6	20
1,2-Dibromoethane	0.0250	0.0246	0.0263	98.4	105	78.0-122			6.56	20
Dibromomethane	0.0250	0.0263	0.0270	105	108	79.0-120			2.82	20
1,2-Dichlorobenzene	0.0250	0.0248	0.0255	99.4	102	80.0-120			2.71	20
1,3-Dichlorobenzene	0.0250	0.0235	0.0238	93.8	95.0	72.0-123			1.28	20
1,4-Dichlorobenzene	0.0250	0.0233	0.0234	93.1	93.6	77.0-120			0.620	20
trans-1,4-Dichloro-2-butene	0.0250	0.0259	0.0269	104	108	68.0-126			3.68	20
Dichlorodifluoromethane	0.0250	0.0233	0.0236	93.1	94.4	49.0-155			1.36	20
1,1-Dichloroethane	0.0250	0.0288	0.0287	115	115	70.0-128			0.0900	20
1,2-Dichloroethane	0.0250	0.0286	0.0291	114	117	69.0-128			1.85	20
1,1-Dichloroethene	0.0250	0.0251	0.0258	100	103	63.0-131			2.56	20
cis-1,2-Dichloroethene	0.0250	0.0276	0.0279	110	111	74.0-123			0.980	20
trans-1,2-Dichloroethene	0.0250	0.0266	0.0266	107	107	72.0-122			0.0100	20
1,2-Dichloropropane	0.0250	0.0277	0.0280	111	112	75.0-126			1.13	20
1,1-Dichloropropene	0.0250	0.0288	0.0291	115	117	72.0-130			1.27	20
1,3-Dichloropropane	0.0250	0.0246	0.0273	98.3	109	80.0-121			10.5	20
cis-1,3-Dichloropropene	0.0250	0.0274	0.0284	109	114	80.0-125			3.90	20
trans-1,3-Dichloropropene	0.0250	0.0260	0.0271	104	108	75.0-129			4.11	20
2,2-Dichloropropane	0.0250	0.0260	0.0262	104	105	60.0-129			0.970	20
Di-isopropyl ether	0.0250	0.0290	0.0297	116	119	62.0-133			2.35	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243220-1 08/21/17 23:10 • (LCSD) R3243220-2 08/21/17 23:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0240	0.0240	95.8	96.2	77.0-120			0.360	20
Hexachloro-1,3-butadiene	0.0250	0.0210	0.0222	83.9	88.7	68.0-128			5.53	20
2-Hexanone	0.125	0.121	0.140	96.8	112	61.0-143			14.8	20
n-Hexane	0.0250	0.0267	0.0270	107	108	57.0-125			0.980	20
Iodomethane	0.125	0.139	0.140	112	112	67.0-132			0.530	20
Isopropylbenzene	0.0250	0.0267	0.0278	107	111	75.0-120			4.27	20
p-Isopropyltoluene	0.0250	0.0249	0.0257	99.6	103	74.0-125			2.98	20
2-Butanone (MEK)	0.125	0.113	0.123	90.1	98.7	37.0-159			9.11	20
Methylene Chloride	0.0250	0.0225	0.0228	89.9	91.0	67.0-123			1.25	20
4-Methyl-2-pentanone (MIBK)	0.125	0.124	0.140	99.0	112	60.0-144			12.5	20
Methyl tert-butyl ether	0.0250	0.0268	0.0280	107	112	66.0-125			4.46	20
Naphthalene	0.0250	0.0204	0.0232	81.7	92.6	64.0-125			12.5	20
n-Propylbenzene	0.0250	0.0269	0.0278	108	111	78.0-120			3.19	20
Styrene	0.0250	0.0282	0.0292	113	117	78.0-124			3.58	20
1,1,1,2-Tetrachloroethane	0.0250	0.0242	0.0244	96.6	97.7	74.0-124			1.17	20
1,1,2,2-Tetrachloroethane	0.0250	0.0264	0.0292	106	117	73.0-120			10.1	20
Tetrachloroethene	0.0250	0.0230	0.0238	91.8	95.1	70.0-127			3.53	20
Toluene	0.0250	0.0234	0.0243	93.4	97.1	77.0-120			3.85	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0273	0.0271	109	108	64.0-135			0.980	20
1,2,3-Trichlorobenzene	0.0250	0.0197	0.0213	78.8	85.4	68.0-126			8.00	20
1,2,4-Trichlorobenzene	0.0250	0.0196	0.0203	78.4	81.4	70.0-127			3.71	20
1,1,1-Trichloroethane	0.0250	0.0275	0.0276	110	110	69.0-125			0.410	20
1,1,2-Trichloroethane	0.0250	0.0235	0.0251	93.8	100	78.0-120			6.70	20
Trichloroethene	0.0250	0.0256	0.0265	102	106	79.0-120			3.60	20
Trichlorofluoromethane	0.0250	0.0249	0.0260	99.5	104	59.0-136			4.34	20
1,2,3-Trichloropropane	0.0250	0.0253	0.0281	101	112	73.0-124			10.3	20
1,2,3-Trimethylbenzene	0.0250	0.0249	0.0256	99.7	102	76.0-120			2.55	20
1,2,4-Trimethylbenzene	0.0250	0.0250	0.0262	99.9	105	75.0-120			4.62	20
1,3,5-Trimethylbenzene	0.0250	0.0251	0.0264	101	106	75.0-120			4.84	20
Vinyl acetate	0.125	0.138	0.141	111	113	58.0-156			1.94	20
Vinyl chloride	0.0250	0.0265	0.0269	106	108	63.0-134			1.36	20
Xylenes, Total	0.0750	0.0700	0.0720	93.3	96.0	77.0-120			2.82	20
(S) Toluene-d8				103	105	80.0-120				
(S) Dibromofluoromethane				111	109	74.0-131				
(S) 4-Bromofluorobenzene				105	111	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L929784-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L929784-07 08/22/17 02:20 • (MS) R3243220-4 08/22/17 10:05 • (MSD) R3243220-5 08/22/17 10:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.147	ND	6.27	6.73	171	184	25	10.0-160	J5	J5	7.09	36
Acrylonitrile	0.147	ND	4.07	4.08	111	111	25	14.0-160			0.130	33
Benzene	0.0293	ND	0.765	0.773	104	105	25	13.0-146			1.00	27
Bromobenzene	0.0293	ND	0.784	0.827	107	113	25	10.0-149			5.33	33
Bromodichloromethane	0.0293	ND	0.763	0.768	104	105	25	15.0-142			0.630	28
Bromochloromethane	0.0293	ND	0.745	0.750	102	102	25	24.0-146			0.760	27
Bromoform	0.0293	ND	0.776	0.813	106	111	25	10.0-147			4.58	31
Bromomethane	0.0293	ND	0.868	0.873	118	119	25	10.0-160			0.640	32
n-Butylbenzene	0.0293	ND	0.763	0.851	100	112	25	10.0-154			11.0	37
sec-Butylbenzene	0.0293	ND	0.768	0.818	104	110	25	10.0-151			6.32	36
tert-Butylbenzene	0.0293	ND	0.758	0.800	103	109	25	10.0-152			5.38	35
Carbon disulfide	0.0293	ND	0.622	0.614	84.9	83.8	25	10.0-141			1.30	30
Carbon tetrachloride	0.0293	ND	0.719	0.726	98.1	99.0	25	13.0-140			1.00	30
Chlorobenzene	0.0293	ND	0.684	0.695	93.3	94.9	25	10.0-149			1.65	31
Chlorodibromomethane	0.0293	ND	0.692	0.718	94.5	98.0	25	12.0-147			3.63	29
Chloroethane	0.0293	ND	0.683	0.657	93.3	89.6	25	10.0-159			3.94	33
Chloroform	0.0293	ND	0.765	0.767	104	105	25	18.0-148			0.290	28
Chloromethane	0.0293	ND	0.670	0.652	91.5	88.9	25	10.0-146			2.82	29
2-Chlorotoluene	0.0293	ND	0.778	0.825	106	113	25	10.0-151			5.85	35
4-Chlorotoluene	0.0293	ND	0.766	0.809	104	110	25	10.0-150			5.51	35
1,2-Dibromo-3-Chloropropane	0.0293	ND	0.730	0.753	99.6	103	25	10.0-149			3.09	34
1,2-Dibromoethane	0.0293	ND	0.678	0.684	92.6	93.3	25	14.0-145			0.770	28
Dibromomethane	0.0293	ND	0.728	0.736	99.4	100	25	18.0-144			1.04	27
1,2-Dichlorobenzene	0.0293	ND	0.752	0.794	103	108	25	10.0-153			5.45	34
1,3-Dichlorobenzene	0.0293	ND	0.719	0.762	98.1	104	25	10.0-150			5.83	35
1,4-Dichlorobenzene	0.0293	ND	0.709	0.766	96.8	105	25	10.0-148			7.71	34
trans-1,4-Dichloro-2-butene	0.0293	ND	0.822	0.905	112	123	25	10.0-160			9.68	40
Dichlorodifluoromethane	0.0293	ND	0.591	0.600	80.6	81.9	25	10.0-160			1.61	30
1,1-Dichloroethane	0.0293	ND	0.803	0.795	110	108	25	19.0-148			1.07	28
1,2-Dichloroethane	0.0293	ND	0.789	0.803	108	110	25	17.0-147			1.83	27
1,1-Dichloroethene	0.0293	ND	0.670	0.662	91.5	90.3	25	10.0-150			1.30	31
cis-1,2-Dichloroethene	0.0293	ND	0.765	0.747	104	102	25	16.0-145			2.43	28
trans-1,2-Dichloroethene	0.0293	ND	0.691	0.690	94.3	94.2	25	11.0-142			0.120	29
1,2-Dichloropropane	0.0293	ND	0.791	0.804	108	110	25	17.0-148			1.63	28
1,1-Dichloropropene	0.0293	ND	0.751	0.748	103	102	25	10.0-150			0.430	30
1,3-Dichloropropane	0.0293	ND	0.698	0.717	95.2	97.8	25	16.0-148			2.62	27
cis-1,3-Dichloropropene	0.0293	ND	0.707	0.726	96.4	99.1	25	13.0-150			2.73	28
trans-1,3-Dichloropropene	0.0293	ND	0.709	0.724	96.7	98.8	25	10.0-152			2.14	29
2,2-Dichloropropane	0.0293	ND	0.682	0.665	93.0	90.8	25	16.0-143			2.42	30

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L929784-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L929784-07 08/22/17 02:20 • (MS) R3243220-4 08/22/17 10:05 • (MSD) R3243220-5 08/22/17 10:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	0.0293	ND	0.862	0.856	118	117	25	16.0-149			0.700	28
Ethylbenzene	0.0293	ND	0.688	0.700	90.6	92.2	25	10.0-147			1.67	31
Hexachloro-1,3-butadiene	0.0293	ND	0.734	0.778	100	106	25	10.0-154			5.73	40
2-Hexanone	0.147	ND	3.86	4.02	105	110	25	12.0-158			4.10	30
n-Hexane	0.0293	ND	0.680	0.689	89.4	90.6	25	10.0-140			1.34	34
Iodomethane	0.147	ND	3.43	3.39	93.7	92.5	25	10.0-157			1.21	34
Isopropylbenzene	0.0293	ND	0.768	0.819	104	111	25	10.0-147			6.43	33
p-Isopropyltoluene	0.0293	ND	0.757	0.821	102	111	25	10.0-156			8.06	37
2-Butanone (MEK)	0.147	ND	4.04	4.18	110	114	25	10.0-160			3.40	33
Methylene Chloride	0.0293	ND	0.587	0.571	80.1	77.9	25	16.0-139			2.72	29
4-Methyl-2-pentanone (MIBK)	0.147	ND	3.60	3.61	98.2	98.4	25	12.0-160			0.290	32
Methyl tert-butyl ether	0.0293	0.0458	0.806	0.792	104	102	25	21.0-145			1.69	29
Naphthalene	0.0293	ND	0.827	0.884	99.3	107	25	10.0-153			6.67	36
n-Propylbenzene	0.0293	0.0414	0.816	0.871	106	113	25	10.0-151			6.49	34
Styrene	0.0293	ND	0.757	0.789	103	108	25	10.0-155			4.08	34
1,1,1,2-Tetrachloroethane	0.0293	ND	0.698	0.680	95.2	92.8	25	10.0-147			2.55	30
1,1,2,2-Tetrachloroethane	0.0293	ND	0.751	0.783	103	107	25	10.0-155			4.08	31
Tetrachloroethene	0.0293	ND	0.635	0.649	86.6	88.6	25	10.0-144			2.33	32
Toluene	0.0293	ND	0.655	0.674	89.4	92.0	25	10.0-144			2.82	28
1,1,2-Trichlorotrifluoroethane	0.0293	ND	0.722	0.737	98.5	101	25	10.0-153			2.06	33
1,2,3-Trichlorobenzene	0.0293	ND	0.740	0.791	101	108	25	10.0-153			6.67	40
1,2,4-Trichlorobenzene	0.0293	ND	0.702	0.794	95.7	108	25	10.0-156			12.4	40
1,1,1-Trichloroethane	0.0293	ND	0.766	0.761	105	104	25	18.0-145			0.730	29
1,1,2-Trichloroethane	0.0293	ND	0.674	0.685	91.9	93.4	25	12.0-151			1.65	28
Trichloroethene	0.0293	ND	0.695	0.710	94.8	96.9	25	11.0-148			2.14	29
Trichlorofluoromethane	0.0293	ND	0.825	0.809	113	110	25	10.0-157			2.03	34
1,2,3-Trichloropropane	0.0293	ND	0.719	0.716	98.2	97.7	25	10.0-154			0.460	32
1,2,3-Trimethylbenzene	0.0293	0.121	0.865	0.918	102	109	25	10.0-150			5.99	33
1,2,4-Trimethylbenzene	0.0293	0.411	1.11	1.21	95.1	110	25	10.0-151			9.13	34
1,3,5-Trimethylbenzene	0.0293	0.0792	0.819	0.879	101	109	25	10.0-150			7.10	33
Vinyl acetate	0.147	ND	3.77	3.55	103	96.8	25	10.0-160			6.10	40
Vinyl chloride	0.0293	ND	0.662	0.671	90.3	91.5	25	10.0-150			1.30	29
Xylenes, Total	0.0879	ND	2.19	2.23	99.6	101	25	10.0-150			1.75	31
(S) Toluene-d8					99.7	101		80.0-120				
(S) Dibromofluoromethane					108	104		74.0-131				
(S) 4-Bromofluorobenzene					103	104		64.0-132				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Sample Narrative:

OS: Target compounds too high to run at a lower dilution.



Method Blank (MB)

(MB) R3242760-3 08/19/17 00:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3242760-3 08/19/17 00:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	U		0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	117			80.0-120
(S) Dibromofluoromethane	101			74.0-131
(S) 4-Bromofluorobenzene	103			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3242760-1 08/18/17 23:33 • (LCSD) R3242760-2 08/18/17 23:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	0.110	0.105	88.4	83.7	11.0-160			5.38	23
Acrylonitrile	0.125	0.105	0.0988	84.3	79.0	61.0-143			6.41	20
Benzene	0.0250	0.0245	0.0236	98.0	94.3	71.0-124			3.88	20
Bromobenzene	0.0250	0.0268	0.0251	107	100	78.0-120			6.77	20
Bromodichloromethane	0.0250	0.0255	0.0242	102	97.0	75.0-120			5.10	20
Bromochloromethane	0.0250	0.0280	0.0272	112	109	80.0-121			2.95	20
Bromoform	0.0250	0.0282	0.0260	113	104	65.0-133			8.14	20
Bromomethane	0.0250	0.0194	0.0192	77.7	76.8	26.0-160			1.21	20
n-Butylbenzene	0.0250	0.0264	0.0250	106	100	73.0-126			5.38	20
sec-Butylbenzene	0.0250	0.0278	0.0265	111	106	75.0-121			4.74	20
tert-Butylbenzene	0.0250	0.0277	0.0258	111	103	74.0-122			7.31	20
Carbon disulfide	0.0250	0.0235	0.0229	94.0	91.5	53.0-130			2.68	20
Carbon tetrachloride	0.0250	0.0220	0.0214	88.0	85.7	66.0-123			2.55	20
Chlorobenzene	0.0250	0.0289	0.0277	116	111	79.0-121			4.30	20
Chlorodibromomethane	0.0250	0.0277	0.0259	111	104	74.0-128			6.76	20
Chloroethane	0.0250	0.0217	0.0205	86.8	82.2	51.0-147			5.44	20
Chloroform	0.0250	0.0245	0.0237	98.1	94.6	73.0-123			3.62	20
Chloromethane	0.0250	0.0225	0.0218	89.8	87.1	51.0-138			3.03	20
2-Chlorotoluene	0.0250	0.0272	0.0257	109	103	72.0-124			5.84	20
4-Chlorotoluene	0.0250	0.0271	0.0253	108	101	78.0-120			6.87	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0243	0.0221	97.3	88.4	65.0-126			9.62	20
1,2-Dibromoethane	0.0250	0.0298	0.0286	119	114	78.0-122			4.26	20
Dibromomethane	0.0250	0.0237	0.0227	94.9	90.8	79.0-120			4.44	20
1,2-Dichlorobenzene	0.0250	0.0266	0.0249	107	99.5	80.0-120			6.84	20
1,3-Dichlorobenzene	0.0250	0.0277	0.0258	111	103	72.0-123			6.97	20
1,4-Dichlorobenzene	0.0250	0.0278	0.0262	111	105	77.0-120			6.16	20
trans-1,4-Dichloro-2-butene	0.0250	0.0209	0.0196	83.7	78.4	68.0-126			6.54	20
Dichlorodifluoromethane	0.0250	0.0215	0.0214	86.1	85.8	49.0-155			0.360	20
1,1-Dichloroethane	0.0250	0.0253	0.0245	101	97.9	70.0-128			3.24	20
1,2-Dichloroethane	0.0250	0.0232	0.0220	92.7	87.8	69.0-128			5.39	20
1,1-Dichloroethene	0.0250	0.0226	0.0212	90.5	84.9	63.0-131			6.42	20
cis-1,2-Dichloroethene	0.0250	0.0260	0.0252	104	101	74.0-123			3.14	20
trans-1,2-Dichloroethene	0.0250	0.0276	0.0261	111	104	72.0-122			5.71	20
1,2-Dichloropropane	0.0250	0.0250	0.0241	99.9	96.3	75.0-126			3.62	20
1,1-Dichloropropene	0.0250	0.0242	0.0237	97.0	94.7	72.0-130			2.39	20
1,3-Dichloropropane	0.0250	0.0278	0.0266	111	106	80.0-121			4.37	20
cis-1,3-Dichloropropene	0.0250	0.0284	0.0273	114	109	80.0-125			4.05	20
trans-1,3-Dichloropropene	0.0250	0.0279	0.0267	111	107	75.0-129			4.13	20
2,2-Dichloropropane	0.0250	0.0187	0.0191	74.9	76.4	60.0-129			1.94	20
Di-isopropyl ether	0.0250	0.0231	0.0221	92.3	88.6	62.0-133			4.09	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3242760-1 08/18/17 23:33 • (LCSD) R3242760-2 08/18/17 23:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0289	0.0283	115	113	77.0-120			1.99	20
Hexachloro-1,3-butadiene	0.0250	0.0284	0.0281	114	112	68.0-128			1.08	20
2-Hexanone	0.125	0.127	0.121	102	97.1	61.0-143			4.47	20
n-Hexane	0.0250	0.0234	0.0232	93.7	93.0	57.0-125			0.810	20
Iodomethane	0.125	0.119	0.116	95.2	92.5	67.0-132			2.89	20
Isopropylbenzene	0.0250	0.0276	0.0254	110	102	75.0-120			8.05	20
p-Isopropyltoluene	0.0250	0.0285	0.0266	114	106	74.0-125			7.02	20
2-Butanone (MEK)	0.125	0.111	0.106	88.5	84.4	37.0-159			4.71	20
Methylene Chloride	0.0250	0.0246	0.0236	98.5	94.5	67.0-123			4.16	20
4-Methyl-2-pentanone (MIBK)	0.125	0.110	0.105	88.2	83.7	60.0-144			5.32	20
Methyl tert-butyl ether	0.0250	0.0196	0.0197	78.5	78.6	66.0-125			0.220	20
Naphthalene	0.0250	0.0240	0.0233	96.1	93.1	64.0-125			3.12	20
n-Propylbenzene	0.0250	0.0278	0.0256	111	102	78.0-120			8.25	20
Styrene	0.0250	0.0273	0.0244	109	97.5	78.0-124			11.2	20
1,1,1,2-Tetrachloroethane	0.0250	0.0265	0.0260	106	104	74.0-124			1.96	20
1,1,2,2-Tetrachloroethane	0.0250	0.0245	0.0220	97.8	88.0	73.0-120			10.6	20
Tetrachloroethene	0.0250	0.0320	0.0313	128	125	70.0-127	J4		2.39	20
Toluene	0.0250	0.0276	0.0271	110	108	77.0-120			1.95	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0208	0.0203	83.3	81.0	64.0-135			2.73	20
1,2,3-Trichlorobenzene	0.0250	0.0280	0.0268	112	107	68.0-126			4.33	20
1,2,4-Trichlorobenzene	0.0250	0.0268	0.0257	107	103	70.0-127			4.02	20
1,1,1-Trichloroethane	0.0250	0.0233	0.0221	93.3	88.4	69.0-125			5.36	20
1,1,2-Trichloroethane	0.0250	0.0272	0.0260	109	104	78.0-120			4.42	20
Trichloroethene	0.0250	0.0266	0.0258	106	103	79.0-120			2.87	20
Trichlorofluoromethane	0.0250	0.0215	0.0211	86.1	84.6	59.0-136			1.79	20
1,2,3-Trichloropropane	0.0250	0.0243	0.0223	97.2	89.0	73.0-124			8.75	20
1,2,3-Trimethylbenzene	0.0250	0.0256	0.0244	102	97.7	76.0-120			4.74	20
1,2,4-Trimethylbenzene	0.0250	0.0264	0.0248	106	99.2	75.0-120			6.34	20
1,3,5-Trimethylbenzene	0.0250	0.0275	0.0260	110	104	75.0-120			5.78	20
Vinyl acetate	0.125	0.118	0.109	94.2	87.3	58.0-156			7.55	20
Vinyl chloride	0.0250	0.0227	0.0219	90.9	87.4	63.0-134			3.90	20
Xylenes, Total	0.0750	0.0868	0.0837	116	112	77.0-120			3.64	20
(S) Toluene-d8				116	117	80.0-120				
(S) Dibromofluoromethane				102	99.7	74.0-131				
(S) 4-Bromofluorobenzene				105	102	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L930246-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L930246-01 08/19/17 05:48 • (MS) R3242760-4 08/19/17 07:46 • (MSD) R3242760-5 08/19/17 08:06

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	ND	1.88	2.09	60.0	67.0	25	10.0-160			10.9	36
Acrylonitrile	0.125	ND	2.32	2.18	74.1	69.9	25	14.0-160			5.86	33
Benzene	0.0250	ND	0.508	0.488	81.3	78.0	25	13.0-146			4.15	27
Bromobenzene	0.0250	ND	0.533	0.517	85.3	82.8	25	10.0-149			2.99	33
Bromodichloromethane	0.0250	ND	0.522	0.509	83.5	81.4	25	15.0-142			2.63	28
Bromochloromethane	0.0250	ND	0.580	0.546	92.8	87.4	25	24.0-146			5.98	27
Bromoform	0.0250	ND	0.579	0.579	92.6	92.6	25	10.0-147			0.000	31
Bromomethane	0.0250	ND	0.270	0.244	43.2	39.0	25	10.0-160			10.2	32
n-Butylbenzene	0.0250	0.0986	0.606	0.623	81.2	83.9	25	10.0-154			2.72	37
sec-Butylbenzene	0.0250	0.0744	0.630	0.644	88.9	91.2	25	10.0-151			2.25	36
tert-Butylbenzene	0.0250	ND	0.599	0.597	92.8	92.5	25	10.0-152			0.350	35
Carbon disulfide	0.0250	ND	0.472	0.450	75.5	72.1	25	10.0-141			4.62	30
Carbon tetrachloride	0.0250	ND	0.437	0.424	70.0	67.9	25	13.0-140			3.07	30
Chlorobenzene	0.0250	0.0365	0.592	0.537	88.9	80.1	25	10.0-149			9.84	31
Chlorodibromomethane	0.0250	ND	0.509	0.486	81.4	77.7	25	12.0-147			4.64	29
Chloroethane	0.0250	ND	0.136	0.127	21.8	20.3	25	10.0-159			7.05	33
Chloroform	0.0250	ND	0.521	0.480	82.3	75.7	25	18.0-148			8.24	28
Chloromethane	0.0250	ND	0.472	0.432	75.5	69.1	25	10.0-146			8.86	29
2-Chlorotoluene	0.0250	ND	0.585	0.571	91.7	89.6	25	10.0-151			2.26	35
4-Chlorotoluene	0.0250	0.0545	0.580	0.567	84.1	82.0	25	10.0-150			2.26	35
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.530	0.547	84.8	87.6	25	10.0-149			3.15	34
1,2-Dibromoethane	0.0250	ND	0.578	0.532	90.6	83.2	25	14.0-145			8.31	28
Dibromomethane	0.0250	ND	0.504	0.502	78.3	78.0	25	18.0-144			0.440	27
1,2-Dichlorobenzene	0.0250	ND	0.592	0.572	92.4	89.1	25	10.0-153			3.48	34
1,3-Dichlorobenzene	0.0250	ND	0.587	0.570	94.0	91.3	25	10.0-150			2.91	35
1,4-Dichlorobenzene	0.0250	ND	0.609	0.584	95.3	91.2	25	10.0-148			4.22	34
trans-1,4-Dichloro-2-butene	0.0250	0.348	0.615	0.722	42.7	59.8	25	10.0-160			15.9	40
Dichlorodifluoromethane	0.0250	ND	0.497	0.474	79.5	75.8	25	10.0-160			4.72	30
1,1-Dichloroethane	0.0250	ND	0.533	0.500	85.3	80.0	25	19.0-148			6.43	28
1,2-Dichloroethane	0.0250	ND	0.494	0.470	79.0	75.2	25	17.0-147			4.92	27
1,1-Dichloroethene	0.0250	ND	0.500	0.479	80.0	76.6	25	10.0-150			4.26	31
cis-1,2-Dichloroethene	0.0250	ND	0.537	0.502	85.9	80.4	25	16.0-145			6.60	28
trans-1,2-Dichloroethene	0.0250	ND	0.531	0.508	85.0	81.2	25	11.0-142			4.56	29
1,2-Dichloropropane	0.0250	ND	0.524	0.524	83.8	83.8	25	17.0-148			0.0200	28
1,1-Dichloropropene	0.0250	ND	0.496	0.477	79.3	76.3	25	10.0-150			3.97	30
1,3-Dichloropropane	0.0250	ND	0.541	0.506	86.6	81.0	25	16.0-148			6.66	27
cis-1,3-Dichloropropene	0.0250	ND	0.544	0.506	87.0	81.0	25	13.0-150			7.16	28
trans-1,3-Dichloropropene	0.0250	ND	0.527	0.490	84.3	78.4	25	10.0-152			7.20	29
2,2-Dichloropropane	0.0250	ND	0.362	0.327	57.9	52.3	25	16.0-143			10.1	30
Di-isopropyl ether	0.0250	ND	0.489	0.458	78.2	73.3	25	16.0-149			6.48	28

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L930246-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L930246-01 08/19/17 05:48 • (MS) R3242760-4 08/19/17 07:46 • (MSD) R3242760-5 08/19/17 08:06

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	ND	0.558	0.513	89.3	82.1	25	10.0-147			8.47	31
Hexachloro-1,3-butadiene	0.0250	ND	0.482	0.488	77.1	78.1	25	10.0-154			1.29	40
2-Hexanone	0.125	ND	2.15	2.16	68.7	69.1	25	12.0-158			0.540	30
n-Hexane	0.0250	ND	0.440	0.448	67.8	69.0	25	10.0-140			1.74	34
Iodomethane	0.125	ND	2.67	2.52	85.5	80.5	25	10.0-157			6.06	34
Isopropylbenzene	0.0250	ND	0.604	0.584	94.2	91.1	25	10.0-147			3.33	33
p-Isopropyltoluene	0.0250	0.0262	0.597	0.594	91.4	90.9	25	10.0-156			0.500	37
2-Butanone (MEK)	0.125	ND	2.16	2.25	62.2	65.3	25	10.0-160			4.33	33
Methylene Chloride	0.0250	ND	0.504	0.451	80.6	72.1	25	16.0-139			11.0	29
4-Methyl-2-pentanone (MIBK)	0.125	0.847	2.00	1.87	37.0	32.7	25	12.0-160			6.90	32
Methyl tert-butyl ether	0.0250	0.0870	0.430	0.405	54.9	50.9	25	21.0-145			5.97	29
Naphthalene	0.0250	ND	0.573	0.573	86.9	86.8	25	10.0-153			0.0600	36
n-Propylbenzene	0.0250	ND	0.579	0.567	91.4	89.5	25	10.0-151			2.06	34
Styrene	0.0250	ND	0.626	0.624	100	99.8	25	10.0-155			0.390	34
1,1,1,2-Tetrachloroethane	0.0250	ND	0.513	0.467	82.1	74.7	25	10.0-147			9.52	30
1,1,2,2-Tetrachloroethane	0.0250	0.329	0.719	0.752	62.4	67.7	25	10.0-155			4.48	31
Tetrachloroethene	0.0250	ND	0.589	0.561	94.2	89.7	25	10.0-144			4.89	32
Toluene	0.0250	ND	0.526	0.499	84.2	79.9	25	10.0-144			5.25	28
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.481	0.462	76.9	74.0	25	10.0-153			3.84	33
1,2,3-Trichlorobenzene	0.0250	ND	0.573	0.551	91.7	88.1	25	10.0-153			3.96	40
1,2,4-Trichlorobenzene	0.0250	ND	0.550	0.536	88.0	85.8	25	10.0-156			2.56	40
1,1,1-Trichloroethane	0.0250	ND	0.469	0.441	75.1	70.6	25	18.0-145			6.11	29
1,1,2-Trichloroethane	0.0250	0.261	0.690	0.683	68.7	67.6	25	12.0-151			1.03	28
Trichloroethene	0.0250	ND	0.545	0.539	87.3	86.2	25	11.0-148			1.23	29
Trichlorofluoromethane	0.0250	ND	0.406	0.251	65.0	40.1	25	10.0-157		J3	47.4	34
1,2,3-Trichloropropane	0.0250	0.119	0.550	0.553	69.0	69.5	25	10.0-154			0.610	32
1,2,3-Trimethylbenzene	0.0250	0.201	0.737	0.733	85.7	85.0	25	10.0-150			0.570	33
1,2,4-Trimethylbenzene	0.0250	0.181	0.724	0.726	87.0	87.2	25	10.0-151			0.250	34
1,3,5-Trimethylbenzene	0.0250	ND	0.583	0.566	93.3	90.5	25	10.0-150			2.98	33
Vinyl acetate	0.125	ND	1.98	1.64	63.3	52.4	25	10.0-160			18.7	40
Vinyl chloride	0.0250	ND	0.465	0.444	74.3	71.0	25	10.0-150			4.62	29
Xylenes, Total	0.0750	ND	1.69	1.56	90.1	83.3	25	10.0-150			7.87	31
(S) Toluene-d8					106	104		80.0-120				
(S) Dibromofluoromethane					99.0	95.0		74.0-131				
(S) 4-Bromofluorobenzene					119	122		64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3243686-4 08/23/17 01:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3243686-4 08/23/17 01:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	0.00316	U	0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	97.2			74.0-131
(S) 4-Bromofluorobenzene	95.5			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243686-1 08/22/17 22:27 • (LCSD) R3243686-2 08/23/17 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	0.103	0.113	82.6	90.0	11.0-160			8.64	23
Acrylonitrile	0.125	0.122	0.114	97.2	91.4	61.0-143			6.22	20
Benzene	0.0250	0.0243	0.0236	97.2	94.4	71.0-124			2.88	20
Bromobenzene	0.0250	0.0234	0.0230	93.7	91.8	78.0-120			1.99	20
Bromodichloromethane	0.0250	0.0236	0.0230	94.5	92.0	75.0-120			2.72	20
Bromochloromethane	0.0250	0.0250	0.0236	99.9	94.4	80.0-121			5.59	20
Bromoform	0.0250	0.0234	0.0224	93.6	89.4	65.0-133			4.56	20
Bromomethane	0.0250	0.0267	0.0269	107	108	26.0-160			0.990	20
n-Butylbenzene	0.0250	0.0219	0.0247	87.7	98.9	73.0-126			12.0	20
sec-Butylbenzene	0.0250	0.0230	0.0233	91.9	93.3	75.0-121			1.43	20
tert-Butylbenzene	0.0250	0.0234	0.0231	93.7	92.3	74.0-122			1.48	20
Carbon disulfide	0.0250	0.0242	0.0242	96.9	96.8	53.0-130			0.0500	20
Carbon tetrachloride	0.0250	0.0226	0.0231	90.5	92.3	66.0-123			1.99	20
Chlorobenzene	0.0250	0.0245	0.0239	98.2	95.7	79.0-121			2.56	20
Chlorodibromomethane	0.0250	0.0235	0.0230	93.8	92.0	74.0-128			2.00	20
Chloroethane	0.0250	0.0267	0.0268	107	107	51.0-147			0.280	20
Chloroform	0.0250	0.0241	0.0236	96.6	94.3	73.0-123			2.39	20
Chloromethane	0.0250	0.0238	0.0236	95.2	94.4	51.0-138			0.810	20
2-Chlorotoluene	0.0250	0.0234	0.0235	93.6	94.0	72.0-124			0.470	20
4-Chlorotoluene	0.0250	0.0222	0.0230	88.7	91.8	78.0-120			3.50	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0250	0.0250	100	100	65.0-126			0.0600	20
1,2-Dibromoethane	0.0250	0.0256	0.0233	102	93.2	78.0-122			9.27	20
Dibromomethane	0.0250	0.0251	0.0232	100	92.9	79.0-120			7.80	20
1,2-Dichlorobenzene	0.0250	0.0243	0.0243	97.2	97.3	80.0-120			0.120	20
1,3-Dichlorobenzene	0.0250	0.0235	0.0250	94.0	100	72.0-123			6.22	20
1,4-Dichlorobenzene	0.0250	0.0226	0.0237	90.4	94.8	77.0-120			4.68	20
trans-1,4-Dichloro-2-butene	0.0250	0.0250	0.0264	100	106	68.0-126			5.31	20
Dichlorodifluoromethane	0.0250	0.0233	0.0229	93.0	91.7	49.0-155			1.47	20
1,1-Dichloroethane	0.0250	0.0248	0.0243	99.1	97.2	70.0-128			1.95	20
1,2-Dichloroethane	0.0250	0.0259	0.0244	103	97.6	69.0-128			5.88	20
1,1-Dichloroethene	0.0250	0.0234	0.0237	93.8	94.6	63.0-131			0.950	20
cis-1,2-Dichloroethene	0.0250	0.0230	0.0218	92.2	87.1	74.0-123			5.64	20
trans-1,2-Dichloroethene	0.0250	0.0222	0.0224	88.8	89.6	72.0-122			0.830	20
1,2-Dichloropropane	0.0250	0.0255	0.0245	102	98.2	75.0-126			3.75	20
1,1-Dichloropropene	0.0250	0.0233	0.0239	93.4	95.7	72.0-130			2.40	20
1,3-Dichloropropane	0.0250	0.0265	0.0251	106	100	80.0-121			5.35	20
cis-1,3-Dichloropropene	0.0250	0.0244	0.0238	97.6	95.2	80.0-125			2.42	20
trans-1,3-Dichloropropene	0.0250	0.0265	0.0257	106	103	75.0-129			3.28	20
2,2-Dichloropropane	0.0250	0.0227	0.0237	90.8	94.9	60.0-129			4.43	20
Di-isopropyl ether	0.0250	0.0243	0.0233	97.1	93.4	62.0-133			3.93	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243686-1 08/22/17 22:27 • (LCSD) R3243686-2 08/23/17 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0234	0.0233	93.5	93.2	77.0-120			0.220	20
Hexachloro-1,3-butadiene	0.0250	0.0225	0.0245	90.2	98.2	68.0-128			8.53	20
2-Hexanone	0.125	0.128	0.130	103	104	61.0-143			1.71	20
n-Hexane	0.0250	0.0217	0.0213	86.9	85.2	57.0-125			1.99	20
Iodomethane	0.125	0.129	0.131	103	105	67.0-132			1.93	20
Isopropylbenzene	0.0250	0.0227	0.0227	90.8	90.7	75.0-120			0.160	20
p-Isopropyltoluene	0.0250	0.0224	0.0236	89.5	94.3	74.0-125			5.16	20
2-Butanone (MEK)	0.125	0.127	0.129	102	103	37.0-159			1.27	20
Methylene Chloride	0.0250	0.0230	0.0222	91.9	89.0	67.0-123			3.27	20
4-Methyl-2-pentanone (MIBK)	0.125	0.131	0.124	105	98.9	60.0-144			5.92	20
Methyl tert-butyl ether	0.0250	0.0246	0.0233	98.5	93.1	66.0-125			5.67	20
Naphthalene	0.0250	0.0237	0.0224	94.9	89.6	64.0-125			5.79	20
n-Propylbenzene	0.0250	0.0224	0.0233	89.6	93.4	78.0-120			4.09	20
Styrene	0.0250	0.0227	0.0220	90.8	87.9	78.0-124			3.25	20
1,1,1,2-Tetrachloroethane	0.0250	0.0233	0.0230	93.0	92.2	74.0-124			0.910	20
1,1,2,2-Tetrachloroethane	0.0250	0.0239	0.0230	95.6	91.9	73.0-120			4.01	20
Tetrachloroethene	0.0250	0.0243	0.0241	97.3	96.2	70.0-127			1.09	20
Toluene	0.0250	0.0231	0.0224	92.2	89.6	77.0-120			2.85	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0249	0.0254	99.4	101	64.0-135			2.03	20
1,2,3-Trichlorobenzene	0.0250	0.0246	0.0253	98.4	101	68.0-126			2.82	20
1,2,4-Trichlorobenzene	0.0250	0.0234	0.0261	93.6	105	70.0-127			11.1	20
1,1,1-Trichloroethane	0.0250	0.0222	0.0224	89.0	89.7	69.0-125			0.850	20
1,1,2-Trichloroethane	0.0250	0.0243	0.0230	97.0	92.0	78.0-120			5.32	20
Trichloroethene	0.0250	0.0240	0.0238	95.9	95.1	79.0-120			0.900	20
Trichlorofluoromethane	0.0250	0.0286	0.0299	114	120	59.0-136			4.56	20
1,2,3-Trichloropropane	0.0250	0.0243	0.0218	97.1	87.2	73.0-124			10.8	20
1,2,3-Trimethylbenzene	0.0250	0.0229	0.0228	91.7	91.1	76.0-120			0.660	20
1,2,4-Trimethylbenzene	0.0250	0.0210	0.0216	84.2	86.3	75.0-120			2.54	20
1,3,5-Trimethylbenzene	0.0250	0.0222	0.0227	88.8	90.7	75.0-120			2.14	20
Vinyl acetate	0.125	0.131	0.135	105	108	58.0-156			3.01	20
Vinyl chloride	0.0250	0.0278	0.0284	111	114	63.0-134			2.11	20
Xylenes, Total	0.0750	0.0675	0.0678	90.0	90.4	77.0-120			0.440	20
(S) Toluene-d8				102	101	80.0-120				
(S) Dibromofluoromethane				97.7	97.7	74.0-131				
(S) 4-Bromofluorobenzene				93.0	91.6	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3243084-3 08/17/17 21:59

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3243084-3 08/17/17 21:59

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	103			76.0-123
(S) 4-Bromofluorobenzene	105			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243084-1 08/17/17 21:01 • (LCSD) R3243084-2 08/17/17 21:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	199	132	159	105	10.0-160		J3	40.9	23
Acrylonitrile	125	140	115	112	91.8	60.0-142			20.0	20
Benzene	25.0	26.0	25.7	104	103	69.0-123			1.42	20
Bromobenzene	25.0	24.6	24.8	98.6	99.2	79.0-120			0.610	20
Bromodichloromethane	25.0	25.7	25.3	103	101	76.0-120			1.78	20
Bromochloromethane	25.0	26.0	25.1	104	100	76.0-122			3.43	20
Bromoform	25.0	24.3	25.1	97.4	100	67.0-132			3.18	20
Bromomethane	25.0	26.2	24.6	105	98.5	18.0-160			6.17	20
n-Butylbenzene	25.0	25.7	25.7	103	103	72.0-126			0.0800	20
sec-Butylbenzene	25.0	25.9	25.7	104	103	74.0-121			0.970	20
tert-Butylbenzene	25.0	25.8	25.6	103	102	75.0-122			0.980	20
Carbon disulfide	25.0	28.3	27.8	113	111	55.0-127			1.51	20
Carbon tetrachloride	25.0	25.3	24.9	101	99.5	63.0-122			1.80	20
Chlorobenzene	25.0	25.0	25.1	100	100	79.0-121			0.210	20
Chlorodibromomethane	25.0	23.9	24.2	95.4	96.9	75.0-125			1.60	20
Chloroethane	25.0	27.7	26.1	111	105	47.0-152			5.65	20
Chloroform	25.0	26.2	25.8	105	103	72.0-121			1.88	20
Chloromethane	25.0	29.1	28.4	117	114	48.0-139			2.57	20
2-Chlorotoluene	25.0	25.4	25.4	101	101	74.0-122			0.0900	20
4-Chlorotoluene	25.0	25.6	25.6	102	102	79.0-120			0.0600	20
1,2-Dibromo-3-Chloropropane	25.0	24.1	22.3	96.3	89.2	64.0-127			7.64	20
1,2-Dibromoethane	25.0	23.9	24.3	95.6	97.3	77.0-123			1.84	20
Dibromomethane	25.0	26.4	25.5	106	102	78.0-120			3.58	20
1,2-Dichlorobenzene	25.0	24.5	24.4	98.1	97.7	80.0-120			0.390	20
1,3-Dichlorobenzene	25.0	25.3	25.1	101	101	72.0-123			0.480	20
1,4-Dichlorobenzene	25.0	24.8	24.7	99.3	98.9	77.0-120			0.440	20
Dichlorodifluoromethane	25.0	35.6	34.3	142	137	49.0-155			3.79	20
1,1-Dichloroethane	25.0	27.4	26.5	110	106	70.0-126			3.40	20
1,2-Dichloroethane	25.0	26.1	25.8	104	103	67.0-126			1.06	20
1,1-Dichloroethene	25.0	28.0	27.9	112	111	64.0-129			0.620	20
cis-1,2-Dichloroethene	25.0	26.5	26.0	106	104	73.0-120			2.00	20
trans-1,2-Dichloroethene	25.0	26.8	26.1	107	104	71.0-121			2.79	20
1,2-Dichloropropane	25.0	27.1	26.8	108	107	75.0-125			0.970	20
1,1-Dichloropropene	25.0	27.1	26.7	109	107	71.0-129			1.41	20
1,3-Dichloropropane	25.0	24.7	24.9	98.9	99.5	80.0-121			0.630	20
cis-1,3-Dichloropropene	25.0	24.9	24.9	99.5	99.7	79.0-123			0.230	20
trans-1,3-Dichloropropene	25.0	23.8	24.5	95.2	98.1	74.0-127			2.98	20
trans-1,4-Dichloro-2-butene	25.0	20.7	22.1	82.8	88.5	55.0-134			6.68	20
2,2-Dichloropropane	25.0	26.2	24.5	105	98.0	60.0-125			6.62	20
Di-isopropyl ether	25.0	26.9	25.8	108	103	59.0-133			4.22	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243084-1 08/17/17 21:01 • (LCSD) R3243084-2 08/17/17 21:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	25.0	25.2	25.1	101	100	77.0-120			0.390	20
Hexachloro-1,3-butadiene	25.0	22.9	23.7	91.4	94.7	64.0-131			3.51	20
2-Hexanone	125	132	130	106	104	58.0-147			1.26	20
n-Hexane	25.0	27.0	25.9	108	104	56.0-124			4.17	20
Iodomethane	125	135	132	108	105	57.0-140			2.75	20
Isopropylbenzene	25.0	26.0	26.0	104	104	75.0-120			0.100	20
p-Isopropyltoluene	25.0	25.1	25.0	100	99.9	74.0-126			0.390	20
2-Butanone (MEK)	125	155	131	124	105	37.0-158			16.6	20
Methylene Chloride	25.0	25.8	24.4	103	97.5	66.0-121			5.77	20
4-Methyl-2-pentanone (MIBK)	125	130	123	104	98.5	59.0-143			5.06	20
Methyl tert-butyl ether	25.0	26.3	24.9	105	99.7	64.0-123			5.46	20
Naphthalene	25.0	22.8	22.2	91.3	88.7	62.0-128			2.89	20
n-Propylbenzene	25.0	26.0	26.1	104	104	79.0-120			0.440	20
Styrene	25.0	25.7	26.3	103	105	78.0-124			2.07	20
1,1,1,2-Tetrachloroethane	25.0	24.7	24.7	98.9	98.7	75.0-122			0.190	20
1,1,2,2-Tetrachloroethane	25.0	24.7	24.2	98.7	96.9	71.0-122			1.86	20
1,1,2-Trichlorotrifluoroethane	25.0	29.4	28.3	117	113	61.0-136			3.66	20
Tetrachloroethene	25.0	24.8	24.7	99.1	99.0	70.0-127			0.110	20
Toluene	25.0	24.2	24.3	97.0	97.2	77.0-120			0.260	20
1,2,3-Trichlorobenzene	25.0	23.9	23.6	95.8	94.6	61.0-133			1.24	20
1,2,4-Trichlorobenzene	25.0	23.5	23.8	93.9	95.2	69.0-129			1.38	20
1,1,1-Trichloroethane	25.0	26.6	26.0	106	104	68.0-122			2.49	20
1,1,2-Trichloroethane	25.0	24.1	24.4	96.3	97.5	78.0-120			1.27	20
Trichloroethene	25.0	26.2	25.9	105	104	78.0-120			1.11	20
Trichlorofluoromethane	25.0	28.4	26.9	114	108	56.0-137			5.48	20
1,2,3-Trichloropropane	25.0	24.9	24.3	99.4	97.1	72.0-124			2.36	20
1,2,4-Trimethylbenzene	25.0	24.7	24.5	98.9	98.0	75.0-120			0.880	20
1,2,3-Trimethylbenzene	25.0	24.5	24.0	98.2	95.9	75.0-120			2.32	20
1,3,5-Trimethylbenzene	25.0	25.2	25.2	101	101	75.0-120			0.0400	20
Vinyl acetate	125	123	118	98.5	94.5	46.0-160			4.13	20
Vinyl chloride	25.0	29.7	28.9	119	116	64.0-133			2.56	20
Xylenes, Total	75.0	75.8	75.7	101	101	77.0-120			0.130	20
(S) Toluene-d8				103	105	80.0-120				
(S) Dibromofluoromethane				104	103	76.0-123				
(S) 4-Bromofluorobenzene				102	104	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL (dry)	Reported Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

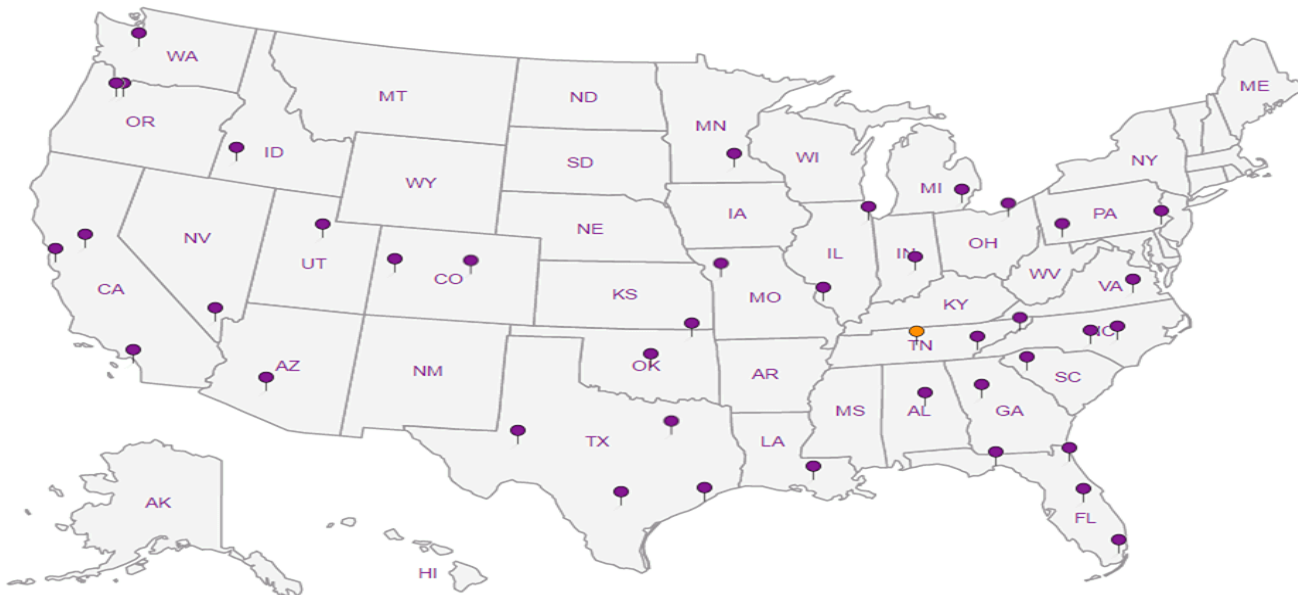
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc.- WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Billing Information:
 Attn: Accounts Payable
 1215 Fourth Ave., Ste. 1350
 Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhaldean@pesenv.com

Project Description: **American Linen Project**

City/State Collected: **SEATTLE, WA**

Chain of Custody Page 1 of 1



LAB SCIENCES
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12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5850



Client Project # **1413.001.02.602**

Lab Project # **PESENVSWA-ALP**

Site/Facility ID # **1413.001.02.602**

P.O. # **1413.001.02.602**

Quote # **TAT**

Rush? (Lab MUST Be Notified)
 Same Day _____ Five Day _____
 Next Day _____ 5 Day (Rad Only) _____
 Two Day _____ 10 Day (Rad Only) _____
 Three Day _____ **STANDARD**

Date Results Needed **TAT**

Immerdiately Packed on Ice **N** **Y** **X**

L# **1929901**

C069

Acctnum: **PESENVSWA**

Template: **T126581**

Prelogin: **P613267**

TSR: **110 - Brian Ford**

PR: **8/7/17 mba**

Shipped Via: **FedEX 2nd Day**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Wt. of Cntrs	NWTPHGX 2ozClr-NoPres	NWTPHGX 40mlAmb HCl	TS 4ozClr-NoPres	V8260C 40ml/NaHSO4/Syr/MeOH	V8260C 40mlAmb-HCl	Remarks	Sample # (lab only)
B-206-15	Grab	SS	15	8-14-17	1025	5	X	X	X	X		Gx/VoCs	-01
B-206-30	Grab	SS	30	8-14-17	1055	5	X	X	X	X			-02
B-206-40	Grab	SS	40	8-14-17	1120	5	X	X	X	X			-03
B-206-49	Grab	SS	49	8-14-17	1200	5	X	X	X	X			-04
B-206-52	Grab	SS	52	8-14-17	1415	5	X	X	X	X			-05
B-206-56	Grab	SS	56	8-14-17	1405	5	X	X	X	X			-06
B-206-70	Grab	SS	70	8-14-17	1640	5	X	X	X	X	X		-07
B-206-80	Grab	SS	80	8-14-17	1630	5	X	X	X	X	X		-08
B-206-59	Grab	SS	59	8-14-17	1350	5	X	X	X	X			-09
TRIP BLANK-081417							X	X	X	X		Gx/VoCs	-10

Matrix: SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other _____

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via: UPS FedEx Courier _____

Tracking # _____

Sample Receipt Checklist:

COC Seal Present/Intact: NP N

COC Signed/Accurate: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

If Applicable:

VQA Zero Headspace: Y N

Preservation Correct/Checked: Y N

Relinquished by: (Signature) *[Signature]* Date: **8-15-17** Time: **1600**

Received by: (Signature) _____ Trip Blank Received: No Yes (HCl/MeOH/TBR)

Temp: **1.7** °C Bottles Received: **45**

If preservation required by Login: Date/Time

Relinquished by: (Signature) _____ Date: _____ Time: _____

Received for Lab by: (Signature) *[Signature]* Date: **8-16-17** Time: **845**

Hold: _____ Condition: **NCF / OK**

MEMORANDUM

TO: Project File **DATE:** September 12, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.604
TASK: August 14, 2017 – Soil and Groundwater Samples
LAB: ESC Lab ID L929901

Nine (9) soil samples and a trip blank sample were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington, on August 14, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- Total Solids by Standard Methods 2540 G-2011.

The results are reported in ESC Sample Delivery Group (SDG) L929901. The quarterly monitoring round occurred between August and September of 2017. Associated sample data are reported in X# ESC SDGs (SDGs L929881, L929901, L930317, L930670, L930884, L931390, L931655, L932059, L932260, L932611, L932876, L933267, L933455, L934130, L934673, L934916, and). The quality assurance review of the sample data associated with SDG L929901 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected on August 14, 2017 in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped by courier to ESC. The laboratory reported that the cooler and samples were received at 1.7 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for soils and preserved water from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

All samples were analyzed within the WA State recommended holding time of fourteen days for soils and preserved water from the date of sample collection. All holding time criteria were met.

General Chemistry (Total Solids):

Samples were analyzed within the USEPA recommended holding time of 7 days for total solids. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C for soils:* Continuing calibration verification (CCV) issues were noted by ESC for hexachloro-1,3-butadiene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene associated with analytical batch WG1010895 (analyzed on August 22, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated sample results with laboratory qualified J0 results are estimated and qualified (UJ or J).**
- *USEPA Method 8260C for soils:* Continuing calibration verification (CCV) issues were noted by ESC for bromomethane, 2,2-dichloropropane, 1,1,2-trichlorotrifluoroethane, and tetrachloroethene associated with analytical batch WG1011219 (analyzed on August 19, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated sample results with laboratory qualified J0 results are estimated and qualified (UJ or J).**

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs) with the following exception:

- Analytical batch WG1012508: A low level of iodomethane was detected in the method blank analyzed on August 23, 2017. No action was necessary as iodomethane was not detected in associated samples.

NWTPH-Gx Method:

Laboratory method blanks were included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blanks at or above the RDL.

Total Solids by SM 2540 G 2011:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (% solids) were not detected at significant levels in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was collected and analyzed. The target analytes (VOCs and gasoline) were not detected in the method blanks at or above the RDL.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Total Solids by SM 2540 G 2011:

Laboratory duplicate sample analyses were performed on a non-client sample and on a client sample from a different SDG within the analytical batches. The primary/duplicate RPDs for total solids analyses are within the laboratory control limit of 5%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSDs, MS/MSDs, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, LCS/LCSDs, MS/MSDs and the method blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils and waters with the following discussion:

- LCS/LCSD (Batch WG1010895) RPD value for compound 1,2-Dibromo-3-Chloropropane is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are within control limits.
- LCS (Batch WG1011219) percent recovery for compound tetrachloroethene is slightly above laboratory criteria and qualified by the laboratory (J4). **Associated sample results with detections (B-206-56, B-206-70, B-206-80, and B-206-59) are estimated and qualified (J).**
- LCSD (Batch WG1010972) RPD value for compound acetone is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are within control limits.

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water and soils.

Total Solids by SM 2540 G 2011:

The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on non-client samples. MS/MSD % Rs and RPD were within the laboratory control criteria for soils with the following exceptions:

- MS/MSD (Batch WG1010895) spike recovery results for compound acetone were recovered above the control limit criteria. No action is taken since the spike was performed on a non-client sample and associated LCS/LCSD recoveries are acceptable. It should be noted that notes indicate sample was run at a dilution (25X) due to anticipated elevated concentrations.
- MS/MSD (Batch WG1011219) RPD result for compound trichlorofluoromethane is above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as MS/MSD percent recovery results are recovered wide but are within control limits.

NWTPH-Gx Method:

MS/MSD analyses were performed on a non-client sample and on sample B-206-70. MS/MSD % Rs and RPDs were within the laboratory control criteria for soils.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following exception:

- ESC notes indicate that Sample B-206-52 was not reanalyzed at a lower dilution (for cis-1,2-DCE) as there was no low level sodium bisulfite vials remaining. No action is taken other than to note this.

Compound Identification and Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

PES requested and ESC confirmed that there does not appear to be a gasoline chromatographic pattern in selected samples, and in “all likelihood the gasoline values are in the fact the high levels of chlorinated VOCs.” **Gasoline range organic results for samples B-206-30, B-206-49, and B-206-56, are qualified as estimated (J) based on chromatographic patterns in the samples and elevated chlorinated VOCs (CVOCs).**

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.9		1	08/21/2017 09:20	WG1011913

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.243		0.0390	0.115	1	08/20/2017 14:59	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	91.1			77.0-120		08/20/2017 14:59	WG1011760

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.288	1.44	25	08/23/2017 01:30	WG1010895
Acrylonitrile	U		0.0516	0.288	25	08/23/2017 01:30	WG1010895
Benzene	U		0.00777	0.0288	25	08/23/2017 01:30	WG1010895
Bromobenzene	U		0.00817	0.0288	25	08/23/2017 01:30	WG1010895
Bromodichloromethane	U		0.00731	0.0288	25	08/23/2017 01:30	WG1010895
Bromochloromethane	U		0.0112	0.144	25	08/23/2017 01:30	WG1010895
Bromoform	U		0.0122	0.0288	25	08/23/2017 01:30	WG1010895
Bromomethane	U		0.0386	0.144	25	08/23/2017 01:30	WG1010895
n-Butylbenzene	U		0.00742	0.0288	25	08/23/2017 01:30	WG1010895
sec-Butylbenzene	U		0.00578	0.0288	25	08/23/2017 01:30	WG1010895
tert-Butylbenzene	U		0.00593	0.0288	25	08/23/2017 01:30	WG1010895
Carbon disulfide	U		0.00635	0.0288	25	08/23/2017 01:30	WG1010895
Carbon tetrachloride	U		0.00944	0.0288	25	08/23/2017 01:30	WG1010895
Chlorobenzene	U		0.00610	0.0288	25	08/23/2017 01:30	WG1010895
Chlorodibromomethane	U		0.0107	0.0288	25	08/23/2017 01:30	WG1010895
Chloroethane	U		0.0272	0.144	25	08/23/2017 01:30	WG1010895
Chloroform	U		0.00658	0.144	25	08/23/2017 01:30	WG1010895
Chloromethane	U		0.0108	0.0719	25	08/23/2017 01:30	WG1010895
2-Chlorotoluene	U		0.00865	0.0288	25	08/23/2017 01:30	WG1010895
4-Chlorotoluene	U		0.00690	0.0288	25	08/23/2017 01:30	WG1010895
1,2-Dibromo-3-Chloropropane	U	<u>J3</u>	0.0302	0.144	25	08/23/2017 01:30	WG1010895
1,2-Dibromoethane	U		0.00987	0.0288	25	08/23/2017 01:30	WG1010895
Dibromomethane	U		0.0110	0.0288	25	08/23/2017 01:30	WG1010895
1,2-Dichlorobenzene	U		0.00877	0.0288	25	08/23/2017 01:30	WG1010895
1,3-Dichlorobenzene	U		0.00688	0.0288	25	08/23/2017 01:30	WG1010895
1,4-Dichlorobenzene	U		0.00650	0.0288	25	08/23/2017 01:30	WG1010895
Dichlorodifluoromethane	U		0.0205	0.144	25	08/23/2017 01:30	WG1010895
1,1-Dichloroethane	U		0.00573	0.0288	25	08/23/2017 01:30	WG1010895
1,2-Dichloroethane	U		0.00762	0.0288	25	08/23/2017 01:30	WG1010895
1,1-Dichloroethene	U		0.00872	0.0288	25	08/23/2017 01:30	WG1010895
cis-1,2-Dichloroethene	0.306		0.00677	0.0288	25	08/23/2017 01:30	WG1010895
trans-1,2-Dichloroethene	0.00825 J	<u>J</u>	0.00760	0.0288	25	08/23/2017 01:30	WG1010895
1,2-Dichloropropane	U		0.0103	0.0288	25	08/23/2017 01:30	WG1010895
1,1-Dichloropropene	U		0.00911	0.0288	25	08/23/2017 01:30	WG1010895
1,3-Dichloropropane	U		0.00596	0.0288	25	08/23/2017 01:30	WG1010895
cis-1,3-Dichloropropene	U		0.00754	0.0288	25	08/23/2017 01:30	WG1010895
trans-1,3-Dichloropropene	U		0.00769	0.0288	25	08/23/2017 01:30	WG1010895
trans-1,4-Dichloro-2-butene	U		0.0223	0.0719	25	08/23/2017 01:30	WG1010895
2,2-Dichloropropane	U		0.00803	0.0288	25	08/23/2017 01:30	WG1010895
Di-isopropyl ether	U		0.00714	0.0288	25	08/23/2017 01:30	WG1010895
Ethylbenzene	U		0.00854	0.0288	25	08/23/2017 01:30	WG1010895
Hexachloro-1,3-butadiene	U		0.00984	0.0288	25	08/23/2017 01:30	WG1010895
2-Hexanone	U		0.0394	0.288	25	08/23/2017 01:30	WG1010895
n-Hexane	0.0395 J	<u>J</u>	0.00834	0.288	25	08/23/2017 01:30	WG1010895



Collected date/time: 08/14/17 10:25

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.0727	0.288	25	08/23/2017 01:30	WG1010895
Isopropylbenzene	U		0.00700	0.0288	25	08/23/2017 01:30	WG1010895
p-Isopropyltoluene	U		0.00587	0.0288	25	08/23/2017 01:30	WG1010895
2-Butanone (MEK)	U		0.135	0.288	25	08/23/2017 01:30	WG1010895
Methylene Chloride	U		0.0288	0.144	25	08/23/2017 01:30	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.0541	0.288	25	08/23/2017 01:30	WG1010895
Methyl tert-butyl ether	0.145		0.00610	0.0288	25	08/23/2017 01:30	WG1010895
Naphthalene	U		0.0288	0.144	25	08/23/2017 01:30	WG1010895
n-Propylbenzene	U		0.00593	0.0288	25	08/23/2017 01:30	WG1010895
Styrene	U		0.00673	0.0288	25	08/23/2017 01:30	WG1010895
1,1,1-Tetrachloroethane	U		0.00760	0.0288	25	08/23/2017 01:30	WG1010895
1,1,2,2-Tetrachloroethane	U		0.0105	0.0288	25	08/23/2017 01:30	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.0105	0.0288	25	08/23/2017 01:30	WG1010895
Tetrachloroethene	0.0715		0.00794	0.0288	25	08/23/2017 01:30	WG1010895
Toluene	U		0.0124	0.144	25	08/23/2017 01:30	WG1010895
1,2,3-Trichlorobenzene	U		0.00880	0.0288	25	08/23/2017 01:30	WG1010895
1,2,4-Trichlorobenzene	U		0.0112	0.0288	25	08/23/2017 01:30	WG1010895
1,1,1-Trichloroethane	U		0.00823	0.0288	25	08/23/2017 01:30	WG1010895
1,1,2-Trichloroethane	U		0.00796	0.0288	25	08/23/2017 01:30	WG1010895
Trichloroethene	0.00831	J U	0.00803	0.0288	25	08/23/2017 01:30	WG1010895
Trichlorofluoromethane	U		0.0110	0.144	25	08/23/2017 01:30	WG1010895
1,2,3-Trichloropropane	U		0.0213	0.0719	25	08/23/2017 01:30	WG1010895
1,2,4-Trimethylbenzene	0.0151	J U	0.00608	0.0288	25	08/23/2017 01:30	WG1010895
1,2,3-Trimethylbenzene	U		0.00826	0.0288	25	08/23/2017 01:30	WG1010895
1,3,5-Trimethylbenzene	U		0.00765	0.0288	25	08/23/2017 01:30	WG1010895
Vinyl acetate	U		0.0688	0.288	25	08/23/2017 01:30	WG1010895
Vinyl chloride	U		0.00838	0.0288	25	08/23/2017 01:30	WG1010895
Xylenes, Total	U		0.0200	0.0863	25	08/23/2017 01:30	WG1010895
(S) Toluene-d8	102			80.0-120		08/23/2017 01:30	WG1010895
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 01:30	WG1010895
(S) 4-Bromofluorobenzene	104			64.0-132		08/23/2017 01:30	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.2		1	08/21/2017 09:20	WG1011913

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1.32	J	0.0389	0.115	1	08/20/2017 15:21	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	92.1			77.0-120		08/20/2017 15:21	WG1011760

3 Ss

4 Cn

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0177	J	0.0115	0.0574	1	08/22/2017 09:23	WG1010895
Acrylonitrile	U		0.00205	0.0115	1	08/22/2017 09:23	WG1010895
Benzene	U		0.000310	0.00115	1	08/22/2017 09:23	WG1010895
Bromobenzene	U		0.000326	0.00115	1	08/22/2017 09:23	WG1010895
Bromodichloromethane	U		0.000291	0.00115	1	08/22/2017 09:23	WG1010895
Bromochloromethane	U		0.000447	0.00574	1	08/22/2017 09:23	WG1010895
Bromoform	U		0.000486	0.00115	1	08/22/2017 09:23	WG1010895
Bromomethane	U		0.00154	0.00574	1	08/22/2017 09:23	WG1010895
n-Butylbenzene	U		0.000296	0.00115	1	08/22/2017 09:23	WG1010895
sec-Butylbenzene	U		0.000231	0.00115	1	08/22/2017 09:23	WG1010895
tert-Butylbenzene	U		0.000236	0.00115	1	08/22/2017 09:23	WG1010895
Carbon disulfide	0.00174		0.000253	0.00115	1	08/22/2017 09:23	WG1010895
Carbon tetrachloride	U		0.000376	0.00115	1	08/22/2017 09:23	WG1010895
Chlorobenzene	U		0.000243	0.00115	1	08/22/2017 09:23	WG1010895
Chlorodibromomethane	U		0.000428	0.00115	1	08/22/2017 09:23	WG1010895
Chloroethane	U		0.00109	0.00574	1	08/22/2017 09:23	WG1010895
Chloroform	U		0.000263	0.00574	1	08/22/2017 09:23	WG1010895
Chloromethane	U		0.000430	0.00287	1	08/22/2017 09:23	WG1010895
2-Chlorotoluene	U		0.000345	0.00115	1	08/22/2017 09:23	WG1010895
4-Chlorotoluene	U		0.000275	0.00115	1	08/22/2017 09:23	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00120	0.00574	1	08/22/2017 09:23	WG1010895
1,2-Dibromoethane	U		0.000393	0.00115	1	08/22/2017 09:23	WG1010895
Dibromomethane	U		0.000438	0.00115	1	08/22/2017 09:23	WG1010895
1,2-Dichlorobenzene	U		0.000350	0.00115	1	08/22/2017 09:23	WG1010895
1,3-Dichlorobenzene	U		0.000274	0.00115	1	08/22/2017 09:23	WG1010895
1,4-Dichlorobenzene	U		0.000259	0.00115	1	08/22/2017 09:23	WG1010895
Dichlorodifluoromethane	U		0.000818	0.00574	1	08/22/2017 09:23	WG1010895
1,1-Dichloroethane	U		0.000228	0.00115	1	08/22/2017 09:23	WG1010895
1,2-Dichloroethane	U		0.000304	0.00115	1	08/22/2017 09:23	WG1010895
1,1-Dichloroethene	0.00192		0.000348	0.00115	1	08/22/2017 09:23	WG1010895
cis-1,2-Dichloroethene	12.6		0.135	0.574	500	08/23/2017 14:58	WG1010895
trans-1,2-Dichloroethene	0.00230		0.000303	0.00115	1	08/22/2017 09:23	WG1010895
1,2-Dichloropropane	U		0.000411	0.00115	1	08/22/2017 09:23	WG1010895
1,1-Dichloropropene	U		0.000364	0.00115	1	08/22/2017 09:23	WG1010895
1,3-Dichloropropane	U		0.000237	0.00115	1	08/22/2017 09:23	WG1010895
cis-1,3-Dichloropropene	U		0.000301	0.00115	1	08/22/2017 09:23	WG1010895
trans-1,3-Dichloropropene	U		0.000306	0.00115	1	08/22/2017 09:23	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000892	0.00287	1	08/22/2017 09:23	WG1010895
2,2-Dichloropropane	U		0.000320	0.00115	1	08/22/2017 09:23	WG1010895
Di-isopropyl ether	U		0.000284	0.00115	1	08/22/2017 09:23	WG1010895
Ethylbenzene	U		0.000341	0.00115	1	08/22/2017 09:23	WG1010895
Hexachloro-1,3-butadiene	U	UJ	0.000392	0.00115	1	08/22/2017 09:23	WG1010895
2-Hexanone	U		0.00157	0.0115	1	08/22/2017 09:23	WG1010895
n-Hexane	U		0.000333	0.0115	1	08/22/2017 09:23	WG1010895

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00290	0.0115	1	08/22/2017 09:23	WG1010895
Isopropylbenzene	U		0.000279	0.00115	1	08/22/2017 09:23	WG1010895
p-Isopropyltoluene	U		0.000234	0.00115	1	08/22/2017 09:23	WG1010895
2-Butanone (MEK)	U		0.00537	0.0115	1	08/22/2017 09:23	WG1010895
Methylene Chloride	U		0.00115	0.00574	1	08/22/2017 09:23	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00216	0.0115	1	08/22/2017 09:23	WG1010895
Methyl tert-butyl ether	U		0.000243	0.00115	1	08/22/2017 09:23	WG1010895
Naphthalene	0.0340		0.00115	0.00574	1	08/22/2017 09:23	WG1010895
n-Propylbenzene	U		0.000236	0.00115	1	08/22/2017 09:23	WG1010895
Styrene	U		0.000268	0.00115	1	08/22/2017 09:23	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000303	0.00115	1	08/22/2017 09:23	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000419	0.00115	1	08/22/2017 09:23	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000419	0.00115	1	08/22/2017 09:23	WG1010895
Tetrachloroethene	0.0522		0.000317	0.00115	1	08/22/2017 09:23	WG1010895
Toluene	U		0.000498	0.00574	1	08/22/2017 09:23	WG1010895
1,2,3-Trichlorobenzene	U	UJ	0.000351	0.00115	1	08/22/2017 09:23	WG1010895
1,2,4-Trichlorobenzene	U	UJ	0.000445	0.00115	1	08/22/2017 09:23	WG1010895
1,1,1-Trichloroethane	U		0.000328	0.00115	1	08/22/2017 09:23	WG1010895
1,1,2-Trichloroethane	U		0.000318	0.00115	1	08/22/2017 09:23	WG1010895
Trichloroethene	0.0289		0.000320	0.00115	1	08/22/2017 09:23	WG1010895
Trichlorofluoromethane	U		0.000438	0.00574	1	08/22/2017 09:23	WG1010895
1,2,3-Trichloropropane	U		0.000850	0.00287	1	08/22/2017 09:23	WG1010895
1,2,4-Trimethylbenzene	U		0.000242	0.00115	1	08/22/2017 09:23	WG1010895
1,2,3-Trimethylbenzene	U		0.000329	0.00115	1	08/22/2017 09:23	WG1010895
1,3,5-Trimethylbenzene	U		0.000305	0.00115	1	08/22/2017 09:23	WG1010895
Vinyl acetate	U		0.00274	0.0115	1	08/22/2017 09:23	WG1010895
Vinyl chloride	0.124		0.000334	0.00115	1	08/22/2017 09:23	WG1010895
Xylenes, Total	U		0.000801	0.00344	1	08/22/2017 09:23	WG1010895
(S) Toluene-d8	98.4			80.0-120		08/22/2017 09:23	WG1010895
(S) Toluene-d8	101			80.0-120		08/23/2017 14:58	WG1010895
(S) Dibromofluoromethane	112			74.0-131		08/22/2017 09:23	WG1010895
(S) Dibromofluoromethane	98.7			74.0-131		08/23/2017 14:58	WG1010895
(S) 4-Bromofluorobenzene	103			64.0-132		08/22/2017 09:23	WG1010895
(S) 4-Bromofluorobenzene	97.8			64.0-132		08/23/2017 14:58	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Collected date/time: 08/14/17 11:20

L929901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.6		1	08/21/2017 09:08	WG1011914

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0358	0.106	1	08/20/2017 15:43	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	92.6			77.0-120		08/20/2017 15:43	WG1011760

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0191	J	0.0106	0.0529	1	08/22/2017 09:44	WG1010895
Acrylonitrile	U		0.00189	0.0106	1	08/22/2017 09:44	WG1010895
Benzene	U		0.000285	0.00106	1	08/22/2017 09:44	WG1010895
Bromobenzene	U		0.000300	0.00106	1	08/22/2017 09:44	WG1010895
Bromodichloromethane	U		0.000268	0.00106	1	08/22/2017 09:44	WG1010895
Bromochloromethane	U		0.000412	0.00529	1	08/22/2017 09:44	WG1010895
Bromoform	U		0.000448	0.00106	1	08/22/2017 09:44	WG1010895
Bromomethane	U		0.00142	0.00529	1	08/22/2017 09:44	WG1010895
n-Butylbenzene	U		0.000273	0.00106	1	08/22/2017 09:44	WG1010895
sec-Butylbenzene	U		0.000212	0.00106	1	08/22/2017 09:44	WG1010895
tert-Butylbenzene	U		0.000218	0.00106	1	08/22/2017 09:44	WG1010895
Carbon disulfide	0.00114		0.000234	0.00106	1	08/22/2017 09:44	WG1010895
Carbon tetrachloride	U		0.000347	0.00106	1	08/22/2017 09:44	WG1010895
Chlorobenzene	U		0.000224	0.00106	1	08/22/2017 09:44	WG1010895
Chlorodibromomethane	U		0.000394	0.00106	1	08/22/2017 09:44	WG1010895
Chloroethane	U		0.00100	0.00529	1	08/22/2017 09:44	WG1010895
Chloroform	U		0.000242	0.00529	1	08/22/2017 09:44	WG1010895
Chloromethane	U		0.000396	0.00264	1	08/22/2017 09:44	WG1010895
2-Chlorotoluene	U		0.000318	0.00106	1	08/22/2017 09:44	WG1010895
4-Chlorotoluene	U		0.000254	0.00106	1	08/22/2017 09:44	WG1010895
1,2-Dibromo-3-Chloropropane	U	J3	0.00111	0.00529	1	08/22/2017 09:44	WG1010895
1,2-Dibromoethane	U		0.000363	0.00106	1	08/22/2017 09:44	WG1010895
Dibromomethane	U		0.000404	0.00106	1	08/22/2017 09:44	WG1010895
1,2-Dichlorobenzene	U		0.000322	0.00106	1	08/22/2017 09:44	WG1010895
1,3-Dichlorobenzene	U		0.000253	0.00106	1	08/22/2017 09:44	WG1010895
1,4-Dichlorobenzene	U		0.000239	0.00106	1	08/22/2017 09:44	WG1010895
Dichlorodifluoromethane	U		0.000754	0.00529	1	08/22/2017 09:44	WG1010895
1,1-Dichloroethane	U		0.000210	0.00106	1	08/22/2017 09:44	WG1010895
1,2-Dichloroethane	U		0.000280	0.00106	1	08/22/2017 09:44	WG1010895
1,1-Dichloroethene	U		0.000320	0.00106	1	08/22/2017 09:44	WG1010895
cis-1,2-Dichloroethene	0.00879	J	0.00627	0.0267	25.25	08/23/2017 14:38	WG1010895
trans-1,2-Dichloroethene	U		0.000279	0.00106	1	08/22/2017 09:44	WG1010895
1,2-Dichloropropane	U		0.000378	0.00106	1	08/22/2017 09:44	WG1010895
1,1-Dichloropropene	U		0.000335	0.00106	1	08/22/2017 09:44	WG1010895
1,3-Dichloropropane	U		0.000219	0.00106	1	08/22/2017 09:44	WG1010895
cis-1,3-Dichloropropene	U		0.000277	0.00106	1	08/22/2017 09:44	WG1010895
trans-1,3-Dichloropropene	U		0.000282	0.00106	1	08/22/2017 09:44	WG1010895
trans-1,4-Dichloro-2-butene	U		0.000822	0.00264	1	08/22/2017 09:44	WG1010895
2,2-Dichloropropane	U		0.000295	0.00106	1	08/22/2017 09:44	WG1010895
Di-isopropyl ether	U		0.000262	0.00106	1	08/22/2017 09:44	WG1010895
Ethylbenzene	U		0.000314	0.00106	1	08/22/2017 09:44	WG1010895
Hexachloro-1,3-butadiene	U	UJ	0.000362	0.00106	1	08/22/2017 09:44	WG1010895
2-Hexanone	U		0.00145	0.0106	1	08/22/2017 09:44	WG1010895
n-Hexane	0.00151	J	0.000307	0.0106	1	08/22/2017 09:44	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Collected date/time: 08/14/17 11:20

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00267	0.0106	1	08/22/2017 09:44	WG1010895
Isopropylbenzene	U		0.000257	0.00106	1	08/22/2017 09:44	WG1010895
p-Isopropyltoluene	U		0.000216	0.00106	1	08/22/2017 09:44	WG1010895
2-Butanone (MEK)	U		0.00495	0.0106	1	08/22/2017 09:44	WG1010895
Methylene Chloride	U		0.00106	0.00529	1	08/22/2017 09:44	WG1010895
4-Methyl-2-pentanone (MIBK)	U		0.00199	0.0106	1	08/22/2017 09:44	WG1010895
Methyl tert-butyl ether	U		0.000224	0.00106	1	08/22/2017 09:44	WG1010895
Naphthalene	0.00114 J	J	0.00106	0.00529	1	08/22/2017 09:44	WG1010895
n-Propylbenzene	U		0.000218	0.00106	1	08/22/2017 09:44	WG1010895
Styrene	U		0.000247	0.00106	1	08/22/2017 09:44	WG1010895
1,1,1,2-Tetrachloroethane	U		0.000279	0.00106	1	08/22/2017 09:44	WG1010895
1,1,2,2-Tetrachloroethane	U		0.000386	0.00106	1	08/22/2017 09:44	WG1010895
1,1,2-Trichlorotrifluoroethane	U		0.000386	0.00106	1	08/22/2017 09:44	WG1010895
Tetrachloroethene	0.000306 J	J	0.000292	0.00106	1	08/22/2017 09:44	WG1010895
Toluene	U		0.000459	0.00529	1	08/22/2017 09:44	WG1010895
1,2,3-Trichlorobenzene	U UJ	JO	0.000323	0.00106	1	08/22/2017 09:44	WG1010895
1,2,4-Trichlorobenzene	U UJ	JO	0.000410	0.00106	1	08/22/2017 09:44	WG1010895
1,1,1-Trichloroethane	U		0.000302	0.00106	1	08/22/2017 09:44	WG1010895
1,1,2-Trichloroethane	U		0.000293	0.00106	1	08/22/2017 09:44	WG1010895
Trichloroethene	U		0.000295	0.00106	1	08/22/2017 09:44	WG1010895
Trichlorofluoromethane	U		0.000404	0.00529	1	08/22/2017 09:44	WG1010895
1,2,3-Trichloropropane	U		0.000783	0.00264	1	08/22/2017 09:44	WG1010895
1,2,4-Trimethylbenzene	U		0.000223	0.00106	1	08/22/2017 09:44	WG1010895
1,2,3-Trimethylbenzene	U		0.000303	0.00106	1	08/22/2017 09:44	WG1010895
1,3,5-Trimethylbenzene	U		0.000281	0.00106	1	08/22/2017 09:44	WG1010895
Vinyl acetate	U		0.00253	0.0106	1	08/22/2017 09:44	WG1010895
Vinyl chloride	U		0.000308	0.00106	1	08/22/2017 09:44	WG1010895
Xylenes, Total	U		0.000738	0.00317	1	08/22/2017 09:44	WG1010895
(S) Toluene-d8	93.6			80.0-120		08/23/2017 14:38	WG1010895
(S) Toluene-d8	95.1			80.0-120		08/22/2017 09:44	WG1010895
(S) Dibromofluoromethane	98.0			74.0-131		08/23/2017 14:38	WG1010895
(S) Dibromofluoromethane	112			74.0-131		08/22/2017 09:44	WG1010895
(S) 4-Bromofluorobenzene	99.0			64.0-132		08/23/2017 14:38	WG1010895
(S) 4-Bromofluorobenzene	99.2			64.0-132		08/22/2017 09:44	WG1010895

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Collected date/time: 08/14/17 12:00

L929901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.8		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	4.54 J		0.0386	0.114	1	08/20/2017 16:05	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	93.4			77.0-120		08/20/2017 16:05	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0114	0.0570	1	08/23/2017 01:56	WG1012508
Acrylonitrile	U		0.00204	0.0114	1	08/23/2017 01:56	WG1012508
Benzene	U		0.000308	0.00114	1	08/23/2017 01:56	WG1012508
Bromobenzene	U		0.000324	0.00114	1	08/23/2017 01:56	WG1012508
Bromodichloromethane	U		0.000289	0.00114	1	08/23/2017 01:56	WG1012508
Bromochloromethane	U		0.000444	0.00570	1	08/23/2017 01:56	WG1012508
Bromoform	U		0.000483	0.00114	1	08/23/2017 01:56	WG1012508
Bromomethane	U		0.00153	0.00570	1	08/23/2017 01:56	WG1012508
n-Butylbenzene	U		0.000294	0.00114	1	08/23/2017 01:56	WG1012508
sec-Butylbenzene	U		0.000229	0.00114	1	08/23/2017 01:56	WG1012508
tert-Butylbenzene	U		0.000235	0.00114	1	08/23/2017 01:56	WG1012508
Carbon disulfide	0.00390		0.000252	0.00114	1	08/23/2017 01:56	WG1012508
Carbon tetrachloride	U		0.000374	0.00114	1	08/23/2017 01:56	WG1012508
Chlorobenzene	U		0.000242	0.00114	1	08/23/2017 01:56	WG1012508
Chlorodibromomethane	U		0.000425	0.00114	1	08/23/2017 01:56	WG1012508
Chloroethane	U		0.00108	0.00570	1	08/23/2017 01:56	WG1012508
Chloroform	U		0.000261	0.00570	1	08/23/2017 01:56	WG1012508
Chloromethane	U		0.000427	0.00285	1	08/23/2017 01:56	WG1012508
2-Chlorotoluene	U		0.000343	0.00114	1	08/23/2017 01:56	WG1012508
4-Chlorotoluene	U		0.000273	0.00114	1	08/23/2017 01:56	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00120	0.00570	1	08/23/2017 01:56	WG1012508
1,2-Dibromoethane	U		0.000391	0.00114	1	08/23/2017 01:56	WG1012508
Dibromomethane	U		0.000435	0.00114	1	08/23/2017 01:56	WG1012508
1,2-Dichlorobenzene	U		0.000347	0.00114	1	08/23/2017 01:56	WG1012508
1,3-Dichlorobenzene	U		0.000272	0.00114	1	08/23/2017 01:56	WG1012508
1,4-Dichlorobenzene	U		0.000257	0.00114	1	08/23/2017 01:56	WG1012508
Dichlorodifluoromethane	U		0.000812	0.00570	1	08/23/2017 01:56	WG1012508
1,1-Dichloroethane	U		0.000227	0.00114	1	08/23/2017 01:56	WG1012508
1,2-Dichloroethane	U		0.000302	0.00114	1	08/23/2017 01:56	WG1012508
1,1-Dichloroethene	0.00751		0.000345	0.00114	1	08/23/2017 01:56	WG1012508
cis-1,2-Dichloroethene	6.41		0.0268	0.114	100	08/23/2017 14:22	WG1012508
trans-1,2-Dichloroethene	0.0132		0.000301	0.00114	1	08/23/2017 01:56	WG1012508
1,2-Dichloropropane	U		0.000408	0.00114	1	08/23/2017 01:56	WG1012508
1,1-Dichloropropene	U		0.000361	0.00114	1	08/23/2017 01:56	WG1012508
1,3-Dichloropropane	U		0.000236	0.00114	1	08/23/2017 01:56	WG1012508
cis-1,3-Dichloropropene	U		0.000298	0.00114	1	08/23/2017 01:56	WG1012508
trans-1,3-Dichloropropene	U		0.000304	0.00114	1	08/23/2017 01:56	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000886	0.00285	1	08/23/2017 01:56	WG1012508
2,2-Dichloropropane	U		0.000318	0.00114	1	08/23/2017 01:56	WG1012508
Di-isopropyl ether	U		0.000283	0.00114	1	08/23/2017 01:56	WG1012508
Ethylbenzene	U		0.000338	0.00114	1	08/23/2017 01:56	WG1012508
Hexachloro-1,3-butadiene	U		0.000390	0.00114	1	08/23/2017 01:56	WG1012508
2-Hexanone	U		0.00156	0.0114	1	08/23/2017 01:56	WG1012508
n-Hexane	0.00815 J	J	0.000330	0.0114	1	08/23/2017 01:56	WG1012508

6 Qc

7 Gl

8 Al

9 Sc

JC 9/13/17



Collected date/time: 08/14/17 12:00

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00288	0.0114	1	08/23/2017 01:56	WG1012508
Isopropylbenzene	U		0.000277	0.00114	1	08/23/2017 01:56	WG1012508
p-Isopropyltoluene	U		0.000232	0.00114	1	08/23/2017 01:56	WG1012508
2-Butanone (MEK)	U		0.00533	0.0114	1	08/23/2017 01:56	WG1012508
Methylene Chloride	U		0.00114	0.00570	1	08/23/2017 01:56	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0114	1	08/23/2017 01:56	WG1012508
Methyl tert-butyl ether	U		0.000242	0.00114	1	08/23/2017 01:56	WG1012508
Naphthalene	U		0.00114	0.00570	1	08/23/2017 01:56	WG1012508
n-Propylbenzene	U		0.000235	0.00114	1	08/23/2017 01:56	WG1012508
Styrene	U		0.000267	0.00114	1	08/23/2017 01:56	WG1012508
1,1,1-Tetrachloroethane	U		0.000301	0.00114	1	08/23/2017 01:56	WG1012508
1,1,2-Tetrachloroethane	U		0.000416	0.00114	1	08/23/2017 01:56	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000416	0.00114	1	08/23/2017 01:56	WG1012508
Tetrachloroethene	17.2		0.229	0.832	730	08/23/2017 16:39	WG1012508
Toluene	U		0.000494	0.00570	1	08/23/2017 01:56	WG1012508
1,2,3-Trichlorobenzene	U		0.000349	0.00114	1	08/23/2017 01:56	WG1012508
1,2,4-Trichlorobenzene	U		0.000442	0.00114	1	08/23/2017 01:56	WG1012508
1,1,1-Trichloroethane	U		0.000326	0.00114	1	08/23/2017 01:56	WG1012508
1,1,2-Trichloroethane	U		0.000316	0.00114	1	08/23/2017 01:56	WG1012508
Trichloroethene	2.28		0.0318	0.114	100	08/23/2017 14:22	WG1012508
Trichlorofluoromethane	U		0.000435	0.00570	1	08/23/2017 01:56	WG1012508
1,2,3-Trichloropropane	U		0.000844	0.00285	1	08/23/2017 01:56	WG1012508
1,2,4-Trimethylbenzene	U		0.000240	0.00114	1	08/23/2017 01:56	WG1012508
1,2,3-Trimethylbenzene	U		0.000327	0.00114	1	08/23/2017 01:56	WG1012508
1,3,5-Trimethylbenzene	U		0.000303	0.00114	1	08/23/2017 01:56	WG1012508
Vinyl acetate	U		0.00272	0.0114	1	08/23/2017 01:56	WG1012508
Vinyl chloride	0.154		0.000332	0.00114	1	08/23/2017 01:56	WG1012508
Xylenes, Total	U		0.000795	0.00342	1	08/23/2017 01:56	WG1012508
(S) Toluene-d8	94.2			80.0-120		08/23/2017 01:56	WG1012508
(S) Toluene-d8	118			80.0-120		08/23/2017 14:22	WG1012508
(S) Toluene-d8	115			80.0-120		08/23/2017 16:39	WG1012508
(S) Dibromofluoromethane	99.3			74.0-131		08/23/2017 14:22	WG1012508
(S) Dibromofluoromethane	99.5			74.0-131		08/23/2017 16:39	WG1012508
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 01:56	WG1012508
(S) 4-Bromofluorobenzene	97.1			64.0-132		08/23/2017 01:56	WG1012508
(S) 4-Bromofluorobenzene	105			64.0-132		08/23/2017 16:39	WG1012508
(S) 4-Bromofluorobenzene	107			64.0-132		08/23/2017 14:22	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.6		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0370	0.109	1	08/20/2017 16:28	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	92.2			77.0-120		08/20/2017 16:28	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0109	0.0546	1	08/23/2017 02:16	WG1012508
Acrylonitrile	U		0.00195	0.0109	1	08/23/2017 02:16	WG1012508
Benzene	U		0.000295	0.00109	1	08/23/2017 02:16	WG1012508
Bromobenzene	U		0.000310	0.00109	1	08/23/2017 02:16	WG1012508
Bromodichloromethane	U		0.000277	0.00109	1	08/23/2017 02:16	WG1012508
Bromochloromethane	U		0.000426	0.00546	1	08/23/2017 02:16	WG1012508
Bromoform	U		0.000463	0.00109	1	08/23/2017 02:16	WG1012508
Bromomethane	U		0.00146	0.00546	1	08/23/2017 02:16	WG1012508
n-Butylbenzene	U		0.000282	0.00109	1	08/23/2017 02:16	WG1012508
sec-Butylbenzene	U		0.000219	0.00109	1	08/23/2017 02:16	WG1012508
tert-Butylbenzene	U		0.000225	0.00109	1	08/23/2017 02:16	WG1012508
Carbon disulfide	0.000706	J	0.000241	0.00109	1	08/23/2017 02:16	WG1012508
Carbon tetrachloride	U		0.000358	0.00109	1	08/23/2017 02:16	WG1012508
Chlorobenzene	U		0.000231	0.00109	1	08/23/2017 02:16	WG1012508
Chlorodibromomethane	U		0.000407	0.00109	1	08/23/2017 02:16	WG1012508
Chloroethane	U		0.00103	0.00546	1	08/23/2017 02:16	WG1012508
Chloroform	U		0.000250	0.00546	1	08/23/2017 02:16	WG1012508
Chloromethane	U		0.000409	0.00273	1	08/23/2017 02:16	WG1012508
2-Chlorotoluene	U		0.000329	0.00109	1	08/23/2017 02:16	WG1012508
4-Chlorotoluene	U		0.000262	0.00109	1	08/23/2017 02:16	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00115	0.00546	1	08/23/2017 02:16	WG1012508
1,2-Dibromoethane	U		0.000375	0.00109	1	08/23/2017 02:16	WG1012508
Dibromomethane	U		0.000417	0.00109	1	08/23/2017 02:16	WG1012508
1,2-Dichlorobenzene	U		0.000333	0.00109	1	08/23/2017 02:16	WG1012508
1,3-Dichlorobenzene	U		0.000261	0.00109	1	08/23/2017 02:16	WG1012508
1,4-Dichlorobenzene	U		0.000247	0.00109	1	08/23/2017 02:16	WG1012508
Dichlorodifluoromethane	U		0.000779	0.00546	1	08/23/2017 02:16	WG1012508
1,1-Dichloroethane	U		0.000217	0.00109	1	08/23/2017 02:16	WG1012508
1,2-Dichloroethane	U		0.000289	0.00109	1	08/23/2017 02:16	WG1012508
1,1-Dichloroethene	U		0.000331	0.00109	1	08/23/2017 02:16	WG1012508
cis-1,2-Dichloroethene	U		0.00642	0.0273	25	08/23/2017 16:20	WG1012508
trans-1,2-Dichloroethene	U		0.000288	0.00109	1	08/23/2017 02:16	WG1012508
1,2-Dichloropropane	U		0.000391	0.00109	1	08/23/2017 02:16	WG1012508
1,1-Dichloropropene	U		0.000346	0.00109	1	08/23/2017 02:16	WG1012508
1,3-Dichloropropane	U		0.000226	0.00109	1	08/23/2017 02:16	WG1012508
cis-1,3-Dichloropropene	U		0.000286	0.00109	1	08/23/2017 02:16	WG1012508
trans-1,3-Dichloropropene	U		0.000292	0.00109	1	08/23/2017 02:16	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000849	0.00273	1	08/23/2017 02:16	WG1012508
2,2-Dichloropropane	U		0.000305	0.00109	1	08/23/2017 02:16	WG1012508
Di-isopropyl ether	U		0.000271	0.00109	1	08/23/2017 02:16	WG1012508
Ethylbenzene	U		0.000324	0.00109	1	08/23/2017 02:16	WG1012508
Hexachloro-1,3-butadiene	U		0.000373	0.00109	1	08/23/2017 02:16	WG1012508
2-Hexanone	U		0.00150	0.0109	1	08/23/2017 02:16	WG1012508
n-Hexane	U		0.000317	0.0109	1	08/23/2017 02:16	WG1012508

6 Qc

7 Gl

8 Al

9 Sc

JC 9/13/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00276	0.0109	1	08/23/2017 02:16	WG1012508
Isopropylbenzene	U		0.000265	0.00109	1	08/23/2017 02:16	WG1012508
p-Isopropyltoluene	U		0.000223	0.00109	1	08/23/2017 02:16	WG1012508
2-Butanone (MEK)	U		0.00511	0.0109	1	08/23/2017 02:16	WG1012508
Methylene Chloride	U		0.00109	0.00546	1	08/23/2017 02:16	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00205	0.0109	1	08/23/2017 02:16	WG1012508
Methyl tert-butyl ether	U		0.000231	0.00109	1	08/23/2017 02:16	WG1012508
Naphthalene	U		0.00109	0.00546	1	08/23/2017 02:16	WG1012508
n-Propylbenzene	U		0.000225	0.00109	1	08/23/2017 02:16	WG1012508
Styrene	U		0.000256	0.00109	1	08/23/2017 02:16	WG1012508
1,1,1-Tetrachloroethane	U		0.000288	0.00109	1	08/23/2017 02:16	WG1012508
1,1,2-Tetrachloroethane	U		0.000399	0.00109	1	08/23/2017 02:16	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000399	0.00109	1	08/23/2017 02:16	WG1012508
Tetrachloroethene	0.0483		0.00753	0.0273	25	08/23/2017 16:20	WG1012508
Toluene	U		0.000474	0.00546	1	08/23/2017 02:16	WG1012508
1,2,3-Trichlorobenzene	U		0.000334	0.00109	1	08/23/2017 02:16	WG1012508
1,2,4-Trichlorobenzene	U		0.000424	0.00109	1	08/23/2017 02:16	WG1012508
1,1,1-Trichloroethane	U		0.000312	0.00109	1	08/23/2017 02:16	WG1012508
1,1,2-Trichloroethane	U		0.000302	0.00109	1	08/23/2017 02:16	WG1012508
Trichloroethene	0.00790	J	0.00762	0.0273	25	08/23/2017 16:20	WG1012508
Trichlorofluoromethane	U		0.000417	0.00546	1	08/23/2017 02:16	WG1012508
1,2,3-Trichloropropane	U		0.000809	0.00273	1	08/23/2017 02:16	WG1012508
1,2,4-Trimethylbenzene	U		0.000230	0.00109	1	08/23/2017 02:16	WG1012508
1,2,3-Trimethylbenzene	U		0.000313	0.00109	1	08/23/2017 02:16	WG1012508
1,3,5-Trimethylbenzene	U		0.000290	0.00109	1	08/23/2017 02:16	WG1012508
Vinyl acetate	U		0.00261	0.0109	1	08/23/2017 02:16	WG1012508
Vinyl chloride	0.000383	J	0.000318	0.00109	1	08/23/2017 02:16	WG1012508
Xylenes, Total	U		0.000762	0.00328	1	08/23/2017 02:16	WG1012508
(S) Toluene-d8	102			80.0-120		08/23/2017 16:20	WG1012508
(S) Toluene-d8	96.1			80.0-120		08/23/2017 02:16	WG1012508
(S) Dibromofluoromethane	95.8			74.0-131		08/23/2017 16:20	WG1012508
(S) Dibromofluoromethane	105			74.0-131		08/23/2017 02:16	WG1012508
(S) 4-Bromofluorobenzene	102			64.0-132		08/23/2017 02:16	WG1012508
(S) 4-Bromofluorobenzene	105			64.0-132		08/23/2017 16:20	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L929901-05 WG1012508: No low level sodium bisulfite vials remaining. cis-12-DCE cannot be analyzed at a lower dilution.

JC 9/13/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.0		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1.01	J	0.0372	0.110	1	08/20/2017 16:50	WG1011760
(S) a,a,a-Trifluorotoluene(FID)	94.4			77.0-120		08/20/2017 16:50	WG1011760

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0110	0.0549	1	08/19/2017 01:31	WG1011219
Acrylonitrile	U		0.00197	0.0110	1	08/19/2017 01:31	WG1011219
Benzene	U		0.000297	0.00110	1	08/19/2017 01:31	WG1011219
Bromobenzene	U		0.000312	0.00110	1	08/19/2017 01:31	WG1011219
Bromodichloromethane	U		0.000279	0.00110	1	08/19/2017 01:31	WG1011219
Bromochloromethane	U		0.000428	0.00549	1	08/19/2017 01:31	WG1011219
Bromoform	U		0.000466	0.00110	1	08/19/2017 01:31	WG1011219
Bromomethane	U	UJ	0.00147	0.00549	1	08/19/2017 01:31	WG1011219
n-Butylbenzene	U		0.000283	0.00110	1	08/19/2017 01:31	WG1011219
sec-Butylbenzene	U		0.000221	0.00110	1	08/19/2017 01:31	WG1011219
tert-Butylbenzene	U		0.000226	0.00110	1	08/19/2017 01:31	WG1011219
Carbon disulfide	0.00187		0.000243	0.00110	1	08/19/2017 01:31	WG1011219
Carbon tetrachloride	U		0.000360	0.00110	1	08/19/2017 01:31	WG1011219
Chlorobenzene	U		0.000233	0.00110	1	08/19/2017 01:31	WG1011219
Chlorodibromomethane	U		0.000410	0.00110	1	08/19/2017 01:31	WG1011219
Chloroethane	U		0.00104	0.00549	1	08/19/2017 01:31	WG1011219
Chloroform	U		0.000252	0.00549	1	08/19/2017 01:31	WG1011219
Chloromethane	U		0.000412	0.00275	1	08/19/2017 01:31	WG1011219
2-Chlorotoluene	U		0.000331	0.00110	1	08/19/2017 01:31	WG1011219
4-Chlorotoluene	U		0.000264	0.00110	1	08/19/2017 01:31	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00115	0.00549	1	08/19/2017 01:31	WG1011219
1,2-Dibromoethane	U		0.000377	0.00110	1	08/19/2017 01:31	WG1011219
Dibromomethane	U		0.000420	0.00110	1	08/19/2017 01:31	WG1011219
1,2-Dichlorobenzene	U		0.000335	0.00110	1	08/19/2017 01:31	WG1011219
1,3-Dichlorobenzene	U		0.000263	0.00110	1	08/19/2017 01:31	WG1011219
1,4-Dichlorobenzene	U		0.000248	0.00110	1	08/19/2017 01:31	WG1011219
Dichlorodifluoromethane	U		0.000783	0.00549	1	08/19/2017 01:31	WG1011219
1,1-Dichloroethane	U		0.000219	0.00110	1	08/19/2017 01:31	WG1011219
1,2-Dichloroethane	U		0.000291	0.00110	1	08/19/2017 01:31	WG1011219
1,1-Dichloroethene	0.00103	J	0.000333	0.00110	1	08/19/2017 01:31	WG1011219
cis-1,2-Dichloroethene	0.140		0.000258	0.00110	1	08/19/2017 01:31	WG1011219
trans-1,2-Dichloroethene	U		0.000290	0.00110	1	08/19/2017 01:31	WG1011219
1,2-Dichloropropane	U		0.000393	0.00110	1	08/19/2017 01:31	WG1011219
1,1-Dichloropropene	U		0.000348	0.00110	1	08/19/2017 01:31	WG1011219
1,3-Dichloropropane	U		0.000227	0.00110	1	08/19/2017 01:31	WG1011219
cis-1,3-Dichloropropene	U		0.000288	0.00110	1	08/19/2017 01:31	WG1011219
trans-1,3-Dichloropropene	U		0.000293	0.00110	1	08/19/2017 01:31	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000855	0.00275	1	08/19/2017 01:31	WG1011219
2,2-Dichloropropane	U	UJ	0.000306	0.00110	1	08/19/2017 01:31	WG1011219
Di-isopropyl ether	U		0.000272	0.00110	1	08/19/2017 01:31	WG1011219
Ethylbenzene	U		0.000326	0.00110	1	08/19/2017 01:31	WG1011219
Hexachloro-1,3-butadiene	U		0.000376	0.00110	1	08/19/2017 01:31	WG1011219
2-Hexanone	U		0.00150	0.0110	1	08/19/2017 01:31	WG1011219
n-Hexane	U		0.000319	0.0110	1	08/19/2017 01:31	WG1011219

6 Qc

7 Gl

8 Al

9 Sc

JC 9/13/17



Collected date/time: 08/14/17 14:05

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00278	0.0110	1	08/19/2017 01:31	WG1011219
Isopropylbenzene	U		0.000267	0.00110	1	08/19/2017 01:31	WG1011219
p-Isopropyltoluene	U		0.000224	0.00110	1	08/19/2017 01:31	WG1011219
2-Butanone (MEK)	U		0.00514	0.0110	1	08/19/2017 01:31	WG1011219
Methylene Chloride	U		0.00110	0.00549	1	08/19/2017 01:31	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00207	0.0110	1	08/19/2017 01:31	WG1011219
Methyl tert-butyl ether	U		0.000233	0.00110	1	08/19/2017 01:31	WG1011219
Naphthalene	U		0.00110	0.00549	1	08/19/2017 01:31	WG1011219
n-Propylbenzene	U		0.000226	0.00110	1	08/19/2017 01:31	WG1011219
Styrene	U		0.000257	0.00110	1	08/19/2017 01:31	WG1011219
1,1,1-Tetrachloroethane	U		0.000290	0.00110	1	08/19/2017 01:31	WG1011219
1,1,2-Tetrachloroethane	U		0.000401	0.00110	1	08/19/2017 01:31	WG1011219
1,1,2-Trichlorotrifluoroethane	U	UJ	0.000401	0.00110	1	08/19/2017 01:31	WG1011219
Tetrachloroethene	9.95	J	0.152	0.549	500	08/22/2017 03:29	WG1011219
Toluene	U		0.000477	0.00549	1	08/19/2017 01:31	WG1011219
1,2,3-Trichlorobenzene	U		0.000336	0.00110	1	08/19/2017 01:31	WG1011219
1,2,4-Trichlorobenzene	U		0.000426	0.00110	1	08/19/2017 01:31	WG1011219
1,1,1-Trichloroethane	U		0.000314	0.00110	1	08/19/2017 01:31	WG1011219
1,1,2-Trichloroethane	U		0.000304	0.00110	1	08/19/2017 01:31	WG1011219
Trichloroethene	2.16		0.0127	0.0456	41.5	08/20/2017 19:28	WG1011219
Trichlorofluoromethane	U		0.000420	0.00549	1	08/19/2017 01:31	WG1011219
1,2,3-Trichloropropane	U		0.000814	0.00275	1	08/19/2017 01:31	WG1011219
1,2,4-Trimethylbenzene	U		0.000232	0.00110	1	08/19/2017 01:31	WG1011219
1,2,3-Trimethylbenzene	U		0.000315	0.00110	1	08/19/2017 01:31	WG1011219
1,3,5-Trimethylbenzene	U		0.000292	0.00110	1	08/19/2017 01:31	WG1011219
Vinyl acetate	U		0.00263	0.0110	1	08/19/2017 01:31	WG1011219
Vinyl chloride	0.000558	J	0.000320	0.00110	1	08/19/2017 01:31	WG1011219
Xylenes, Total	U		0.000767	0.00330	1	08/19/2017 01:31	WG1011219
(S) Toluene-d8	110			80.0-120		08/19/2017 01:31	WG1011219
(S) Toluene-d8	99.6			80.0-120		08/22/2017 03:29	WG1011219
(S) Toluene-d8	107			80.0-120		08/20/2017 19:28	WG1011219
(S) Dibromofluoromethane	105			74.0-131		08/19/2017 01:31	WG1011219
(S) Dibromofluoromethane	92.9			74.0-131		08/20/2017 19:28	WG1011219
(S) Dibromofluoromethane	103			74.0-131		08/22/2017 03:29	WG1011219
(S) 4-Bromofluorobenzene	106			64.0-132		08/19/2017 01:31	WG1011219
(S) 4-Bromofluorobenzene	99.6			64.0-132		08/20/2017 19:28	WG1011219
(S) 4-Bromofluorobenzene	100			64.0-132		08/22/2017 03:29	WG1011219

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.8		1	08/21/2017 09:20	WG1011913

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1.10	J	0.951	2.81	25.75	08/22/2017 14:04	WG1011765
(S) a,a,a-Trifluorotoluene(FID)	98.9			77.0-120		08/22/2017 14:04	WG1011765

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0109	0.0545	1	08/19/2017 01:51	WG1011219
Acrylonitrile	U		0.00195	0.0109	1	08/19/2017 01:51	WG1011219
Benzene	U		0.000294	0.00109	1	08/19/2017 01:51	WG1011219
Bromobenzene	U		0.000309	0.00109	1	08/19/2017 01:51	WG1011219
Bromodichloromethane	U		0.000277	0.00109	1	08/19/2017 01:51	WG1011219
Bromochloromethane	U		0.000425	0.00545	1	08/19/2017 01:51	WG1011219
Bromoform	U		0.000462	0.00109	1	08/19/2017 01:51	WG1011219
Bromomethane	U	UJ	0.00146	0.00545	1	08/19/2017 01:51	WG1011219
n-Butylbenzene	U		0.000281	0.00109	1	08/19/2017 01:51	WG1011219
sec-Butylbenzene	U		0.000219	0.00109	1	08/19/2017 01:51	WG1011219
tert-Butylbenzene	U		0.000224	0.00109	1	08/19/2017 01:51	WG1011219
Carbon disulfide	0.000401	J	0.000241	0.00109	1	08/19/2017 01:51	WG1011219
Carbon tetrachloride	U		0.000357	0.00109	1	08/19/2017 01:51	WG1011219
Chlorobenzene	U		0.000231	0.00109	1	08/19/2017 01:51	WG1011219
Chlorodibromomethane	U		0.000406	0.00109	1	08/19/2017 01:51	WG1011219
Chloroethane	U		0.00103	0.00545	1	08/19/2017 01:51	WG1011219
Chloroform	U		0.000249	0.00545	1	08/19/2017 01:51	WG1011219
Chloromethane	U		0.000409	0.00272	1	08/19/2017 01:51	WG1011219
2-Chlorotoluene	U		0.000328	0.00109	1	08/19/2017 01:51	WG1011219
4-Chlorotoluene	U		0.000261	0.00109	1	08/19/2017 01:51	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00545	1	08/19/2017 01:51	WG1011219
1,2-Dibromoethane	U		0.000374	0.00109	1	08/19/2017 01:51	WG1011219
Dibromomethane	U		0.000416	0.00109	1	08/19/2017 01:51	WG1011219
1,2-Dichlorobenzene	U		0.000332	0.00109	1	08/19/2017 01:51	WG1011219
1,3-Dichlorobenzene	U		0.000260	0.00109	1	08/19/2017 01:51	WG1011219
1,4-Dichlorobenzene	U		0.000246	0.00109	1	08/19/2017 01:51	WG1011219
Dichlorodifluoromethane	U		0.000777	0.00545	1	08/19/2017 01:51	WG1011219
1,1-Dichloroethane	U		0.000217	0.00109	1	08/19/2017 01:51	WG1011219
1,2-Dichloroethane	U		0.000289	0.00109	1	08/19/2017 01:51	WG1011219
1,1-Dichloroethene	U		0.000330	0.00109	1	08/19/2017 01:51	WG1011219
cis-1,2-Dichloroethene	0.00201		0.000256	0.00109	1	08/19/2017 01:51	WG1011219
trans-1,2-Dichloroethene	U		0.000288	0.00109	1	08/19/2017 01:51	WG1011219
1,2-Dichloropropane	U		0.000390	0.00109	1	08/19/2017 01:51	WG1011219
1,1-Dichloropropene	U		0.000345	0.00109	1	08/19/2017 01:51	WG1011219
1,3-Dichloropropane	U		0.000226	0.00109	1	08/19/2017 01:51	WG1011219
cis-1,3-Dichloropropene	U		0.000285	0.00109	1	08/19/2017 01:51	WG1011219
trans-1,3-Dichloropropene	U		0.000291	0.00109	1	08/19/2017 01:51	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000848	0.00272	1	08/19/2017 01:51	WG1011219
2,2-Dichloropropane	U	UJ	0.000304	0.00109	1	08/19/2017 01:51	WG1011219
Di-isopropyl ether	U		0.000270	0.00109	1	08/19/2017 01:51	WG1011219
Ethylbenzene	U		0.000324	0.00109	1	08/19/2017 01:51	WG1011219
Hexachloro-1,3-butadiene	U		0.000373	0.00109	1	08/19/2017 01:51	WG1011219
2-Hexanone	U		0.00149	0.0109	1	08/19/2017 01:51	WG1011219
n-Hexane	0.000515	J	0.000316	0.0109	1	08/19/2017 01:51	WG1011219

6 Qc

7 Gl

8 Al

9 Sc

JC 9/13/17



Collected date/time: 08/14/17 16:40

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00276	0.0109	1	08/19/2017 01:51	WG1011219
Isopropylbenzene	U		0.000265	0.00109	1	08/19/2017 01:51	WG1011219
p-Isopropyltoluene	U		0.000222	0.00109	1	08/19/2017 01:51	WG1011219
2-Butanone (MEK)	U		0.00510	0.0109	1	08/19/2017 01:51	WG1011219
Methylene Chloride	U		0.00109	0.00545	1	08/19/2017 01:51	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00205	0.0109	1	08/19/2017 01:51	WG1011219
Methyl tert-butyl ether	U		0.000231	0.00109	1	08/19/2017 01:51	WG1011219
Naphthalene	U		0.00109	0.00545	1	08/19/2017 01:51	WG1011219
n-Propylbenzene	U		0.000224	0.00109	1	08/19/2017 01:51	WG1011219
Styrene	U		0.000255	0.00109	1	08/19/2017 01:51	WG1011219
1,1,1-Tetrachloroethane	U		0.000288	0.00109	1	08/19/2017 01:51	WG1011219
1,1,2-Tetrachloroethane	U		0.000398	0.00109	1	08/19/2017 01:51	WG1011219
1,1,2-Trichlorotrifluoroethane	U	UJ	0.000398	0.00109	1	08/19/2017 01:51	WG1011219
Tetrachloroethene	U	UJ	0.000301	0.00109	1	08/20/2017 19:53	WG1011219
Toluene	U		0.000473	0.00545	1	08/19/2017 01:51	WG1011219
1,2,3-Trichlorobenzene	U		0.000333	0.00109	1	08/19/2017 01:51	WG1011219
1,2,4-Trichlorobenzene	U		0.000423	0.00109	1	08/19/2017 01:51	WG1011219
1,1,1-Trichloroethane	U		0.000312	0.00109	1	08/19/2017 01:51	WG1011219
1,1,2-Trichloroethane	U		0.000302	0.00109	1	08/19/2017 01:51	WG1011219
Trichloroethene	U		0.000304	0.00109	1	08/20/2017 19:53	WG1011219
Trichlorofluoromethane	U		0.000416	0.00545	1	08/19/2017 01:51	WG1011219
1,2,3-Trichloropropane	U		0.000807	0.00272	1	08/19/2017 01:51	WG1011219
1,2,4-Trimethylbenzene	U		0.000230	0.00109	1	08/19/2017 01:51	WG1011219
1,2,3-Trimethylbenzene	U		0.000313	0.00109	1	08/19/2017 01:51	WG1011219
1,3,5-Trimethylbenzene	U		0.000290	0.00109	1	08/19/2017 01:51	WG1011219
Vinyl acetate	U		0.00260	0.0109	1	08/19/2017 01:51	WG1011219
Vinyl chloride	U		0.000317	0.00109	1	08/19/2017 01:51	WG1011219
Xylenes, Total	U		0.000760	0.00327	1	08/19/2017 01:51	WG1011219
(S) Toluene-d8	95.5			80.0-120		08/20/2017 19:53	WG1011219
(S) Toluene-d8	109			80.0-120		08/19/2017 01:51	WG1011219
(S) Dibromofluoromethane	107			74.0-131		08/19/2017 01:51	WG1011219
(S) Dibromofluoromethane	106			74.0-131		08/20/2017 19:53	WG1011219
(S) 4-Bromofluorobenzene	104			64.0-132		08/19/2017 01:51	WG1011219
(S) 4-Bromofluorobenzene	98.8			64.0-132		08/20/2017 19:53	WG1011219

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Collected date/time: 08/14/17 16:30

L929901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.7		1	08/21/2017 09:08	WG1011914

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.988	J	0.924	2.73	25	08/22/2017 14:25	WG1011765
(S) a,a,a-Trifluorotoluene(FID)	99.6			77.0-120		08/22/2017 14:25	WG1011765

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0109	0.0545	1	08/19/2017 02:11	WG1011219
Acrylonitrile	U		0.00195	0.0109	1	08/19/2017 02:11	WG1011219
Benzene	U		0.000294	0.00109	1	08/19/2017 02:11	WG1011219
Bromobenzene	U		0.000310	0.00109	1	08/19/2017 02:11	WG1011219
Bromodichloromethane	U		0.000277	0.00109	1	08/19/2017 02:11	WG1011219
Bromochloromethane	U		0.000425	0.00545	1	08/19/2017 02:11	WG1011219
Bromoform	U		0.000462	0.00109	1	08/19/2017 02:11	WG1011219
Bromomethane	U	UJ	0.00146	0.00545	1	08/19/2017 02:11	WG1011219
n-Butylbenzene	U		0.000281	0.00109	1	08/19/2017 02:11	WG1011219
sec-Butylbenzene	U		0.000219	0.00109	1	08/19/2017 02:11	WG1011219
tert-Butylbenzene	U		0.000225	0.00109	1	08/19/2017 02:11	WG1011219
Carbon disulfide	0.000339	J	0.000241	0.00109	1	08/19/2017 02:11	WG1011219
Carbon tetrachloride	U		0.000358	0.00109	1	08/19/2017 02:11	WG1011219
Chlorobenzene	U		0.000231	0.00109	1	08/19/2017 02:11	WG1011219
Chlorodibromomethane	U		0.000407	0.00109	1	08/19/2017 02:11	WG1011219
Chloroethane	U		0.00103	0.00545	1	08/19/2017 02:11	WG1011219
Chloroform	U		0.000250	0.00545	1	08/19/2017 02:11	WG1011219
Chloromethane	U		0.000409	0.00273	1	08/19/2017 02:11	WG1011219
2-Chlorotoluene	U		0.000328	0.00109	1	08/19/2017 02:11	WG1011219
4-Chlorotoluene	U		0.000262	0.00109	1	08/19/2017 02:11	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00545	1	08/19/2017 02:11	WG1011219
1,2-Dibromoethane	U		0.000374	0.00109	1	08/19/2017 02:11	WG1011219
Dibromomethane	U		0.000416	0.00109	1	08/19/2017 02:11	WG1011219
1,2-Dichlorobenzene	U		0.000332	0.00109	1	08/19/2017 02:11	WG1011219
1,3-Dichlorobenzene	U		0.000261	0.00109	1	08/19/2017 02:11	WG1011219
1,4-Dichlorobenzene	U		0.000246	0.00109	1	08/19/2017 02:11	WG1011219
Dichlorodifluoromethane	U		0.000777	0.00545	1	08/19/2017 02:11	WG1011219
1,1-Dichloroethane	U		0.000217	0.00109	1	08/19/2017 02:11	WG1011219
1,2-Dichloroethane	U		0.000289	0.00109	1	08/19/2017 02:11	WG1011219
1,1-Dichloroethene	U		0.000330	0.00109	1	08/19/2017 02:11	WG1011219
cis-1,2-Dichloroethene	0.000647	J	0.000256	0.00109	1	08/19/2017 02:11	WG1011219
trans-1,2-Dichloroethene	U		0.000288	0.00109	1	08/19/2017 02:11	WG1011219
1,2-Dichloropropane	U		0.000390	0.00109	1	08/19/2017 02:11	WG1011219
1,1-Dichloropropene	U		0.000346	0.00109	1	08/19/2017 02:11	WG1011219
1,3-Dichloropropane	U		0.000226	0.00109	1	08/19/2017 02:11	WG1011219
cis-1,3-Dichloropropene	U		0.000286	0.00109	1	08/19/2017 02:11	WG1011219
trans-1,3-Dichloropropene	U		0.000291	0.00109	1	08/19/2017 02:11	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000848	0.00273	1	08/19/2017 02:11	WG1011219
2,2-Dichloropropane	U	UJ	0.000304	0.00109	1	08/19/2017 02:11	WG1011219
Di-isopropyl ether	U		0.000270	0.00109	1	08/19/2017 02:11	WG1011219
Ethylbenzene	U		0.000324	0.00109	1	08/19/2017 02:11	WG1011219
Hexachloro-1,3-butadiene	U		0.000373	0.00109	1	08/19/2017 02:11	WG1011219
2-Hexanone	U		0.00149	0.0109	1	08/19/2017 02:11	WG1011219
n-Hexane	0.000634	J	0.000316	0.0109	1	08/19/2017 02:11	WG1011219

6 Qc

7 Gl

8 Al

9 Sc

JC 9/13/17



Collected date/time: 08/14/17 16:30

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00276	0.0109	1	08/19/2017 02:11	WG1011219
Isopropylbenzene	U		0.000265	0.00109	1	08/19/2017 02:11	WG1011219
p-Isopropyltoluene	U		0.000222	0.00109	1	08/19/2017 02:11	WG1011219
2-Butanone (MEK)	U		0.00510	0.0109	1	08/19/2017 02:11	WG1011219
Methylene Chloride	U		0.00109	0.00545	1	08/19/2017 02:11	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00205	0.0109	1	08/19/2017 02:11	WG1011219
Methyl tert-butyl ether	U		0.000231	0.00109	1	08/19/2017 02:11	WG1011219
Naphthalene	U		0.00109	0.00545	1	08/19/2017 02:11	WG1011219
n-Propylbenzene	U		0.000225	0.00109	1	08/19/2017 02:11	WG1011219
Styrene	U		0.000255	0.00109	1	08/19/2017 02:11	WG1011219
1,1,1-Tetrachloroethane	U		0.000288	0.00109	1	08/19/2017 02:11	WG1011219
1,1,2-Tetrachloroethane	U		0.000398	0.00109	1	08/19/2017 02:11	WG1011219
1,1,2-Trichlorotrifluoroethane	U	UJ	J0	0.000398	0.00109	08/19/2017 02:11	WG1011219
Tetrachloroethene	0.00283	J	J4	0.000301	0.00109	08/20/2017 20:19	WG1011219
Toluene	U		0.000473	0.00545	1	08/19/2017 02:11	WG1011219
1,2,3-Trichlorobenzene	U		0.000334	0.00109	1	08/19/2017 02:11	WG1011219
1,2,4-Trichlorobenzene	U		0.000423	0.00109	1	08/19/2017 02:11	WG1011219
1,1,1-Trichloroethane	U		0.000312	0.00109	1	08/19/2017 02:11	WG1011219
1,1,2-Trichloroethane	U		0.000302	0.00109	1	08/19/2017 02:11	WG1011219
Trichloroethene	U		0.000304	0.00109	1	08/19/2017 02:11	WG1011219
Trichlorofluoromethane	U		0.000416	0.00545	1	08/19/2017 02:11	WG1011219
1,2,3-Trichloropropane	U		0.000808	0.00273	1	08/19/2017 02:11	WG1011219
1,2,4-Trimethylbenzene	U		0.000230	0.00109	1	08/19/2017 02:11	WG1011219
1,2,3-Trimethylbenzene	U		0.000313	0.00109	1	08/19/2017 02:11	WG1011219
1,3,5-Trimethylbenzene	U		0.000290	0.00109	1	08/19/2017 02:11	WG1011219
Vinyl acetate	U		0.00261	0.0109	1	08/19/2017 02:11	WG1011219
Vinyl chloride	0.000386	J	J	0.000317	0.00109	08/19/2017 02:11	WG1011219
Xylenes, Total	U		0.000761	0.00327	1	08/19/2017 02:11	WG1011219
(S) Toluene-d8	107			80.0-120		08/19/2017 02:11	WG1011219
(S) Toluene-d8	96.9			80.0-120		08/20/2017 20:19	WG1011219
(S) Dibromofluoromethane	107			74.0-131		08/20/2017 20:19	WG1011219
(S) Dibromofluoromethane	107			74.0-131		08/19/2017 02:11	WG1011219
(S) 4-Bromofluorobenzene	102			64.0-132		08/19/2017 02:11	WG1011219
(S) 4-Bromofluorobenzene	100			64.0-132		08/20/2017 20:19	WG1011219

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Collected date/time: 08/14/17 13:50

L929901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.1		1	08/21/2017 09:08	WG1011914

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0353	0.104	1	08/22/2017 14:47	WG1011765
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-120		08/22/2017 14:47	WG1011765

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0104	0.0520	1	08/19/2017 02:31	WG1011219
Acrylonitrile	U		0.00186	0.0104	1	08/19/2017 02:31	WG1011219
Benzene	U		0.000281	0.00104	1	08/19/2017 02:31	WG1011219
Bromobenzene	U		0.000295	0.00104	1	08/19/2017 02:31	WG1011219
Bromodichloromethane	U		0.000264	0.00104	1	08/19/2017 02:31	WG1011219
Bromochloromethane	U		0.000406	0.00520	1	08/19/2017 02:31	WG1011219
Bromoform	U		0.000441	0.00104	1	08/19/2017 02:31	WG1011219
Bromomethane	U	UJ	0.00139	0.00520	1	08/19/2017 02:31	WG1011219
n-Butylbenzene	U		0.000268	0.00104	1	08/19/2017 02:31	WG1011219
sec-Butylbenzene	U		0.000209	0.00104	1	08/19/2017 02:31	WG1011219
tert-Butylbenzene	U		0.000214	0.00104	1	08/19/2017 02:31	WG1011219
Carbon disulfide	0.000485	J	0.000230	0.00104	1	08/19/2017 02:31	WG1011219
Carbon tetrachloride	U		0.000341	0.00104	1	08/19/2017 02:31	WG1011219
Chlorobenzene	U		0.000221	0.00104	1	08/19/2017 02:31	WG1011219
Chlorodibromomethane	U		0.000388	0.00104	1	08/19/2017 02:31	WG1011219
Chloroethane	U		0.000984	0.00520	1	08/19/2017 02:31	WG1011219
Chloroform	U		0.000238	0.00520	1	08/19/2017 02:31	WG1011219
Chloromethane	U		0.000390	0.00260	1	08/19/2017 02:31	WG1011219
2-Chlorotoluene	U		0.000313	0.00104	1	08/19/2017 02:31	WG1011219
4-Chlorotoluene	U		0.000250	0.00104	1	08/19/2017 02:31	WG1011219
1,2-Dibromo-3-Chloropropane	U		0.00109	0.00520	1	08/19/2017 02:31	WG1011219
1,2-Dibromoethane	U		0.000357	0.00104	1	08/19/2017 02:31	WG1011219
Dibromomethane	U		0.000397	0.00104	1	08/19/2017 02:31	WG1011219
1,2-Dichlorobenzene	U		0.000317	0.00104	1	08/19/2017 02:31	WG1011219
1,3-Dichlorobenzene	U		0.000249	0.00104	1	08/19/2017 02:31	WG1011219
1,4-Dichlorobenzene	U		0.000235	0.00104	1	08/19/2017 02:31	WG1011219
Dichlorodifluoromethane	U		0.000742	0.00520	1	08/19/2017 02:31	WG1011219
1,1-Dichloroethane	U		0.000207	0.00104	1	08/19/2017 02:31	WG1011219
1,2-Dichloroethane	U		0.000276	0.00104	1	08/19/2017 02:31	WG1011219
1,1-Dichloroethene	U		0.000315	0.00104	1	08/19/2017 02:31	WG1011219
cis-1,2-Dichloroethene	0.00686		0.000244	0.00104	1	08/19/2017 02:31	WG1011219
trans-1,2-Dichloroethene	U		0.000275	0.00104	1	08/19/2017 02:31	WG1011219
1,2-Dichloropropane	U		0.000372	0.00104	1	08/19/2017 02:31	WG1011219
1,1-Dichloropropene	U		0.000330	0.00104	1	08/19/2017 02:31	WG1011219
1,3-Dichloropropane	U		0.000215	0.00104	1	08/19/2017 02:31	WG1011219
cis-1,3-Dichloropropene	U		0.000273	0.00104	1	08/19/2017 02:31	WG1011219
trans-1,3-Dichloropropene	U		0.000278	0.00104	1	08/19/2017 02:31	WG1011219
trans-1,4-Dichloro-2-butene	U		0.000809	0.00260	1	08/19/2017 02:31	WG1011219
2,2-Dichloropropane	U	UJ	0.000290	0.00104	1	08/19/2017 02:31	WG1011219
Di-isopropyl ether	U		0.000258	0.00104	1	08/19/2017 02:31	WG1011219
Ethylbenzene	U		0.000309	0.00104	1	08/19/2017 02:31	WG1011219
Hexachloro-1,3-butadiene	U		0.000356	0.00104	1	08/19/2017 02:31	WG1011219
2-Hexanone	U		0.00143	0.0104	1	08/19/2017 02:31	WG1011219
n-Hexane	U		0.000302	0.0104	1	08/19/2017 02:31	WG1011219

JC 9/13/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00263	0.0104	1	08/19/2017 02:31	WG1011219
Isopropylbenzene	U		0.000253	0.00104	1	08/19/2017 02:31	WG1011219
p-Isopropyltoluene	U		0.000212	0.00104	1	08/19/2017 02:31	WG1011219
2-Butanone (MEK)	U		0.00487	0.0104	1	08/19/2017 02:31	WG1011219
Methylene Chloride	U		0.00104	0.00520	1	08/19/2017 02:31	WG1011219
4-Methyl-2-pentanone (MIBK)	U		0.00196	0.0104	1	08/19/2017 02:31	WG1011219
Methyl tert-butyl ether	U		0.000221	0.00104	1	08/19/2017 02:31	WG1011219
Naphthalene	U		0.00104	0.00520	1	08/19/2017 02:31	WG1011219
n-Propylbenzene	U		0.000214	0.00104	1	08/19/2017 02:31	WG1011219
Styrene	U		0.000243	0.00104	1	08/19/2017 02:31	WG1011219
1,1,1,2-Tetrachloroethane	U		0.000275	0.00104	1	08/19/2017 02:31	WG1011219
1,1,2,2-Tetrachloroethane	U		0.000380	0.00104	1	08/19/2017 02:31	WG1011219
1,1,2-Trichlorotrifluoroethane	U	UJ	JO	0.000380	0.00104	08/19/2017 02:31	WG1011219
Tetrachloroethene	0.00866	J	JO J4	0.000287	0.00104	08/19/2017 02:31	WG1011219
Toluene	U		0.000451	0.00520	1	08/19/2017 02:31	WG1011219
1,2,3-Trichlorobenzene	U		0.000318	0.00104	1	08/19/2017 02:31	WG1011219
1,2,4-Trichlorobenzene	U		0.000404	0.00104	1	08/19/2017 02:31	WG1011219
1,1,1-Trichloroethane	U		0.000298	0.00104	1	08/19/2017 02:31	WG1011219
1,1,2-Trichloroethane	U		0.000288	0.00104	1	08/19/2017 02:31	WG1011219
Trichloroethene	0.00248		0.000290	0.00104	1	08/19/2017 02:31	WG1011219
Trichlorofluoromethane	U		0.000397	0.00520	1	08/19/2017 02:31	WG1011219
1,2,3-Trichloropropane	U		0.000771	0.00260	1	08/19/2017 02:31	WG1011219
1,2,4-Trimethylbenzene	U		0.000219	0.00104	1	08/19/2017 02:31	WG1011219
1,2,3-Trimethylbenzene	U		0.000299	0.00104	1	08/19/2017 02:31	WG1011219
1,3,5-Trimethylbenzene	U		0.000277	0.00104	1	08/19/2017 02:31	WG1011219
Vinyl acetate	U		0.00249	0.0104	1	08/19/2017 02:31	WG1011219
Vinyl chloride	0.000368	J	J	0.000303	0.00104	08/19/2017 02:31	WG1011219
Xylenes, Total	U		0.000726	0.00312	1	08/19/2017 02:31	WG1011219
(S) Toluene-d8	112			80.0-120		08/19/2017 02:31	WG1011219
(S) Dibromofluoromethane	107			74.0-131		08/19/2017 02:31	WG1011219
(S) 4-Bromofluorobenzene	100			64.0-132		08/19/2017 02:31	WG1011219

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17



Collected date/time: 08/14/17 00:00

L929901

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/20/2017 16:07	WG1011763
(S) a,a,a-Trifluorotoluene(FID)	98.4			77.0-122		08/20/2017 16:07	WG1011763

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<u>JO J3</u>	1.05	25.0	1	08/17/2017 22:38	WG1010972
Acrylonitrile	U		0.873	5.00	1	08/17/2017 22:38	WG1010972
Benzene	U		0.0896	0.500	1	08/17/2017 22:38	WG1010972
Bromobenzene	U		0.133	0.500	1	08/17/2017 22:38	WG1010972
Bromodichloromethane	U		0.0800	0.500	1	08/17/2017 22:38	WG1010972
Bromochloromethane	U		0.145	0.500	1	08/17/2017 22:38	WG1010972
Bromoform	U		0.186	0.500	1	08/17/2017 22:38	WG1010972
Bromomethane	U		0.157	2.50	1	08/17/2017 22:38	WG1010972
n-Butylbenzene	U		0.143	0.500	1	08/17/2017 22:38	WG1010972
sec-Butylbenzene	U		0.134	0.500	1	08/17/2017 22:38	WG1010972
tert-Butylbenzene	U		0.183	0.500	1	08/17/2017 22:38	WG1010972
Carbon disulfide	U		0.101	0.500	1	08/17/2017 22:38	WG1010972
Carbon tetrachloride	U		0.159	0.500	1	08/17/2017 22:38	WG1010972
Chlorobenzene	U		0.140	0.500	1	08/17/2017 22:38	WG1010972
Chlorodibromomethane	U		0.128	0.500	1	08/17/2017 22:38	WG1010972
Chloroethane	U		0.141	2.50	1	08/17/2017 22:38	WG1010972
Chloroform	U		0.0860	0.500	1	08/17/2017 22:38	WG1010972
Chloromethane	U		0.153	1.25	1	08/17/2017 22:38	WG1010972
2-Chlorotoluene	U		0.111	0.500	1	08/17/2017 22:38	WG1010972
4-Chlorotoluene	U		0.0972	0.500	1	08/17/2017 22:38	WG1010972
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/17/2017 22:38	WG1010972
1,2-Dibromoethane	U		0.193	0.500	1	08/17/2017 22:38	WG1010972
Dibromomethane	U		0.117	0.500	1	08/17/2017 22:38	WG1010972
1,2-Dichlorobenzene	U		0.101	0.500	1	08/17/2017 22:38	WG1010972
1,3-Dichlorobenzene	U		0.130	0.500	1	08/17/2017 22:38	WG1010972
1,4-Dichlorobenzene	U		0.121	0.500	1	08/17/2017 22:38	WG1010972
Dichlorodifluoromethane	U	<u>JO</u>	0.127	2.50	1	08/17/2017 22:38	WG1010972
1,1-Dichloroethane	U		0.114	0.500	1	08/17/2017 22:38	WG1010972
1,2-Dichloroethane	U		0.108	0.500	1	08/17/2017 22:38	WG1010972
1,1-Dichloroethene	U		0.188	0.500	1	08/17/2017 22:38	WG1010972
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/17/2017 22:38	WG1010972
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/17/2017 22:38	WG1010972
1,2-Dichloropropane	U		0.190	0.500	1	08/17/2017 22:38	WG1010972
1,1-Dichloropropene	U		0.128	0.500	1	08/17/2017 22:38	WG1010972
1,3-Dichloropropane	U		0.147	1.00	1	08/17/2017 22:38	WG1010972
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/17/2017 22:38	WG1010972
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/17/2017 22:38	WG1010972
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/17/2017 22:38	WG1010972
2,2-Dichloropropane	U		0.0929	0.500	1	08/17/2017 22:38	WG1010972
Di-isopropyl ether	U		0.0924	0.500	1	08/17/2017 22:38	WG1010972
Ethylbenzene	U		0.158	0.500	1	08/17/2017 22:38	WG1010972
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/17/2017 22:38	WG1010972
2-Hexanone	U		0.757	5.00	1	08/17/2017 22:38	WG1010972
n-Hexane	U		0.305	5.00	1	08/17/2017 22:38	WG1010972
Iodomethane	U		0.377	10.0	1	08/17/2017 22:38	WG1010972
Isopropylbenzene	U		0.126	0.500	1	08/17/2017 22:38	WG1010972
p-Isopropyltoluene	U		0.138	0.500	1	08/17/2017 22:38	WG1010972
2-Butanone (MEK)	U	<u>JO</u>	1.28	5.00	1	08/17/2017 22:38	WG1010972

JC 9/13/17



Collected date/time: 08/14/17 00:00

L929901

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	08/17/2017 22:38	WG1010972
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/17/2017 22:38	WG1010972
Methyl tert-butyl ether	U		0.102	0.500	1	08/17/2017 22:38	WG1010972
Naphthalene	U		0.174	2.50	1	08/17/2017 22:38	WG1010972
n-Propylbenzene	U		0.162	0.500	1	08/17/2017 22:38	WG1010972
Styrene	U		0.117	0.500	1	08/17/2017 22:38	WG1010972
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/17/2017 22:38	WG1010972
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/17/2017 22:38	WG1010972
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/17/2017 22:38	WG1010972
Tetrachloroethene	U		0.199	0.500	1	08/17/2017 22:38	WG1010972
Toluene	U		0.412	0.500	1	08/17/2017 22:38	WG1010972
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/17/2017 22:38	WG1010972
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/17/2017 22:38	WG1010972
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/17/2017 22:38	WG1010972
1,1,2-Trichloroethane	U		0.186	0.500	1	08/17/2017 22:38	WG1010972
Trichloroethene	U		0.153	0.500	1	08/17/2017 22:38	WG1010972
Trichlorofluoromethane	U		0.130	2.50	1	08/17/2017 22:38	WG1010972
1,2,3-Trichloropropane	U		0.247	2.50	1	08/17/2017 22:38	WG1010972
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/17/2017 22:38	WG1010972
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/17/2017 22:38	WG1010972
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/17/2017 22:38	WG1010972
Vinyl acetate	U		0.645	5.00	1	08/17/2017 22:38	WG1010972
Vinyl chloride	U		0.118	0.500	1	08/17/2017 22:38	WG1010972
Xylenes, Total	U		0.316	1.50	1	08/17/2017 22:38	WG1010972
(S) Toluene-d8	104			80.0-120		08/17/2017 22:38	WG1010972
(S) Dibromofluoromethane	101			76.0-123		08/17/2017 22:38	WG1010972
(S) 4-Bromofluorobenzene	107			80.0-120		08/17/2017 22:38	WG1010972

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/13/17

August 24, 2017

PES Environmental, Inc.- WA

Sample Delivery Group: L930317
Samples Received: 08/17/2017
Project Number:
Description: American Linen Project

Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



MW-133-85 L930317-01 Solid

Collected by
Shannon McKernan

Collected date/time
08/15/17 15:40

Received date/time
08/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012110	1	08/22/17 10:45	08/22/17 10:58	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012776	1	08/15/17 15:40	08/23/17 17:19	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	25	08/15/17 15:40	08/23/17 18:27	ACG

1
Cp

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Tc

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Ss

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Cn

5
Sr

6
Qc

7
Gl

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Al

9
Sc

MW-133-95 L930317-02 Solid

Collected by
Shannon McKernan

Collected date/time
08/16/17 08:50

Received date/time
08/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012110	1	08/22/17 10:45	08/22/17 10:58	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012776	1	08/16/17 08:50	08/23/17 17:40	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/16/17 08:50	08/23/17 03:39	ACG

MW-133-105 L930317-03 Solid

Collected by
Shannon McKernan

Collected date/time
08/16/17 10:45

Received date/time
08/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012110	1	08/22/17 10:45	08/22/17 10:58	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012776	1	08/16/17 10:45	08/23/17 18:02	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/16/17 10:45	08/23/17 03:59	ACG

MW-133-120 L930317-04 Solid

Collected by
Shannon McKernan

Collected date/time
08/16/17 11:45

Received date/time
08/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012110	1	08/22/17 10:45	08/22/17 10:58	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012776	1	08/16/17 11:45	08/23/17 18:23	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	25	08/16/17 11:45	08/23/17 18:48	ACG

MW-133-130 L930317-05 Solid

Collected by
Shannon McKernan

Collected date/time
08/16/17 14:20

Received date/time
08/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012110	1	08/22/17 10:45	08/22/17 10:58	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012776	1	08/16/17 14:20	08/23/17 18:44	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/16/17 14:20	08/23/17 04:41	ACG

MW-133-135 L930317-06 Solid

Collected by
Shannon McKernan

Collected date/time
08/16/17 15:00

Received date/time
08/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012110	1	08/22/17 10:45	08/22/17 10:58	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012776	25	08/16/17 15:00	08/24/17 13:28	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/16/17 15:00	08/23/17 05:01	ACG

SAMPLE SUMMARY



MW-133-90-W L930317-07 GW

Collected by	Collected date/time	Received date/time
Shannon McKernan	08/15/17 17:05	08/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012440	1	08/23/17 04:12	08/23/17 04:12	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011540	5	08/19/17 13:35	08/19/17 13:35	JAH

TRIP BLANK L930317-08 GW

Collected by	Collected date/time	Received date/time
Shannon McKernan	03/27/17 00:00	08/17/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012440	1	08/22/17 21:07	08/22/17 21:07	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1011540	1	08/19/17 11:36	08/19/17 11:36	JAH

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

Sample Handling and Receiving

VOC pH outside of method requirement.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L930317-07	MW-133-90-W	NWTPHGX

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Collected date/time: 08/15/17 15:40

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.3		1	08/22/2017 10:58	WG1012110

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1.28		0.0397	0.117	1	08/23/2017 17:19	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		08/23/2017 17:19	WG1012776

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.293	1.47	25	08/23/2017 18:27	WG1012508
Acrylonitrile	U		0.0525	0.293	25	08/23/2017 18:27	WG1012508
Benzene	U		0.00791	0.0293	25	08/23/2017 18:27	WG1012508
Bromobenzene	U		0.00832	0.0293	25	08/23/2017 18:27	WG1012508
Bromodichloromethane	U		0.00744	0.0293	25	08/23/2017 18:27	WG1012508
Bromochloromethane	U		0.0114	0.147	25	08/23/2017 18:27	WG1012508
Bromoform	U		0.0124	0.0293	25	08/23/2017 18:27	WG1012508
Bromomethane	U		0.0393	0.147	25	08/23/2017 18:27	WG1012508
n-Butylbenzene	U		0.00756	0.0293	25	08/23/2017 18:27	WG1012508
sec-Butylbenzene	U		0.00588	0.0293	25	08/23/2017 18:27	WG1012508
tert-Butylbenzene	U		0.00604	0.0293	25	08/23/2017 18:27	WG1012508
Carbon disulfide	U		0.00647	0.0293	25	08/23/2017 18:27	WG1012508
Carbon tetrachloride	U		0.00961	0.0293	25	08/23/2017 18:27	WG1012508
Chlorobenzene	U		0.00621	0.0293	25	08/23/2017 18:27	WG1012508
Chlorodibromomethane	U		0.0109	0.0293	25	08/23/2017 18:27	WG1012508
Chloroethane	U		0.0277	0.147	25	08/23/2017 18:27	WG1012508
Chloroform	U		0.00671	0.147	25	08/23/2017 18:27	WG1012508
Chloromethane	U		0.0110	0.0733	25	08/23/2017 18:27	WG1012508
2-Chlorotoluene	U		0.00882	0.0293	25	08/23/2017 18:27	WG1012508
4-Chlorotoluene	U		0.00703	0.0293	25	08/23/2017 18:27	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.0307	0.147	25	08/23/2017 18:27	WG1012508
1,2-Dibromoethane	U		0.0101	0.0293	25	08/23/2017 18:27	WG1012508
Dibromomethane	U		0.0112	0.0293	25	08/23/2017 18:27	WG1012508
1,2-Dichlorobenzene	U		0.00893	0.0293	25	08/23/2017 18:27	WG1012508
1,3-Dichlorobenzene	U		0.00701	0.0293	25	08/23/2017 18:27	WG1012508
1,4-Dichlorobenzene	U		0.00662	0.0293	25	08/23/2017 18:27	WG1012508
Dichlorodifluoromethane	U		0.0209	0.147	25	08/23/2017 18:27	WG1012508
1,1-Dichloroethane	U		0.00584	0.0293	25	08/23/2017 18:27	WG1012508
1,2-Dichloroethane	U		0.00776	0.0293	25	08/23/2017 18:27	WG1012508
1,1-Dichloroethene	U		0.00889	0.0293	25	08/23/2017 18:27	WG1012508
cis-1,2-Dichloroethene	0.0717		0.00689	0.0293	25	08/23/2017 18:27	WG1012508
trans-1,2-Dichloroethene	U		0.00774	0.0293	25	08/23/2017 18:27	WG1012508
1,2-Dichloropropane	U		0.0105	0.0293	25	08/23/2017 18:27	WG1012508
1,1-Dichloropropene	U		0.00928	0.0293	25	08/23/2017 18:27	WG1012508
1,3-Dichloropropane	U		0.00607	0.0293	25	08/23/2017 18:27	WG1012508
cis-1,3-Dichloropropene	U		0.00768	0.0293	25	08/23/2017 18:27	WG1012508
trans-1,3-Dichloropropene	U		0.00783	0.0293	25	08/23/2017 18:27	WG1012508
trans-1,4-Dichloro-2-butene	U		0.0227	0.0733	25	08/23/2017 18:27	WG1012508
2,2-Dichloropropane	U		0.00818	0.0293	25	08/23/2017 18:27	WG1012508
Di-isopropyl ether	U		0.00727	0.0293	25	08/23/2017 18:27	WG1012508
Ethylbenzene	U		0.00870	0.0293	25	08/23/2017 18:27	WG1012508
Hexachloro-1,3-butadiene	U		0.0100	0.0293	25	08/23/2017 18:27	WG1012508
2-Hexanone	U		0.0401	0.293	25	08/23/2017 18:27	WG1012508
n-Hexane	U		0.00850	0.293	25	08/23/2017 18:27	WG1012508



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.0741	0.293	25	08/23/2017 18:27	WG1012508
Isopropylbenzene	U		0.00713	0.0293	25	08/23/2017 18:27	WG1012508
p-Isopropyltoluene	U		0.00598	0.0293	25	08/23/2017 18:27	WG1012508
2-Butanone (MEK)	U		0.137	0.293	25	08/23/2017 18:27	WG1012508
Methylene Chloride	U		0.0293	0.147	25	08/23/2017 18:27	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.0551	0.293	25	08/23/2017 18:27	WG1012508
Methyl tert-butyl ether	0.0772		0.00621	0.0293	25	08/23/2017 18:27	WG1012508
Naphthalene	U		0.0293	0.147	25	08/23/2017 18:27	WG1012508
n-Propylbenzene	U		0.00604	0.0293	25	08/23/2017 18:27	WG1012508
Styrene	U		0.00686	0.0293	25	08/23/2017 18:27	WG1012508
1,1,1,2-Tetrachloroethane	U		0.00774	0.0293	25	08/23/2017 18:27	WG1012508
1,1,2,2-Tetrachloroethane	U		0.0107	0.0293	25	08/23/2017 18:27	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.0107	0.0293	25	08/23/2017 18:27	WG1012508
Tetrachloroethene	2.28		0.00809	0.0293	25	08/23/2017 18:27	WG1012508
Toluene	0.580		0.0127	0.147	25	08/23/2017 18:27	WG1012508
1,2,3-Trichlorobenzene	U		0.00897	0.0293	25	08/23/2017 18:27	WG1012508
1,2,4-Trichlorobenzene	U		0.0114	0.0293	25	08/23/2017 18:27	WG1012508
1,1,1-Trichloroethane	U		0.00838	0.0293	25	08/23/2017 18:27	WG1012508
1,1,2-Trichloroethane	U		0.00811	0.0293	25	08/23/2017 18:27	WG1012508
Trichloroethene	0.146		0.00818	0.0293	25	08/23/2017 18:27	WG1012508
Trichlorofluoromethane	U		0.0112	0.147	25	08/23/2017 18:27	WG1012508
1,2,3-Trichloropropane	U		0.0217	0.0733	25	08/23/2017 18:27	WG1012508
1,2,4-Trimethylbenzene	U		0.00619	0.0293	25	08/23/2017 18:27	WG1012508
1,2,3-Trimethylbenzene	U		0.00842	0.0293	25	08/23/2017 18:27	WG1012508
1,3,5-Trimethylbenzene	U		0.00780	0.0293	25	08/23/2017 18:27	WG1012508
Vinyl acetate	U		0.0701	0.293	25	08/23/2017 18:27	WG1012508
Vinyl chloride	U		0.00853	0.0293	25	08/23/2017 18:27	WG1012508
Xylenes, Total	U		0.0204	0.0879	25	08/23/2017 18:27	WG1012508
(S) Toluene-d8	104			80.0-120		08/23/2017 18:27	WG1012508
(S) Dibromofluoromethane	98.9			74.0-131		08/23/2017 18:27	WG1012508
(S) 4-Bromofluorobenzene	95.5			64.0-132		08/23/2017 18:27	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930317-01 WG1012508: No low level sodium bisulfite vials remaining. Reporting at the lowest possible dilution.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.8		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.0572	B J	0.0395	0.116	1	08/23/2017 17:40	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	99.1			77.0-120		08/23/2017 17:40	WG1012776

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0116	0.0582	1	08/23/2017 03:39	WG1012508
Acrylonitrile	U		0.00209	0.0116	1	08/23/2017 03:39	WG1012508
Benzene	U		0.000315	0.00116	1	08/23/2017 03:39	WG1012508
Bromobenzene	U		0.000331	0.00116	1	08/23/2017 03:39	WG1012508
Bromodichloromethane	U		0.000296	0.00116	1	08/23/2017 03:39	WG1012508
Bromochloromethane	U		0.000454	0.00582	1	08/23/2017 03:39	WG1012508
Bromoform	U		0.000494	0.00116	1	08/23/2017 03:39	WG1012508
Bromomethane	U		0.00156	0.00582	1	08/23/2017 03:39	WG1012508
n-Butylbenzene	U		0.000301	0.00116	1	08/23/2017 03:39	WG1012508
sec-Butylbenzene	U		0.000234	0.00116	1	08/23/2017 03:39	WG1012508
tert-Butylbenzene	U		0.000240	0.00116	1	08/23/2017 03:39	WG1012508
Carbon disulfide	U		0.000257	0.00116	1	08/23/2017 03:39	WG1012508
Carbon tetrachloride	U		0.000382	0.00116	1	08/23/2017 03:39	WG1012508
Chlorobenzene	U		0.000247	0.00116	1	08/23/2017 03:39	WG1012508
Chlorodibromomethane	U		0.000435	0.00116	1	08/23/2017 03:39	WG1012508
Chloroethane	U		0.00110	0.00582	1	08/23/2017 03:39	WG1012508
Chloroform	U		0.000267	0.00582	1	08/23/2017 03:39	WG1012508
Chloromethane	U		0.000437	0.00291	1	08/23/2017 03:39	WG1012508
2-Chlorotoluene	U		0.000351	0.00116	1	08/23/2017 03:39	WG1012508
4-Chlorotoluene	U		0.000280	0.00116	1	08/23/2017 03:39	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00122	0.00582	1	08/23/2017 03:39	WG1012508
1,2-Dibromoethane	U		0.000400	0.00116	1	08/23/2017 03:39	WG1012508
Dibromomethane	U		0.000445	0.00116	1	08/23/2017 03:39	WG1012508
1,2-Dichlorobenzene	U		0.000355	0.00116	1	08/23/2017 03:39	WG1012508
1,3-Dichlorobenzene	U		0.000278	0.00116	1	08/23/2017 03:39	WG1012508
1,4-Dichlorobenzene	U		0.000263	0.00116	1	08/23/2017 03:39	WG1012508
Dichlorodifluoromethane	U		0.000831	0.00582	1	08/23/2017 03:39	WG1012508
1,1-Dichloroethane	U		0.000232	0.00116	1	08/23/2017 03:39	WG1012508
1,2-Dichloroethane	U		0.000309	0.00116	1	08/23/2017 03:39	WG1012508
1,1-Dichloroethene	U		0.000353	0.00116	1	08/23/2017 03:39	WG1012508
cis-1,2-Dichloroethene	U		0.000274	0.00116	1	08/23/2017 03:39	WG1012508
trans-1,2-Dichloroethene	U		0.000308	0.00116	1	08/23/2017 03:39	WG1012508
1,2-Dichloropropane	U		0.000417	0.00116	1	08/23/2017 03:39	WG1012508
1,1-Dichloropropene	U		0.000369	0.00116	1	08/23/2017 03:39	WG1012508
1,3-Dichloropropane	U		0.000241	0.00116	1	08/23/2017 03:39	WG1012508
cis-1,3-Dichloropropene	U		0.000305	0.00116	1	08/23/2017 03:39	WG1012508
trans-1,3-Dichloropropene	U		0.000311	0.00116	1	08/23/2017 03:39	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000906	0.00291	1	08/23/2017 03:39	WG1012508
2,2-Dichloropropane	U		0.000325	0.00116	1	08/23/2017 03:39	WG1012508
Di-isopropyl ether	U		0.000289	0.00116	1	08/23/2017 03:39	WG1012508
Ethylbenzene	U		0.000346	0.00116	1	08/23/2017 03:39	WG1012508
Hexachloro-1,3-butadiene	U		0.000398	0.00116	1	08/23/2017 03:39	WG1012508
2-Hexanone	U		0.00160	0.0116	1	08/23/2017 03:39	WG1012508
n-Hexane	U		0.000338	0.0116	1	08/23/2017 03:39	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00295	0.0116	1	08/23/2017 03:39	WG1012508
Isopropylbenzene	U		0.000283	0.00116	1	08/23/2017 03:39	WG1012508
p-Isopropyltoluene	U		0.000238	0.00116	1	08/23/2017 03:39	WG1012508
2-Butanone (MEK)	U		0.00545	0.0116	1	08/23/2017 03:39	WG1012508
Methylene Chloride	U		0.00116	0.00582	1	08/23/2017 03:39	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00219	0.0116	1	08/23/2017 03:39	WG1012508
Methyl tert-butyl ether	U		0.000247	0.00116	1	08/23/2017 03:39	WG1012508
Naphthalene	U		0.00116	0.00582	1	08/23/2017 03:39	WG1012508
n-Propylbenzene	U		0.000240	0.00116	1	08/23/2017 03:39	WG1012508
Styrene	U		0.000273	0.00116	1	08/23/2017 03:39	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000308	0.00116	1	08/23/2017 03:39	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000425	0.00116	1	08/23/2017 03:39	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000425	0.00116	1	08/23/2017 03:39	WG1012508
Tetrachloroethene	0.00127		0.000322	0.00116	1	08/23/2017 03:39	WG1012508
Toluene	U		0.000506	0.00582	1	08/23/2017 03:39	WG1012508
1,2,3-Trichlorobenzene	U		0.000356	0.00116	1	08/23/2017 03:39	WG1012508
1,2,4-Trichlorobenzene	U		0.000452	0.00116	1	08/23/2017 03:39	WG1012508
1,1,1-Trichloroethane	U		0.000333	0.00116	1	08/23/2017 03:39	WG1012508
1,1,2-Trichloroethane	U		0.000323	0.00116	1	08/23/2017 03:39	WG1012508
Trichloroethene	U		0.000325	0.00116	1	08/23/2017 03:39	WG1012508
Trichlorofluoromethane	U		0.000445	0.00582	1	08/23/2017 03:39	WG1012508
1,2,3-Trichloropropane	U		0.000863	0.00291	1	08/23/2017 03:39	WG1012508
1,2,4-Trimethylbenzene	U		0.000246	0.00116	1	08/23/2017 03:39	WG1012508
1,2,3-Trimethylbenzene	U		0.000334	0.00116	1	08/23/2017 03:39	WG1012508
1,3,5-Trimethylbenzene	U		0.000310	0.00116	1	08/23/2017 03:39	WG1012508
Vinyl acetate	U		0.00278	0.0116	1	08/23/2017 03:39	WG1012508
Vinyl chloride	U		0.000339	0.00116	1	08/23/2017 03:39	WG1012508
Xylenes, Total	U		0.000813	0.00349	1	08/23/2017 03:39	WG1012508
(S) Toluene-d8	98.9			80.0-120		08/23/2017 03:39	WG1012508
(S) Dibromofluoromethane	99.6			74.0-131		08/23/2017 03:39	WG1012508
(S) 4-Bromofluorobenzene	98.3			64.0-132		08/23/2017 03:39	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/16/17 10:45

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.1		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.0849	B J	0.0408	0.120	1	08/23/2017 18:02	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	98.6			77.0-120		08/23/2017 18:02	WG1012776

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0120	0.0602	1	08/23/2017 03:59	WG1012508
Acrylonitrile	U		0.00216	0.0120	1	08/23/2017 03:59	WG1012508
Benzene	U		0.000325	0.00120	1	08/23/2017 03:59	WG1012508
Bromobenzene	U		0.000342	0.00120	1	08/23/2017 03:59	WG1012508
Bromodichloromethane	U		0.000306	0.00120	1	08/23/2017 03:59	WG1012508
Bromochloromethane	U		0.000470	0.00602	1	08/23/2017 03:59	WG1012508
Bromoform	U		0.000511	0.00120	1	08/23/2017 03:59	WG1012508
Bromomethane	U		0.00161	0.00602	1	08/23/2017 03:59	WG1012508
n-Butylbenzene	U		0.000311	0.00120	1	08/23/2017 03:59	WG1012508
sec-Butylbenzene	U		0.000242	0.00120	1	08/23/2017 03:59	WG1012508
tert-Butylbenzene	U		0.000248	0.00120	1	08/23/2017 03:59	WG1012508
Carbon disulfide	U		0.000266	0.00120	1	08/23/2017 03:59	WG1012508
Carbon tetrachloride	U		0.000395	0.00120	1	08/23/2017 03:59	WG1012508
Chlorobenzene	U		0.000255	0.00120	1	08/23/2017 03:59	WG1012508
Chlorodibromomethane	U		0.000449	0.00120	1	08/23/2017 03:59	WG1012508
Chloroethane	U		0.00114	0.00602	1	08/23/2017 03:59	WG1012508
Chloroform	U		0.000276	0.00602	1	08/23/2017 03:59	WG1012508
Chloromethane	U		0.000452	0.00301	1	08/23/2017 03:59	WG1012508
2-Chlorotoluene	U		0.000362	0.00120	1	08/23/2017 03:59	WG1012508
4-Chlorotoluene	U		0.000289	0.00120	1	08/23/2017 03:59	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00126	0.00602	1	08/23/2017 03:59	WG1012508
1,2-Dibromoethane	U		0.000413	0.00120	1	08/23/2017 03:59	WG1012508
Dibromomethane	U		0.000460	0.00120	1	08/23/2017 03:59	WG1012508
1,2-Dichlorobenzene	U		0.000367	0.00120	1	08/23/2017 03:59	WG1012508
1,3-Dichlorobenzene	U		0.000288	0.00120	1	08/23/2017 03:59	WG1012508
1,4-Dichlorobenzene	U		0.000272	0.00120	1	08/23/2017 03:59	WG1012508
Dichlorodifluoromethane	U		0.000858	0.00602	1	08/23/2017 03:59	WG1012508
1,1-Dichloroethane	U		0.000240	0.00120	1	08/23/2017 03:59	WG1012508
1,2-Dichloroethane	U		0.000319	0.00120	1	08/23/2017 03:59	WG1012508
1,1-Dichloroethene	U		0.000365	0.00120	1	08/23/2017 03:59	WG1012508
cis-1,2-Dichloroethene	U		0.000283	0.00120	1	08/23/2017 03:59	WG1012508
trans-1,2-Dichloroethene	U		0.000318	0.00120	1	08/23/2017 03:59	WG1012508
1,2-Dichloropropane	U		0.000431	0.00120	1	08/23/2017 03:59	WG1012508
1,1-Dichloropropene	U		0.000382	0.00120	1	08/23/2017 03:59	WG1012508
1,3-Dichloropropane	U		0.000249	0.00120	1	08/23/2017 03:59	WG1012508
cis-1,3-Dichloropropene	U		0.000315	0.00120	1	08/23/2017 03:59	WG1012508
trans-1,3-Dichloropropene	U		0.000321	0.00120	1	08/23/2017 03:59	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000937	0.00301	1	08/23/2017 03:59	WG1012508
2,2-Dichloropropane	U		0.000336	0.00120	1	08/23/2017 03:59	WG1012508
Di-isopropyl ether	U		0.000299	0.00120	1	08/23/2017 03:59	WG1012508
Ethylbenzene	U		0.000358	0.00120	1	08/23/2017 03:59	WG1012508
Hexachloro-1,3-butadiene	U		0.000412	0.00120	1	08/23/2017 03:59	WG1012508
2-Hexanone	U		0.00165	0.0120	1	08/23/2017 03:59	WG1012508
n-Hexane	U		0.000349	0.0120	1	08/23/2017 03:59	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00305	0.0120	1	08/23/2017 03:59	WG1012508
Isopropylbenzene	U		0.000293	0.00120	1	08/23/2017 03:59	WG1012508
p-Isopropyltoluene	U		0.000246	0.00120	1	08/23/2017 03:59	WG1012508
2-Butanone (MEK)	U		0.00563	0.0120	1	08/23/2017 03:59	WG1012508
Methylene Chloride	U		0.00120	0.00602	1	08/23/2017 03:59	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00226	0.0120	1	08/23/2017 03:59	WG1012508
Methyl tert-butyl ether	U		0.000255	0.00120	1	08/23/2017 03:59	WG1012508
Naphthalene	U		0.00120	0.00602	1	08/23/2017 03:59	WG1012508
n-Propylbenzene	U		0.000248	0.00120	1	08/23/2017 03:59	WG1012508
Styrene	U		0.000282	0.00120	1	08/23/2017 03:59	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000318	0.00120	1	08/23/2017 03:59	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000439	0.00120	1	08/23/2017 03:59	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000439	0.00120	1	08/23/2017 03:59	WG1012508
Tetrachloroethene	0.000345	J	0.000332	0.00120	1	08/23/2017 03:59	WG1012508
Toluene	U		0.000523	0.00602	1	08/23/2017 03:59	WG1012508
1,2,3-Trichlorobenzene	U		0.000368	0.00120	1	08/23/2017 03:59	WG1012508
1,2,4-Trichlorobenzene	U		0.000467	0.00120	1	08/23/2017 03:59	WG1012508
1,1,1-Trichloroethane	U		0.000344	0.00120	1	08/23/2017 03:59	WG1012508
1,1,2-Trichloroethane	U		0.000334	0.00120	1	08/23/2017 03:59	WG1012508
Trichloroethene	U		0.000336	0.00120	1	08/23/2017 03:59	WG1012508
Trichlorofluoromethane	U		0.000460	0.00602	1	08/23/2017 03:59	WG1012508
1,2,3-Trichloropropane	U		0.000892	0.00301	1	08/23/2017 03:59	WG1012508
1,2,4-Trimethylbenzene	U		0.000254	0.00120	1	08/23/2017 03:59	WG1012508
1,2,3-Trimethylbenzene	U		0.000346	0.00120	1	08/23/2017 03:59	WG1012508
1,3,5-Trimethylbenzene	U		0.000320	0.00120	1	08/23/2017 03:59	WG1012508
Vinyl acetate	U		0.00288	0.0120	1	08/23/2017 03:59	WG1012508
Vinyl chloride	U		0.000350	0.00120	1	08/23/2017 03:59	WG1012508
Xylenes, Total	U		0.000840	0.00361	1	08/23/2017 03:59	WG1012508
(S) Toluene-d8	98.0			80.0-120		08/23/2017 03:59	WG1012508
(S) Dibromofluoromethane	101			74.0-131		08/23/2017 03:59	WG1012508
(S) 4-Bromofluorobenzene	96.1			64.0-132		08/23/2017 03:59	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/16/17 11:45

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.0		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.0964	B J	0.0368	0.109	1	08/23/2017 18:23	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-120		08/23/2017 18:23	WG1012776

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.272	1.36	25	08/23/2017 18:48	WG1012508
Acrylonitrile	U		0.0487	0.272	25	08/23/2017 18:48	WG1012508
Benzene	U		0.00734	0.0272	25	08/23/2017 18:48	WG1012508
Bromobenzene	U		0.00772	0.0272	25	08/23/2017 18:48	WG1012508
Bromodichloromethane	U		0.00690	0.0272	25	08/23/2017 18:48	WG1012508
Bromochloromethane	U		0.0106	0.136	25	08/23/2017 18:48	WG1012508
Bromoform	U		0.0115	0.0272	25	08/23/2017 18:48	WG1012508
Bromomethane	U		0.0364	0.136	25	08/23/2017 18:48	WG1012508
n-Butylbenzene	U		0.00701	0.0272	25	08/23/2017 18:48	WG1012508
sec-Butylbenzene	U		0.00546	0.0272	25	08/23/2017 18:48	WG1012508
tert-Butylbenzene	U		0.00560	0.0272	25	08/23/2017 18:48	WG1012508
Carbon disulfide	U		0.00600	0.0272	25	08/23/2017 18:48	WG1012508
Carbon tetrachloride	U		0.00891	0.0272	25	08/23/2017 18:48	WG1012508
Chlorobenzene	U		0.00576	0.0272	25	08/23/2017 18:48	WG1012508
Chlorodibromomethane	U		0.0101	0.0272	25	08/23/2017 18:48	WG1012508
Chloroethane	U		0.0256	0.136	25	08/23/2017 18:48	WG1012508
Chloroform	U		0.00622	0.136	25	08/23/2017 18:48	WG1012508
Chloromethane	U		0.0102	0.0679	25	08/23/2017 18:48	WG1012508
2-Chlorotoluene	U		0.00817	0.0272	25	08/23/2017 18:48	WG1012508
4-Chlorotoluene	U		0.00652	0.0272	25	08/23/2017 18:48	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.0285	0.136	25	08/23/2017 18:48	WG1012508
1,2-Dibromoethane	U		0.00933	0.0272	25	08/23/2017 18:48	WG1012508
Dibromomethane	U		0.0104	0.0272	25	08/23/2017 18:48	WG1012508
1,2-Dichlorobenzene	U		0.00828	0.0272	25	08/23/2017 18:48	WG1012508
1,3-Dichlorobenzene	U		0.00650	0.0272	25	08/23/2017 18:48	WG1012508
1,4-Dichlorobenzene	U		0.00614	0.0272	25	08/23/2017 18:48	WG1012508
Dichlorodifluoromethane	U		0.0193	0.136	25	08/23/2017 18:48	WG1012508
1,1-Dichloroethane	U		0.00541	0.0272	25	08/23/2017 18:48	WG1012508
1,2-Dichloroethane	U		0.00719	0.0272	25	08/23/2017 18:48	WG1012508
1,1-Dichloroethene	U		0.00824	0.0272	25	08/23/2017 18:48	WG1012508
cis-1,2-Dichloroethene	U		0.00639	0.0272	25	08/23/2017 18:48	WG1012508
trans-1,2-Dichloroethene	U		0.00717	0.0272	25	08/23/2017 18:48	WG1012508
1,2-Dichloropropane	U		0.00973	0.0272	25	08/23/2017 18:48	WG1012508
1,1-Dichloropropene	U		0.00861	0.0272	25	08/23/2017 18:48	WG1012508
1,3-Dichloropropane	U		0.00563	0.0272	25	08/23/2017 18:48	WG1012508
cis-1,3-Dichloropropene	U		0.00712	0.0272	25	08/23/2017 18:48	WG1012508
trans-1,3-Dichloropropene	U		0.00726	0.0272	25	08/23/2017 18:48	WG1012508
trans-1,4-Dichloro-2-butene	U		0.0211	0.0679	25	08/23/2017 18:48	WG1012508
2,2-Dichloropropane	U		0.00759	0.0272	25	08/23/2017 18:48	WG1012508
Di-isopropyl ether	U		0.00674	0.0272	25	08/23/2017 18:48	WG1012508
Ethylbenzene	U		0.00806	0.0272	25	08/23/2017 18:48	WG1012508
Hexachloro-1,3-butadiene	U		0.00929	0.0272	25	08/23/2017 18:48	WG1012508
2-Hexanone	U		0.0372	0.272	25	08/23/2017 18:48	WG1012508
n-Hexane	U		0.00788	0.272	25	08/23/2017 18:48	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/16/17 11:45

L930317

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.0687	0.272	25	08/23/2017 18:48	WG1012508
Isopropylbenzene	U		0.00661	0.0272	25	08/23/2017 18:48	WG1012508
p-Isopropyltoluene	U		0.00554	0.0272	25	08/23/2017 18:48	WG1012508
2-Butanone (MEK)	U		0.127	0.272	25	08/23/2017 18:48	WG1012508
Methylene Chloride	U		0.0272	0.136	25	08/23/2017 18:48	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.0511	0.272	25	08/23/2017 18:48	WG1012508
Methyl tert-butyl ether	0.0760		0.00576	0.0272	25	08/23/2017 18:48	WG1012508
Naphthalene	U		0.0272	0.136	25	08/23/2017 18:48	WG1012508
n-Propylbenzene	U		0.00560	0.0272	25	08/23/2017 18:48	WG1012508
Styrene	U		0.00636	0.0272	25	08/23/2017 18:48	WG1012508
1,1,1,2-Tetrachloroethane	U		0.00717	0.0272	25	08/23/2017 18:48	WG1012508
1,1,2,2-Tetrachloroethane	U		0.00991	0.0272	25	08/23/2017 18:48	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.00991	0.0272	25	08/23/2017 18:48	WG1012508
Tetrachloroethene	U		0.00750	0.0272	25	08/23/2017 18:48	WG1012508
Toluene	U		0.0117	0.136	25	08/23/2017 18:48	WG1012508
1,2,3-Trichlorobenzene	U		0.00831	0.0272	25	08/23/2017 18:48	WG1012508
1,2,4-Trichlorobenzene	U		0.0105	0.0272	25	08/23/2017 18:48	WG1012508
1,1,1-Trichloroethane	U		0.00777	0.0272	25	08/23/2017 18:48	WG1012508
1,1,2-Trichloroethane	U		0.00752	0.0272	25	08/23/2017 18:48	WG1012508
Trichloroethene	U		0.00759	0.0272	25	08/23/2017 18:48	WG1012508
Trichlorofluoromethane	U		0.0104	0.136	25	08/23/2017 18:48	WG1012508
1,2,3-Trichloropropane	U		0.0201	0.0679	25	08/23/2017 18:48	WG1012508
1,2,4-Trimethylbenzene	U		0.00574	0.0272	25	08/23/2017 18:48	WG1012508
1,2,3-Trimethylbenzene	U		0.00780	0.0272	25	08/23/2017 18:48	WG1012508
1,3,5-Trimethylbenzene	U		0.00723	0.0272	25	08/23/2017 18:48	WG1012508
Vinyl acetate	U		0.0650	0.272	25	08/23/2017 18:48	WG1012508
Vinyl chloride	U		0.00791	0.0272	25	08/23/2017 18:48	WG1012508
Xylenes, Total	U		0.0189	0.0815	25	08/23/2017 18:48	WG1012508
(S) Toluene-d8	105			80.0-120		08/23/2017 18:48	WG1012508
(S) Dibromofluoromethane	98.1			74.0-131		08/23/2017 18:48	WG1012508
(S) 4-Bromofluorobenzene	100			64.0-132		08/23/2017 18:48	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930317-04 WG1012508: No low level sodium bisulfite vials remaining. Reporting at the lowest possible dilution.



Collected date/time: 08/16/17 14:20

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.9		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.109	B J	0.0404	0.119	1	08/23/2017 18:44	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	98.1			77.0-120		08/23/2017 18:44	WG1012776

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0119	0.0596	1	08/23/2017 04:41	WG1012508
Acrylonitrile	U		0.00213	0.0119	1	08/23/2017 04:41	WG1012508
Benzene	U		0.000322	0.00119	1	08/23/2017 04:41	WG1012508
Bromobenzene	U		0.000338	0.00119	1	08/23/2017 04:41	WG1012508
Bromodichloromethane	U		0.000303	0.00119	1	08/23/2017 04:41	WG1012508
Bromochloromethane	U		0.000465	0.00596	1	08/23/2017 04:41	WG1012508
Bromoform	U		0.000505	0.00119	1	08/23/2017 04:41	WG1012508
Bromomethane	U		0.00160	0.00596	1	08/23/2017 04:41	WG1012508
n-Butylbenzene	U		0.000307	0.00119	1	08/23/2017 04:41	WG1012508
sec-Butylbenzene	U		0.000239	0.00119	1	08/23/2017 04:41	WG1012508
tert-Butylbenzene	U		0.000245	0.00119	1	08/23/2017 04:41	WG1012508
Carbon disulfide	U		0.000263	0.00119	1	08/23/2017 04:41	WG1012508
Carbon tetrachloride	U		0.000391	0.00119	1	08/23/2017 04:41	WG1012508
Chlorobenzene	U		0.000253	0.00119	1	08/23/2017 04:41	WG1012508
Chlorodibromomethane	U		0.000444	0.00119	1	08/23/2017 04:41	WG1012508
Chloroethane	U		0.00113	0.00596	1	08/23/2017 04:41	WG1012508
Chloroform	U		0.000273	0.00596	1	08/23/2017 04:41	WG1012508
Chloromethane	U		0.000447	0.00298	1	08/23/2017 04:41	WG1012508
2-Chlorotoluene	U		0.000359	0.00119	1	08/23/2017 04:41	WG1012508
4-Chlorotoluene	U		0.000286	0.00119	1	08/23/2017 04:41	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00125	0.00596	1	08/23/2017 04:41	WG1012508
1,2-Dibromoethane	U		0.000409	0.00119	1	08/23/2017 04:41	WG1012508
Dibromomethane	U		0.000455	0.00119	1	08/23/2017 04:41	WG1012508
1,2-Dichlorobenzene	U		0.000363	0.00119	1	08/23/2017 04:41	WG1012508
1,3-Dichlorobenzene	U		0.000285	0.00119	1	08/23/2017 04:41	WG1012508
1,4-Dichlorobenzene	U		0.000269	0.00119	1	08/23/2017 04:41	WG1012508
Dichlorodifluoromethane	U		0.000849	0.00596	1	08/23/2017 04:41	WG1012508
1,1-Dichloroethane	U		0.000237	0.00119	1	08/23/2017 04:41	WG1012508
1,2-Dichloroethane	U		0.000316	0.00119	1	08/23/2017 04:41	WG1012508
1,1-Dichloroethene	U		0.000361	0.00119	1	08/23/2017 04:41	WG1012508
cis-1,2-Dichloroethene	0.000888	J	0.000280	0.00119	1	08/23/2017 04:41	WG1012508
trans-1,2-Dichloroethene	U		0.000314	0.00119	1	08/23/2017 04:41	WG1012508
1,2-Dichloropropane	U		0.000426	0.00119	1	08/23/2017 04:41	WG1012508
1,1-Dichloropropene	U		0.000378	0.00119	1	08/23/2017 04:41	WG1012508
1,3-Dichloropropane	U		0.000247	0.00119	1	08/23/2017 04:41	WG1012508
cis-1,3-Dichloropropene	U		0.000312	0.00119	1	08/23/2017 04:41	WG1012508
trans-1,3-Dichloropropene	U		0.000318	0.00119	1	08/23/2017 04:41	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000927	0.00298	1	08/23/2017 04:41	WG1012508
2,2-Dichloropropane	U		0.000332	0.00119	1	08/23/2017 04:41	WG1012508
Di-isopropyl ether	U		0.000295	0.00119	1	08/23/2017 04:41	WG1012508
Ethylbenzene	U		0.000354	0.00119	1	08/23/2017 04:41	WG1012508
Hexachloro-1,3-butadiene	U		0.000407	0.00119	1	08/23/2017 04:41	WG1012508
2-Hexanone	U		0.00163	0.0119	1	08/23/2017 04:41	WG1012508
n-Hexane	0.00262	J	0.000345	0.0119	1	08/23/2017 04:41	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/16/17 14:20

L930317

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00301	0.0119	1	08/23/2017 04:41	WG1012508
Isopropylbenzene	U		0.000289	0.00119	1	08/23/2017 04:41	WG1012508
p-Isopropyltoluene	U		0.000243	0.00119	1	08/23/2017 04:41	WG1012508
2-Butanone (MEK)	U		0.00558	0.0119	1	08/23/2017 04:41	WG1012508
Methylene Chloride	U		0.00119	0.00596	1	08/23/2017 04:41	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00224	0.0119	1	08/23/2017 04:41	WG1012508
Methyl tert-butyl ether	U		0.000253	0.00119	1	08/23/2017 04:41	WG1012508
Naphthalene	U		0.00119	0.00596	1	08/23/2017 04:41	WG1012508
n-Propylbenzene	U		0.000245	0.00119	1	08/23/2017 04:41	WG1012508
Styrene	U		0.000279	0.00119	1	08/23/2017 04:41	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000314	0.00119	1	08/23/2017 04:41	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000435	0.00119	1	08/23/2017 04:41	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000435	0.00119	1	08/23/2017 04:41	WG1012508
Tetrachloroethene	0.0119		0.000329	0.00119	1	08/23/2017 04:41	WG1012508
Toluene	U		0.000517	0.00596	1	08/23/2017 04:41	WG1012508
1,2,3-Trichlorobenzene	U		0.000365	0.00119	1	08/23/2017 04:41	WG1012508
1,2,4-Trichlorobenzene	U		0.000462	0.00119	1	08/23/2017 04:41	WG1012508
1,1,1-Trichloroethane	U		0.000341	0.00119	1	08/23/2017 04:41	WG1012508
1,1,2-Trichloroethane	U		0.000330	0.00119	1	08/23/2017 04:41	WG1012508
Trichloroethene	0.00354		0.000332	0.00119	1	08/23/2017 04:41	WG1012508
Trichlorofluoromethane	U		0.000455	0.00596	1	08/23/2017 04:41	WG1012508
1,2,3-Trichloropropane	U		0.000883	0.00298	1	08/23/2017 04:41	WG1012508
1,2,4-Trimethylbenzene	U		0.000251	0.00119	1	08/23/2017 04:41	WG1012508
1,2,3-Trimethylbenzene	U		0.000342	0.00119	1	08/23/2017 04:41	WG1012508
1,3,5-Trimethylbenzene	U		0.000317	0.00119	1	08/23/2017 04:41	WG1012508
Vinyl acetate	U		0.00285	0.0119	1	08/23/2017 04:41	WG1012508
Vinyl chloride	U		0.000347	0.00119	1	08/23/2017 04:41	WG1012508
Xylenes, Total	U		0.000832	0.00357	1	08/23/2017 04:41	WG1012508
(S) Toluene-d8	96.9			80.0-120		08/23/2017 04:41	WG1012508
(S) Dibromofluoromethane	101			74.0-131		08/23/2017 04:41	WG1012508
(S) 4-Bromofluorobenzene	97.4			64.0-132		08/23/2017 04:41	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/16/17 15:00

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.3		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	15.3	<u>B</u>	0.961	2.83	25	08/24/2017 13:28	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	97.8			77.0-120		08/24/2017 13:28	WG1012776

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0172	<u>J</u>	0.0113	0.0566	1	08/23/2017 05:01	WG1012508
Acrylonitrile	U		0.00203	0.0113	1	08/23/2017 05:01	WG1012508
Benzene	0.00369		0.000306	0.00113	1	08/23/2017 05:01	WG1012508
Bromobenzene	U		0.000322	0.00113	1	08/23/2017 05:01	WG1012508
Bromodichloromethane	U		0.000288	0.00113	1	08/23/2017 05:01	WG1012508
Bromochloromethane	U		0.000442	0.00566	1	08/23/2017 05:01	WG1012508
Bromoform	U		0.000480	0.00113	1	08/23/2017 05:01	WG1012508
Bromomethane	U		0.00152	0.00566	1	08/23/2017 05:01	WG1012508
n-Butylbenzene	0.000535	<u>J</u>	0.000292	0.00113	1	08/23/2017 05:01	WG1012508
sec-Butylbenzene	U		0.000228	0.00113	1	08/23/2017 05:01	WG1012508
tert-Butylbenzene	U		0.000233	0.00113	1	08/23/2017 05:01	WG1012508
Carbon disulfide	U		0.000250	0.00113	1	08/23/2017 05:01	WG1012508
Carbon tetrachloride	U		0.000372	0.00113	1	08/23/2017 05:01	WG1012508
Chlorobenzene	U		0.000240	0.00113	1	08/23/2017 05:01	WG1012508
Chlorodibromomethane	U		0.000423	0.00113	1	08/23/2017 05:01	WG1012508
Chloroethane	U		0.00107	0.00566	1	08/23/2017 05:01	WG1012508
Chloroform	U		0.000259	0.00566	1	08/23/2017 05:01	WG1012508
Chloromethane	U		0.000425	0.00283	1	08/23/2017 05:01	WG1012508
2-Chlorotoluene	U		0.000341	0.00113	1	08/23/2017 05:01	WG1012508
4-Chlorotoluene	U		0.000272	0.00113	1	08/23/2017 05:01	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00119	0.00566	1	08/23/2017 05:01	WG1012508
1,2-Dibromoethane	U		0.000389	0.00113	1	08/23/2017 05:01	WG1012508
Dibromomethane	U		0.000433	0.00113	1	08/23/2017 05:01	WG1012508
1,2-Dichlorobenzene	U		0.000346	0.00113	1	08/23/2017 05:01	WG1012508
1,3-Dichlorobenzene	U		0.000271	0.00113	1	08/23/2017 05:01	WG1012508
1,4-Dichlorobenzene	U		0.000256	0.00113	1	08/23/2017 05:01	WG1012508
Dichlorodifluoromethane	U		0.000808	0.00566	1	08/23/2017 05:01	WG1012508
1,1-Dichloroethane	U		0.000225	0.00113	1	08/23/2017 05:01	WG1012508
1,2-Dichloroethane	U		0.000300	0.00113	1	08/23/2017 05:01	WG1012508
1,1-Dichloroethene	U		0.000343	0.00113	1	08/23/2017 05:01	WG1012508
cis-1,2-Dichloroethene	0.000836	<u>J</u>	0.000266	0.00113	1	08/23/2017 05:01	WG1012508
trans-1,2-Dichloroethene	U		0.000299	0.00113	1	08/23/2017 05:01	WG1012508
1,2-Dichloropropane	U		0.000406	0.00113	1	08/23/2017 05:01	WG1012508
1,1-Dichloropropene	U		0.000359	0.00113	1	08/23/2017 05:01	WG1012508
1,3-Dichloropropane	U		0.000234	0.00113	1	08/23/2017 05:01	WG1012508
cis-1,3-Dichloropropene	U		0.000297	0.00113	1	08/23/2017 05:01	WG1012508
trans-1,3-Dichloropropene	U		0.000302	0.00113	1	08/23/2017 05:01	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000881	0.00283	1	08/23/2017 05:01	WG1012508
2,2-Dichloropropane	U		0.000316	0.00113	1	08/23/2017 05:01	WG1012508
Di-isopropyl ether	U		0.000281	0.00113	1	08/23/2017 05:01	WG1012508
Ethylbenzene	0.00179		0.000336	0.00113	1	08/23/2017 05:01	WG1012508
Hexachloro-1,3-butadiene	U		0.000387	0.00113	1	08/23/2017 05:01	WG1012508
2-Hexanone	U		0.00155	0.0113	1	08/23/2017 05:01	WG1012508
n-Hexane	0.100		0.000329	0.0113	1	08/23/2017 05:01	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/16/17 15:00

L930317

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00287	0.0113	1	08/23/2017 05:01	WG1012508
Isopropylbenzene	U		0.000275	0.00113	1	08/23/2017 05:01	WG1012508
p-Isopropyltoluene	U		0.000231	0.00113	1	08/23/2017 05:01	WG1012508
2-Butanone (MEK)	0.0156		0.00530	0.0113	1	08/23/2017 05:01	WG1012508
Methylene Chloride	U		0.00113	0.00566	1	08/23/2017 05:01	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00213	0.0113	1	08/23/2017 05:01	WG1012508
Methyl tert-butyl ether	U		0.000240	0.00113	1	08/23/2017 05:01	WG1012508
Naphthalene	U		0.00113	0.00566	1	08/23/2017 05:01	WG1012508
n-Propylbenzene	0.000915	U	0.000233	0.00113	1	08/23/2017 05:01	WG1012508
Styrene	0.000429	U	0.000265	0.00113	1	08/23/2017 05:01	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000299	0.00113	1	08/23/2017 05:01	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000413	0.00113	1	08/23/2017 05:01	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000413	0.00113	1	08/23/2017 05:01	WG1012508
Tetrachloroethene	0.0107		0.000313	0.00113	1	08/23/2017 05:01	WG1012508
Toluene	0.0119		0.000492	0.00566	1	08/23/2017 05:01	WG1012508
1,2,3-Trichlorobenzene	U		0.000347	0.00113	1	08/23/2017 05:01	WG1012508
1,2,4-Trichlorobenzene	U		0.000440	0.00113	1	08/23/2017 05:01	WG1012508
1,1,1-Trichloroethane	U		0.000324	0.00113	1	08/23/2017 05:01	WG1012508
1,1,2-Trichloroethane	U		0.000314	0.00113	1	08/23/2017 05:01	WG1012508
Trichloroethene	0.000965	U	0.000316	0.00113	1	08/23/2017 05:01	WG1012508
Trichlorofluoromethane	U		0.000433	0.00566	1	08/23/2017 05:01	WG1012508
1,2,3-Trichloropropane	U		0.000839	0.00283	1	08/23/2017 05:01	WG1012508
1,2,4-Trimethylbenzene	0.000845	U	0.000239	0.00113	1	08/23/2017 05:01	WG1012508
1,2,3-Trimethylbenzene	U		0.000325	0.00113	1	08/23/2017 05:01	WG1012508
1,3,5-Trimethylbenzene	U		0.000301	0.00113	1	08/23/2017 05:01	WG1012508
Vinyl acetate	U		0.00271	0.0113	1	08/23/2017 05:01	WG1012508
Vinyl chloride	U		0.000330	0.00113	1	08/23/2017 05:01	WG1012508
Xylenes, Total	0.00392		0.000791	0.00340	1	08/23/2017 05:01	WG1012508
(S) Toluene-d8	101			80.0-120		08/23/2017 05:01	WG1012508
(S) Dibromofluoromethane	98.8			74.0-131		08/23/2017 05:01	WG1012508
(S) 4-Bromofluorobenzene	99.5			64.0-132		08/23/2017 05:01	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	2210		31.6	100	1	08/23/2017 04:12	WG1012440
(S) a,a,a-Trifluorotoluene(FID)	113			77.0-122		08/23/2017 04:12	WG1012440

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	32.2	J	5.25	125	5	08/19/2017 13:35	WG1011540
Acrylonitrile	U		4.36	25.0	5	08/19/2017 13:35	WG1011540
Benzene	64.3		0.448	2.50	5	08/19/2017 13:35	WG1011540
Bromobenzene	U		0.665	2.50	5	08/19/2017 13:35	WG1011540
Bromodichloromethane	U		0.400	2.50	5	08/19/2017 13:35	WG1011540
Bromochloromethane	U		0.725	2.50	5	08/19/2017 13:35	WG1011540
Bromoform	U		0.930	2.50	5	08/19/2017 13:35	WG1011540
Bromomethane	U		0.785	12.5	5	08/19/2017 13:35	WG1011540
n-Butylbenzene	U		0.715	2.50	5	08/19/2017 13:35	WG1011540
sec-Butylbenzene	U		0.670	2.50	5	08/19/2017 13:35	WG1011540
tert-Butylbenzene	U		0.915	2.50	5	08/19/2017 13:35	WG1011540
Carbon disulfide	U		0.505	2.50	5	08/19/2017 13:35	WG1011540
Carbon tetrachloride	U		0.795	2.50	5	08/19/2017 13:35	WG1011540
Chlorobenzene	U		0.700	2.50	5	08/19/2017 13:35	WG1011540
Chlorodibromomethane	U		0.640	2.50	5	08/19/2017 13:35	WG1011540
Chloroethane	1.81	J	0.705	12.5	5	08/19/2017 13:35	WG1011540
Chloroform	U		0.430	2.50	5	08/19/2017 13:35	WG1011540
Chloromethane	55.9		0.765	6.25	5	08/19/2017 13:35	WG1011540
2-Chlorotoluene	U		0.555	2.50	5	08/19/2017 13:35	WG1011540
4-Chlorotoluene	U		0.486	2.50	5	08/19/2017 13:35	WG1011540
1,2-Dibromo-3-Chloropropane	U		1.62	12.5	5	08/19/2017 13:35	WG1011540
1,2-Dibromoethane	U		0.965	2.50	5	08/19/2017 13:35	WG1011540
Dibromomethane	U		0.585	2.50	5	08/19/2017 13:35	WG1011540
1,2-Dichlorobenzene	U		0.505	2.50	5	08/19/2017 13:35	WG1011540
1,3-Dichlorobenzene	U		0.650	2.50	5	08/19/2017 13:35	WG1011540
1,4-Dichlorobenzene	U		0.605	2.50	5	08/19/2017 13:35	WG1011540
Dichlorodifluoromethane	U		0.635	12.5	5	08/19/2017 13:35	WG1011540
1,1-Dichloroethane	U		0.570	2.50	5	08/19/2017 13:35	WG1011540
1,2-Dichloroethane	U		0.540	2.50	5	08/19/2017 13:35	WG1011540
1,1-Dichloroethene	U		0.940	2.50	5	08/19/2017 13:35	WG1011540
cis-1,2-Dichloroethene	22.2		0.466	2.50	5	08/19/2017 13:35	WG1011540
trans-1,2-Dichloroethene	U		0.760	2.50	5	08/19/2017 13:35	WG1011540
1,2-Dichloropropane	U		0.950	2.50	5	08/19/2017 13:35	WG1011540
1,1-Dichloropropene	U		0.640	2.50	5	08/19/2017 13:35	WG1011540
1,3-Dichloropropane	U		0.735	5.00	5	08/19/2017 13:35	WG1011540
cis-1,3-Dichloropropene	U		0.488	2.50	5	08/19/2017 13:35	WG1011540
trans-1,3-Dichloropropene	U		1.11	2.50	5	08/19/2017 13:35	WG1011540
trans-1,4-Dichloro-2-butene	U		1.28	25.0	5	08/19/2017 13:35	WG1011540
2,2-Dichloropropane	U		0.464	2.50	5	08/19/2017 13:35	WG1011540
Di-isopropyl ether	U		0.462	2.50	5	08/19/2017 13:35	WG1011540
Ethylbenzene	1.44	J	0.790	2.50	5	08/19/2017 13:35	WG1011540
Hexachloro-1,3-butadiene	U		0.785	5.00	5	08/19/2017 13:35	WG1011540
2-Hexanone	18.6	J	3.78	25.0	5	08/19/2017 13:35	WG1011540
n-Hexane	2.91	J	1.52	25.0	5	08/19/2017 13:35	WG1011540
Iodomethane	U		1.88	50.0	5	08/19/2017 13:35	WG1011540
Isopropylbenzene	U		0.630	2.50	5	08/19/2017 13:35	WG1011540
p-Isopropyltoluene	U		0.690	2.50	5	08/19/2017 13:35	WG1011540
2-Butanone (MEK)	13.6	J	6.40	25.0	5	08/19/2017 13:35	WG1011540



Collected date/time: 08/15/17 17:05

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		5.35	12.5	5	08/19/2017 13:35	WG1011540
4-Methyl-2-pentanone (MIBK)	U		4.12	25.0	5	08/19/2017 13:35	WG1011540
Methyl tert-butyl ether	U		0.510	2.50	5	08/19/2017 13:35	WG1011540
Naphthalene	2.88	<u>BJ</u>	0.870	12.5	5	08/19/2017 13:35	WG1011540
n-Propylbenzene	U		0.810	2.50	5	08/19/2017 13:35	WG1011540
Styrene	U		0.585	2.50	5	08/19/2017 13:35	WG1011540
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	08/19/2017 13:35	WG1011540
1,1,2,2-Tetrachloroethane	U		0.650	2.50	5	08/19/2017 13:35	WG1011540
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	08/19/2017 13:35	WG1011540
Tetrachloroethene	413		0.995	2.50	5	08/19/2017 13:35	WG1011540
Toluene	711		2.06	2.50	5	08/19/2017 13:35	WG1011540
1,2,3-Trichlorobenzene	U		0.820	2.50	5	08/19/2017 13:35	WG1011540
1,2,4-Trichlorobenzene	U		1.78	2.50	5	08/19/2017 13:35	WG1011540
1,1,1-Trichloroethane	U		0.470	2.50	5	08/19/2017 13:35	WG1011540
1,1,2-Trichloroethane	U		0.930	2.50	5	08/19/2017 13:35	WG1011540
Trichloroethene	34.4		0.765	2.50	5	08/19/2017 13:35	WG1011540
Trichlorofluoromethane	U		0.650	12.5	5	08/19/2017 13:35	WG1011540
1,2,3-Trichloropropane	U		1.24	12.5	5	08/19/2017 13:35	WG1011540
1,2,4-Trimethylbenzene	0.746	<u>BJ</u>	0.615	2.50	5	08/19/2017 13:35	WG1011540
1,2,3-Trimethylbenzene	U		0.370	2.50	5	08/19/2017 13:35	WG1011540
1,3,5-Trimethylbenzene	U		0.620	2.50	5	08/19/2017 13:35	WG1011540
Vinyl acetate	U		3.22	25.0	5	08/19/2017 13:35	WG1011540
Vinyl chloride	1.56	<u>IJ</u>	0.590	2.50	5	08/19/2017 13:35	WG1011540
Xylenes, Total	2.92	<u>IJ</u>	1.58	7.50	5	08/19/2017 13:35	WG1011540
(S) Toluene-d8	109			80.0-120		08/19/2017 13:35	WG1011540
(S) Dibromofluoromethane	96.0			76.0-123		08/19/2017 13:35	WG1011540
(S) 4-Bromofluorobenzene	107			80.0-120		08/19/2017 13:35	WG1011540

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 03/27/17 00:00

L930317

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/22/2017 21:07	WG1012440
(S) a,a,a-Trifluorotoluene(FID)	97.8			77.0-122		08/22/2017 21:07	WG1012440

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		1.05	25.0	1	08/19/2017 11:36	WG1011540
Acrylonitrile	U		0.873	5.00	1	08/19/2017 11:36	WG1011540
Benzene	U		0.0896	0.500	1	08/19/2017 11:36	WG1011540
Bromobenzene	U		0.133	0.500	1	08/19/2017 11:36	WG1011540
Bromodichloromethane	U		0.0800	0.500	1	08/19/2017 11:36	WG1011540
Bromochloromethane	U		0.145	0.500	1	08/19/2017 11:36	WG1011540
Bromoform	U		0.186	0.500	1	08/19/2017 11:36	WG1011540
Bromomethane	U		0.157	2.50	1	08/19/2017 11:36	WG1011540
n-Butylbenzene	U		0.143	0.500	1	08/19/2017 11:36	WG1011540
sec-Butylbenzene	U		0.134	0.500	1	08/19/2017 11:36	WG1011540
tert-Butylbenzene	U		0.183	0.500	1	08/19/2017 11:36	WG1011540
Carbon disulfide	U		0.101	0.500	1	08/19/2017 11:36	WG1011540
Carbon tetrachloride	U		0.159	0.500	1	08/19/2017 11:36	WG1011540
Chlorobenzene	U		0.140	0.500	1	08/19/2017 11:36	WG1011540
Chlorodibromomethane	U		0.128	0.500	1	08/19/2017 11:36	WG1011540
Chloroethane	U		0.141	2.50	1	08/19/2017 11:36	WG1011540
Chloroform	U		0.0860	0.500	1	08/19/2017 11:36	WG1011540
Chloromethane	U		0.153	1.25	1	08/19/2017 11:36	WG1011540
2-Chlorotoluene	U		0.111	0.500	1	08/19/2017 11:36	WG1011540
4-Chlorotoluene	U		0.0972	0.500	1	08/19/2017 11:36	WG1011540
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/19/2017 11:36	WG1011540
1,2-Dibromoethane	U		0.193	0.500	1	08/19/2017 11:36	WG1011540
Dibromomethane	U		0.117	0.500	1	08/19/2017 11:36	WG1011540
1,2-Dichlorobenzene	U		0.101	0.500	1	08/19/2017 11:36	WG1011540
1,3-Dichlorobenzene	U		0.130	0.500	1	08/19/2017 11:36	WG1011540
1,4-Dichlorobenzene	U		0.121	0.500	1	08/19/2017 11:36	WG1011540
Dichlorodifluoromethane	U		0.127	2.50	1	08/19/2017 11:36	WG1011540
1,1-Dichloroethane	U		0.114	0.500	1	08/19/2017 11:36	WG1011540
1,2-Dichloroethane	U		0.108	0.500	1	08/19/2017 11:36	WG1011540
1,1-Dichloroethene	U		0.188	0.500	1	08/19/2017 11:36	WG1011540
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/19/2017 11:36	WG1011540
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/19/2017 11:36	WG1011540
1,2-Dichloropropane	U		0.190	0.500	1	08/19/2017 11:36	WG1011540
1,1-Dichloropropene	U		0.128	0.500	1	08/19/2017 11:36	WG1011540
1,3-Dichloropropane	U		0.147	1.00	1	08/19/2017 11:36	WG1011540
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/19/2017 11:36	WG1011540
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/19/2017 11:36	WG1011540
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/19/2017 11:36	WG1011540
2,2-Dichloropropane	U		0.0929	0.500	1	08/19/2017 11:36	WG1011540
Di-isopropyl ether	U		0.0924	0.500	1	08/19/2017 11:36	WG1011540
Ethylbenzene	U		0.158	0.500	1	08/19/2017 11:36	WG1011540
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/19/2017 11:36	WG1011540
2-Hexanone	U		0.757	5.00	1	08/19/2017 11:36	WG1011540
n-Hexane	U		0.305	5.00	1	08/19/2017 11:36	WG1011540
Iodomethane	U		0.377	10.0	1	08/19/2017 11:36	WG1011540
Isopropylbenzene	U		0.126	0.500	1	08/19/2017 11:36	WG1011540
p-Isopropyltoluene	U		0.138	0.500	1	08/19/2017 11:36	WG1011540
2-Butanone (MEK)	U		1.28	5.00	1	08/19/2017 11:36	WG1011540

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 03/27/17 00:00

L930317

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	08/19/2017 11:36	WG1011540
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/19/2017 11:36	WG1011540
Methyl tert-butyl ether	U		0.102	0.500	1	08/19/2017 11:36	WG1011540
Naphthalene	0.211	<u>BJ</u>	0.174	2.50	1	08/19/2017 11:36	WG1011540
n-Propylbenzene	U		0.162	0.500	1	08/19/2017 11:36	WG1011540
Styrene	U		0.117	0.500	1	08/19/2017 11:36	WG1011540
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/19/2017 11:36	WG1011540
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/19/2017 11:36	WG1011540
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/19/2017 11:36	WG1011540
Tetrachloroethene	U		0.199	0.500	1	08/19/2017 11:36	WG1011540
Toluene	U		0.412	0.500	1	08/19/2017 11:36	WG1011540
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/19/2017 11:36	WG1011540
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/19/2017 11:36	WG1011540
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/19/2017 11:36	WG1011540
1,1,2-Trichloroethane	U		0.186	0.500	1	08/19/2017 11:36	WG1011540
Trichloroethene	U		0.153	0.500	1	08/19/2017 11:36	WG1011540
Trichlorofluoromethane	U		0.130	2.50	1	08/19/2017 11:36	WG1011540
1,2,3-Trichloropropane	U		0.247	2.50	1	08/19/2017 11:36	WG1011540
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/19/2017 11:36	WG1011540
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/19/2017 11:36	WG1011540
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/19/2017 11:36	WG1011540
Vinyl acetate	U		0.645	5.00	1	08/19/2017 11:36	WG1011540
Vinyl chloride	U		0.118	0.500	1	08/19/2017 11:36	WG1011540
Xylenes, Total	U		0.316	1.50	1	08/19/2017 11:36	WG1011540
(S) Toluene-d8	109			80.0-120		08/19/2017 11:36	WG1011540
(S) Dibromofluoromethane	98.2			76.0-123		08/19/2017 11:36	WG1011540
(S) 4-Bromofluorobenzene	101			80.0-120		08/19/2017 11:36	WG1011540

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3243530-1 08/22/17 10:58

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00120			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L930307-08 Original Sample (OS) • Duplicate (DUP)

(OS) L930307-08 08/22/17 10:58 • (DUP) R3243530-3 08/22/17 10:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	84.1	83.7	1	0.460		5

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3243530-2 08/22/17 10:58

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3243913-3 08/22/17 17:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243913-1 08/22/17 15:56 • (LCSD) R3243913-2 08/22/17 16:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5540	5650	101	103	72.0-134			2.09	20
(S) a,a,a-Trifluorotoluene(FID)				104	105	77.0-122				

5 Sr

6 Qc

7 Gl

L930317-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L930317-07 08/23/17 04:12 • (MS) R3243913-4 08/23/17 04:34 • (MSD) R3243913-5 08/23/17 04:56

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	2210	4490	4550	41.5	42.6	1	23.0-159			1.34	20
(S) a,a,a-Trifluorotoluene(FID)					115	114		77.0-122				

8 Al

9 Sc



Method Blank (MB)

(MB) R3243841-3 08/23/17 11:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	0.0672	↓	0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243841-1 08/23/17 10:34 • (LCSD) R3243841-2 08/23/17 10:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.64	4.89	103	88.9	70.0-133			14.2	20
(S) a,a,a-Trifluorotoluene(FID)				89.6	94.3	77.0-120				

L930317-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L930317-03 08/23/17 18:02 • (MS) R3243841-4 08/23/17 19:48 • (MSD) R3243841-5 08/23/17 20:09

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	6.62	0.0849	4.64	5.51	68.7	82.0	1	10.0-146			17.3	30
(S) a,a,a-Trifluorotoluene(FID)					91.5	86.9		77.0-120				



Method Blank (MB)

(MB) R3243014-4 08/19/17 10:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3243014-4 08/19/17 10:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.436	U	0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	0.145	U	0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	107			80.0-120
(S) Dibromofluoromethane	98.6			76.0-123
(S) 4-Bromofluorobenzene	104			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243014-1 08/19/17 09:39 • (LCSD) R3243014-2 08/19/17 09:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	120	117	96.4	93.4	10.0-160			3.19	23
Acrylonitrile	125	102	106	81.8	84.9	60.0-142			3.78	20
Benzene	25.0	23.7	24.1	94.8	96.5	69.0-123			1.82	20
Bromobenzene	25.0	24.6	23.9	98.2	95.6	79.0-120			2.74	20
Bromodichloromethane	25.0	24.4	24.5	97.5	97.9	76.0-120			0.490	20
Bromochloromethane	25.0	23.1	23.9	92.2	95.6	76.0-122			3.54	20
Bromoform	25.0	25.2	24.5	101	98.0	67.0-132			2.67	20
Bromomethane	25.0	21.7	22.5	86.8	90.2	18.0-160			3.78	20
n-Butylbenzene	25.0	24.6	25.2	98.4	101	72.0-126			2.22	20
sec-Butylbenzene	25.0	25.0	25.2	100	101	74.0-121			0.480	20
tert-Butylbenzene	25.0	24.8	25.3	99.2	101	75.0-122			2.03	20
Carbon disulfide	25.0	24.0	24.6	96.1	98.5	55.0-127			2.48	20
Carbon tetrachloride	25.0	22.9	23.4	91.5	93.5	63.0-122			2.23	20
Chlorobenzene	25.0	25.3	25.1	101	101	79.0-121			0.490	20
Chlorodibromomethane	25.0	24.4	24.8	97.7	99.2	75.0-125			1.47	20
Chloroethane	25.0	23.3	24.0	93.2	96.2	47.0-152			3.15	20
Chloroform	25.0	23.2	23.9	92.7	95.8	72.0-121			3.29	20
Chloromethane	25.0	23.5	24.1	94.1	96.4	48.0-139			2.39	20
2-Chlorotoluene	25.0	25.1	24.7	100	98.9	74.0-122			1.46	20
4-Chlorotoluene	25.0	25.6	24.8	103	99.0	79.0-120			3.52	20
1,2-Dibromo-3-Chloropropane	25.0	21.9	22.3	87.5	89.2	64.0-127			1.99	20
1,2-Dibromoethane	25.0	24.4	24.3	97.7	97.3	77.0-123			0.430	20
Dibromomethane	25.0	24.0	24.4	96.0	97.6	78.0-120			1.62	20
1,2-Dichlorobenzene	25.0	23.8	24.2	95.4	96.9	80.0-120			1.53	20
1,3-Dichlorobenzene	25.0	25.0	24.8	99.8	99.1	72.0-123			0.740	20
1,4-Dichlorobenzene	25.0	24.6	24.6	98.3	98.4	77.0-120			0.0900	20
Dichlorodifluoromethane	25.0	25.9	26.6	104	106	49.0-155			2.53	20
1,1-Dichloroethane	25.0	24.1	24.6	96.3	98.3	70.0-126			2.06	20
1,2-Dichloroethane	25.0	23.4	23.8	93.5	95.1	67.0-126			1.70	20
1,1-Dichloroethene	25.0	24.6	25.2	98.3	101	64.0-129			2.34	20
cis-1,2-Dichloroethene	25.0	23.3	24.2	93.1	96.7	73.0-120			3.86	20
trans-1,2-Dichloroethene	25.0	23.5	24.0	93.9	96.1	71.0-121			2.39	20
1,2-Dichloropropane	25.0	25.7	25.0	103	100	75.0-125			2.58	20
1,1-Dichloropropene	25.0	24.3	25.0	97.1	100	71.0-129			2.98	20
1,3-Dichloropropane	25.0	25.1	24.6	100	98.5	80.0-121			1.87	20
cis-1,3-Dichloropropene	25.0	25.0	25.5	100	102	79.0-123			2.06	20
trans-1,3-Dichloropropene	25.0	25.5	25.4	102	101	74.0-127			0.380	20
trans-1,4-Dichloro-2-butene	25.0	24.7	24.5	98.7	98.0	55.0-134			0.670	20
2,2-Dichloropropane	25.0	23.9	24.4	95.5	97.6	60.0-125			2.20	20
Di-isopropyl ether	25.0	23.4	24.1	93.8	96.3	59.0-133			2.59	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243014-1 08/19/17 09:39 • (LCSD) R3243014-2 08/19/17 09:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	25.3	25.0	101	100	77.0-120			1.24	20
Hexachloro-1,3-butadiene	25.0	22.8	24.2	91.1	96.7	64.0-131			5.98	20
2-Hexanone	125	118	122	94.5	97.4	58.0-147			3.06	20
n-Hexane	25.0	24.3	24.5	97.3	98.0	56.0-124			0.690	20
Iodomethane	125	120	123	96.1	98.1	57.0-140			2.04	20
Isopropylbenzene	25.0	25.5	25.5	102	102	75.0-120			0.240	20
p-Isopropyltoluene	25.0	24.6	25.0	98.4	99.8	74.0-126			1.50	20
2-Butanone (MEK)	125	115	116	91.7	92.4	37.0-158			0.820	20
Methylene Chloride	25.0	22.6	23.3	90.3	93.2	66.0-121			3.15	20
4-Methyl-2-pentanone (MIBK)	125	113	115	90.4	92.2	59.0-143			1.99	20
Methyl tert-butyl ether	25.0	22.7	23.0	90.9	92.1	64.0-123			1.30	20
Naphthalene	25.0	21.7	22.6	86.8	90.5	62.0-128			4.25	20
n-Propylbenzene	25.0	25.5	25.3	102	101	79.0-120			0.790	20
Styrene	25.0	26.3	25.3	105	101	78.0-124			4.09	20
1,1,1,2-Tetrachloroethane	25.0	23.7	24.9	94.7	99.6	75.0-122			5.00	20
1,1,2,2-Tetrachloroethane	25.0	23.9	23.8	95.5	95.1	71.0-122			0.450	20
1,1,2-Trichlorotrifluoroethane	25.0	25.5	26.4	102	106	61.0-136			3.64	20
Tetrachloroethene	25.0	24.8	24.5	99.3	98.2	70.0-127			1.15	20
Toluene	25.0	24.2	24.4	96.8	97.7	77.0-120			0.870	20
1,2,3-Trichlorobenzene	25.0	22.8	24.2	91.1	96.7	61.0-133			5.92	20
1,2,4-Trichlorobenzene	25.0	23.3	24.3	93.4	97.2	69.0-129			4.07	20
1,1,1-Trichloroethane	25.0	24.0	24.7	96.1	98.7	68.0-122			2.69	20
1,1,2-Trichloroethane	25.0	24.5	24.3	98.0	97.1	78.0-120			0.960	20
Trichloroethene	25.0	24.3	24.6	97.2	98.5	78.0-120			1.34	20
Trichlorofluoromethane	25.0	23.4	24.5	93.5	98.2	56.0-137			4.81	20
1,2,3-Trichloropropane	25.0	23.9	23.4	95.7	93.4	72.0-124			2.47	20
1,2,4-Trimethylbenzene	25.0	24.3	24.3	97.3	97.3	75.0-120			0.0300	20
1,2,3-Trimethylbenzene	25.0	23.4	23.9	93.8	95.6	75.0-120			2.00	20
1,3,5-Trimethylbenzene	25.0	24.4	24.7	97.8	98.6	75.0-120			0.870	20
Vinyl acetate	125	134	136	107	109	46.0-160			1.10	20
Vinyl chloride	25.0	24.1	24.7	96.3	99.0	64.0-133			2.69	20
Xylenes, Total	75.0	75.0	75.2	100	100	77.0-120			0.270	20
(S) Toluene-d8				106	107	80.0-120				
(S) Dibromofluoromethane				95.6	99.3	76.0-123				
(S) 4-Bromofluorobenzene				106	102	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3243686-4 08/23/17 01:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3243686-4 08/23/17 01:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	0.00316	U	0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	97.2			74.0-131
(S) 4-Bromofluorobenzene	95.5			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243686-1 08/22/17 22:27 • (LCSD) R3243686-2 08/23/17 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	0.103	0.113	82.6	90.0	11.0-160			8.64	23
Acrylonitrile	0.125	0.122	0.114	97.2	91.4	61.0-143			6.22	20
Benzene	0.0250	0.0243	0.0236	97.2	94.4	71.0-124			2.88	20
Bromobenzene	0.0250	0.0234	0.0230	93.7	91.8	78.0-120			1.99	20
Bromodichloromethane	0.0250	0.0236	0.0230	94.5	92.0	75.0-120			2.72	20
Bromochloromethane	0.0250	0.0250	0.0236	99.9	94.4	80.0-121			5.59	20
Bromoform	0.0250	0.0234	0.0224	93.6	89.4	65.0-133			4.56	20
Bromomethane	0.0250	0.0267	0.0269	107	108	26.0-160			0.990	20
n-Butylbenzene	0.0250	0.0219	0.0247	87.7	98.9	73.0-126			12.0	20
sec-Butylbenzene	0.0250	0.0230	0.0233	91.9	93.3	75.0-121			1.43	20
tert-Butylbenzene	0.0250	0.0234	0.0231	93.7	92.3	74.0-122			1.48	20
Carbon disulfide	0.0250	0.0242	0.0242	96.9	96.8	53.0-130			0.0500	20
Carbon tetrachloride	0.0250	0.0226	0.0231	90.5	92.3	66.0-123			1.99	20
Chlorobenzene	0.0250	0.0245	0.0239	98.2	95.7	79.0-121			2.56	20
Chlorodibromomethane	0.0250	0.0235	0.0230	93.8	92.0	74.0-128			2.00	20
Chloroethane	0.0250	0.0267	0.0268	107	107	51.0-147			0.280	20
Chloroform	0.0250	0.0241	0.0236	96.6	94.3	73.0-123			2.39	20
Chloromethane	0.0250	0.0238	0.0236	95.2	94.4	51.0-138			0.810	20
2-Chlorotoluene	0.0250	0.0234	0.0235	93.6	94.0	72.0-124			0.470	20
4-Chlorotoluene	0.0250	0.0222	0.0230	88.7	91.8	78.0-120			3.50	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0250	0.0250	100	100	65.0-126			0.0600	20
1,2-Dibromoethane	0.0250	0.0256	0.0233	102	93.2	78.0-122			9.27	20
Dibromomethane	0.0250	0.0251	0.0232	100	92.9	79.0-120			7.80	20
1,2-Dichlorobenzene	0.0250	0.0243	0.0243	97.2	97.3	80.0-120			0.120	20
1,3-Dichlorobenzene	0.0250	0.0235	0.0250	94.0	100	72.0-123			6.22	20
1,4-Dichlorobenzene	0.0250	0.0226	0.0237	90.4	94.8	77.0-120			4.68	20
trans-1,4-Dichloro-2-butene	0.0250	0.0250	0.0264	100	106	68.0-126			5.31	20
Dichlorodifluoromethane	0.0250	0.0233	0.0229	93.0	91.7	49.0-155			1.47	20
1,1-Dichloroethane	0.0250	0.0248	0.0243	99.1	97.2	70.0-128			1.95	20
1,2-Dichloroethane	0.0250	0.0259	0.0244	103	97.6	69.0-128			5.88	20
1,1-Dichloroethene	0.0250	0.0234	0.0237	93.8	94.6	63.0-131			0.950	20
cis-1,2-Dichloroethene	0.0250	0.0230	0.0218	92.2	87.1	74.0-123			5.64	20
trans-1,2-Dichloroethene	0.0250	0.0222	0.0224	88.8	89.6	72.0-122			0.830	20
1,2-Dichloropropane	0.0250	0.0255	0.0245	102	98.2	75.0-126			3.75	20
1,1-Dichloropropene	0.0250	0.0233	0.0239	93.4	95.7	72.0-130			2.40	20
1,3-Dichloropropane	0.0250	0.0265	0.0251	106	100	80.0-121			5.35	20
cis-1,3-Dichloropropene	0.0250	0.0244	0.0238	97.6	95.2	80.0-125			2.42	20
trans-1,3-Dichloropropene	0.0250	0.0265	0.0257	106	103	75.0-129			3.28	20
2,2-Dichloropropane	0.0250	0.0227	0.0237	90.8	94.9	60.0-129			4.43	20
Di-isopropyl ether	0.0250	0.0243	0.0233	97.1	93.4	62.0-133			3.93	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243686-1 08/22/17 22:27 • (LCSD) R3243686-2 08/23/17 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0234	0.0233	93.5	93.2	77.0-120			0.220	20
Hexachloro-1,3-butadiene	0.0250	0.0225	0.0245	90.2	98.2	68.0-128			8.53	20
2-Hexanone	0.125	0.128	0.130	103	104	61.0-143			1.71	20
n-Hexane	0.0250	0.0217	0.0213	86.9	85.2	57.0-125			1.99	20
Iodomethane	0.125	0.129	0.131	103	105	67.0-132			1.93	20
Isopropylbenzene	0.0250	0.0227	0.0227	90.8	90.7	75.0-120			0.160	20
p-Isopropyltoluene	0.0250	0.0224	0.0236	89.5	94.3	74.0-125			5.16	20
2-Butanone (MEK)	0.125	0.127	0.129	102	103	37.0-159			1.27	20
Methylene Chloride	0.0250	0.0230	0.0222	91.9	89.0	67.0-123			3.27	20
4-Methyl-2-pentanone (MIBK)	0.125	0.131	0.124	105	98.9	60.0-144			5.92	20
Methyl tert-butyl ether	0.0250	0.0246	0.0233	98.5	93.1	66.0-125			5.67	20
Naphthalene	0.0250	0.0237	0.0224	94.9	89.6	64.0-125			5.79	20
n-Propylbenzene	0.0250	0.0224	0.0233	89.6	93.4	78.0-120			4.09	20
Styrene	0.0250	0.0227	0.0220	90.8	87.9	78.0-124			3.25	20
1,1,1,2-Tetrachloroethane	0.0250	0.0233	0.0230	93.0	92.2	74.0-124			0.910	20
1,1,2,2-Tetrachloroethane	0.0250	0.0239	0.0230	95.6	91.9	73.0-120			4.01	20
Tetrachloroethene	0.0250	0.0243	0.0241	97.3	96.2	70.0-127			1.09	20
Toluene	0.0250	0.0231	0.0224	92.2	89.6	77.0-120			2.85	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0249	0.0254	99.4	101	64.0-135			2.03	20
1,2,3-Trichlorobenzene	0.0250	0.0246	0.0253	98.4	101	68.0-126			2.82	20
1,2,4-Trichlorobenzene	0.0250	0.0234	0.0261	93.6	105	70.0-127			11.1	20
1,1,1-Trichloroethane	0.0250	0.0222	0.0224	89.0	89.7	69.0-125			0.850	20
1,1,2-Trichloroethane	0.0250	0.0243	0.0230	97.0	92.0	78.0-120			5.32	20
Trichloroethene	0.0250	0.0240	0.0238	95.9	95.1	79.0-120			0.900	20
Trichlorofluoromethane	0.0250	0.0286	0.0299	114	120	59.0-136			4.56	20
1,2,3-Trichloropropane	0.0250	0.0243	0.0218	97.1	87.2	73.0-124			10.8	20
1,2,3-Trimethylbenzene	0.0250	0.0229	0.0228	91.7	91.1	76.0-120			0.660	20
1,2,4-Trimethylbenzene	0.0250	0.0210	0.0216	84.2	86.3	75.0-120			2.54	20
1,3,5-Trimethylbenzene	0.0250	0.0222	0.0227	88.8	90.7	75.0-120			2.14	20
Vinyl acetate	0.125	0.131	0.135	105	108	58.0-156			3.01	20
Vinyl chloride	0.0250	0.0278	0.0284	111	114	63.0-134			2.11	20
Xylenes, Total	0.0750	0.0675	0.0678	90.0	90.4	77.0-120			0.440	20
(S) Toluene-d8				102	101	80.0-120				
(S) Dibromofluoromethane				97.7	97.7	74.0-131				
(S) 4-Bromofluorobenzene				93.0	91.6	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL (dry)	Reported Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.



State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

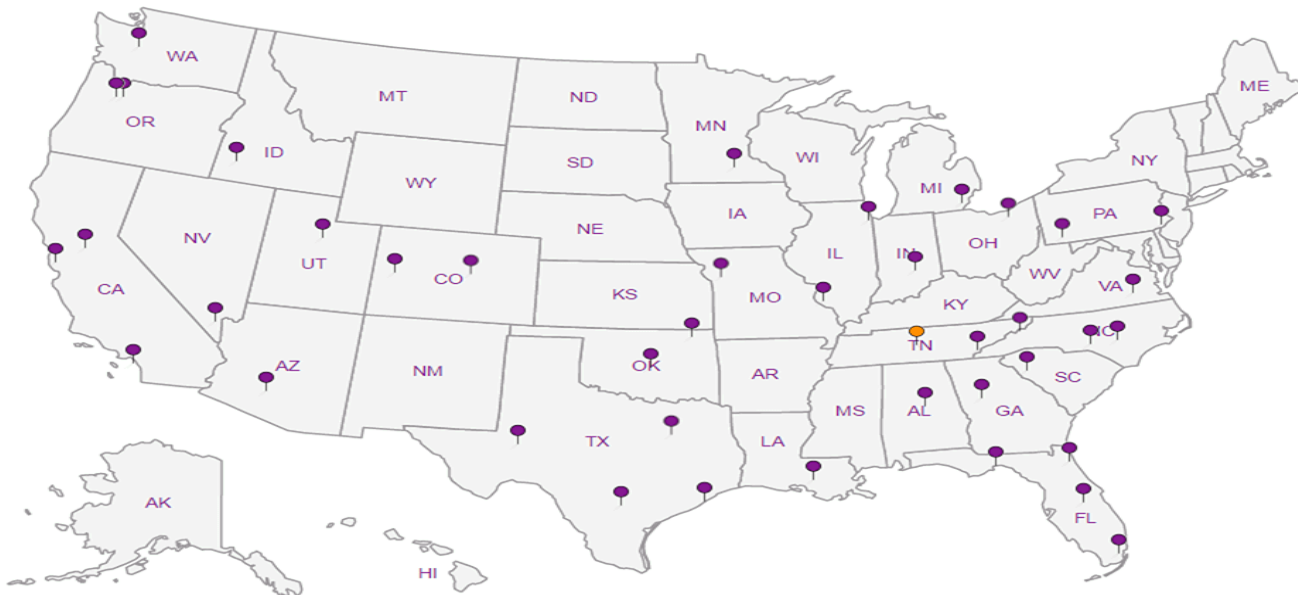
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:

Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: **American Linen Project**

City/State Collected: **SEATTLE, WA**

Phone: 206-529-3980
Fax: 206-529-3985

Client Project #

Lab Project #
PESENVSWA-ALP

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Immediately Packed on Ice N Y

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

No. of
Containers

Analysis / Container / Preservative

Chain of Custody Page of



LAB SCIENTIFICS
a subsidiary of *PerkinElmer*

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **6930351930317**

Tab **G103**

Accnum: **PESENVSWA**

Template: **T126586**

Prelogin: **P613274**

TSR: **110 - Brian Ford**

PB: **9/10/17 MW**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Containers	NWTPHGX 2ozClr-NoPres	NWTPHGX 40miAmb HCl	TS 4ozClr-NoPres	V8260C 40m/NaHSO4/Syr/MeOH	V8260C 40miAmb-HCl	Remarks	Sample # (lab only)
MW- 133-85	GRAB	SS	85	8/15/17	1540	5	X		X	X			-01
MW 1330-95 133-95		SS	95	8/16/17	0850	5	X		X	X			-02
MW- 133-105		SS	105		1045	5	X		X	X			-03
MW- 133-120		SS	120		1145	5	X		X	X			-04
MW- 133-130		SS	130		1420	5	X		X	X			-05
MW- 133-135		SS	135		1500	5	X		X	X			-06
MW- _____		SS				5	X		X	X			(SM)
MW- 133-90-W	GRAB	GW	90	8/15/17	1705	6		X			X		-07
MW- 133-100-W		GW	100	8/16/17	1000	4		X			X	HOLD	-08
MW TRIP BLANK	NA	NA-GW	NA	3/27/17	NA	81		X			X		

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks:

Samples returned via:
 UPS FedEX Courier _____

Tracking # **74740921 8664**

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date: 1620	Time:	Received by: (Signature)	Trip Blank Received: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No HCL / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.3 °C Bottles Received: 48
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/7/17 Time: 0245

8-114

Condition:
NCF / OK

MEMORANDUM

TO: Project File **DATE:** September 18, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.604
TASK: August 15-16, 2017 – Soil and Groundwater Samples
LAB: ESC Lab ID L930317

Six (6) soil samples, two (2) groundwater samples, and a trip blank sample were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington, on August 15-16, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. **One groundwater sample was placed on hold.** Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- Total Solids by Standard Methods 2540 G-2011.

The results are reported in ESC Sample Delivery Group (SDG) L930317. The quarterly monitoring round occurred between August and September of 2017. Associated sample data are reported in **X#** ESC SDGs (SDGs L929881, L929901, L930317, L930670, L930884, L931390, L931655, L932059, L932260, L932611, L932876, L933267, L933455, L934130, L934673, L934916, **and**). The quality assurance review of the sample data associated with SDG L930317 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected on August 15-16, 2017 in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 1.3 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for soils and preserved water from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

All samples were analyzed within the WA State recommended holding time of fourteen days for soils and preserved water from the date of sample collection. All holding time criteria were met.

General Chemistry (Total Solids):

Samples were analyzed within the USEPA recommended holding time of 7 days for total solids. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable and ESC notes do not indicate there were any calibration issues.

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs) with the following exception:

- Analytical batch WG1011540 (waters): Low levels of naphthalene and 1,2,4-trimethylbenzene were detected between the MDL and the RDL in the method blank analyzed on August 19, 2017. Low levels of naphthalene and 1,2,4-trimethylbenzene were detected below the RDLs in sample MW-133-90-W and qualified (JB) by ESC to indicate an estimated concentration and blank contamination. **Naphthalene and 1,2,4-trimethylbenzene results for sample MW-133-90-W are qualified as not detected (U) due to method blank contamination.**

NWTPH-Gx Method:

Laboratory method blanks were included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blanks at or above the RDL with the following exception:

- Analytical batch WG1012776 (soil): A low level of gasoline range organics were detected between the MDL and the RDL in the method blank analyzed on August 23, 2017. Low levels of gasoline were detected below RDLs in samples MW-133-95, MW-133-105, MW-133-120, and MW-133-130. These were qualified (BJ) by ESC to indicate an estimated concentration (below RDL) and blank contamination. **Samples MW-133-95, MW-133-105, MW-133-120, and MW-133-130 gasoline results are qualified as not detected (U) due to blank contamination. Sample MW-133-135 result for gasoline is estimated and qualified (J) due to low level blank contamination.**

Total Solids by SM 2540 G 2011:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (% solids) were not detected at significant levels in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was collected and analyzed. The target analytes (VOCs and gasoline) were not detected in the method blanks at or above the RDL with the following exception:

- Analytical batch WG1011540: A low level of naphthalene was detected between MDL and the RDL in the trip blank analyzed on August 19, 2017. No action was taken on this basis. Refer to the discussion under the method blank since naphthalene was also detected in the method blank at a low level.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Total Solids by SM 2540 G 2011:

Laboratory duplicate sample analyses were performed on a non-client sample within the analytical batch. The primary/duplicate RPD for total solids analyses are within the laboratory control limit of 5%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSDs, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, LCS/LCSDs, MS/MSDs and the method blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils and waters. with the following discussion:

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPDs for the control analyte (gasoline) are within the laboratory control criteria for water and soils.

Total Solids by SM 2540 G 2011:

The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Refer to LCS/LCSD results for accuracy and precision data.

NWTPH-Gx Method:

MS/MSD analyses were performed on soil sample MW-133-105 and on water sample MW-133-90-W. MS/MSD % Rs and RPDs for gasoline were within the laboratory control criteria for soils.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following exceptions:

- Samples MW-133-85 and MW-133-120 were not reanalyzed at a lower dilution as there was no low level sodium bisulfite vials remaining. No action was taken other than to note this.

Compound Identification and Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

PES requested and ESC confirmed that there does not appear to be a gasoline chromatographic pattern in selected samples, and in “all likelihood the gasoline values are in the fact the high levels of chlorinated VOCs.” **Gasoline range organic results for samples MW-133-85 and MW-133-90-W are qualified as estimated (J) based on chromatographic patterns in the samples and elevated chlorinated VOCs (CVOCs).**

ESC review indicates that sample MW-133-135 did not have high levels of CVOCs and that the gasoline appears to be eluting in the C8-C9 range. The pattern appears to be consistent with gasoline range organics and not due to CVOC overlap. No action is taken on this basis.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 08/15/17 15:40

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.3		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1.28	J	0.0397	0.117	1	08/23/2017 17:19	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		08/23/2017 17:19	WG1012776

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.293	1.47	25	08/23/2017 18:27	WG1012508
Acrylonitrile	U		0.0525	0.293	25	08/23/2017 18:27	WG1012508
Benzene	U		0.00791	0.0293	25	08/23/2017 18:27	WG1012508
Bromobenzene	U		0.00832	0.0293	25	08/23/2017 18:27	WG1012508
Bromodichloromethane	U		0.00744	0.0293	25	08/23/2017 18:27	WG1012508
Bromochloromethane	U		0.0114	0.147	25	08/23/2017 18:27	WG1012508
Bromoform	U		0.0124	0.0293	25	08/23/2017 18:27	WG1012508
Bromomethane	U		0.0393	0.147	25	08/23/2017 18:27	WG1012508
n-Butylbenzene	U		0.00756	0.0293	25	08/23/2017 18:27	WG1012508
sec-Butylbenzene	U		0.00588	0.0293	25	08/23/2017 18:27	WG1012508
tert-Butylbenzene	U		0.00604	0.0293	25	08/23/2017 18:27	WG1012508
Carbon disulfide	U		0.00647	0.0293	25	08/23/2017 18:27	WG1012508
Carbon tetrachloride	U		0.00961	0.0293	25	08/23/2017 18:27	WG1012508
Chlorobenzene	U		0.00621	0.0293	25	08/23/2017 18:27	WG1012508
Chlorodibromomethane	U		0.0109	0.0293	25	08/23/2017 18:27	WG1012508
Chloroethane	U		0.0277	0.147	25	08/23/2017 18:27	WG1012508
Chloroform	U		0.00671	0.147	25	08/23/2017 18:27	WG1012508
Chloromethane	U		0.0110	0.0733	25	08/23/2017 18:27	WG1012508
2-Chlorotoluene	U		0.00882	0.0293	25	08/23/2017 18:27	WG1012508
4-Chlorotoluene	U		0.00703	0.0293	25	08/23/2017 18:27	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.0307	0.147	25	08/23/2017 18:27	WG1012508
1,2-Dibromoethane	U		0.0101	0.0293	25	08/23/2017 18:27	WG1012508
Dibromomethane	U		0.0112	0.0293	25	08/23/2017 18:27	WG1012508
1,2-Dichlorobenzene	U		0.00893	0.0293	25	08/23/2017 18:27	WG1012508
1,3-Dichlorobenzene	U		0.00701	0.0293	25	08/23/2017 18:27	WG1012508
1,4-Dichlorobenzene	U		0.00662	0.0293	25	08/23/2017 18:27	WG1012508
Dichlorodifluoromethane	U		0.0209	0.147	25	08/23/2017 18:27	WG1012508
1,1-Dichloroethane	U		0.00584	0.0293	25	08/23/2017 18:27	WG1012508
1,2-Dichloroethane	U		0.00776	0.0293	25	08/23/2017 18:27	WG1012508
1,1-Dichloroethene	U		0.00889	0.0293	25	08/23/2017 18:27	WG1012508
cis-1,2-Dichloroethene	0.0717		0.00689	0.0293	25	08/23/2017 18:27	WG1012508
trans-1,2-Dichloroethene	U		0.00774	0.0293	25	08/23/2017 18:27	WG1012508
1,2-Dichloropropane	U		0.0105	0.0293	25	08/23/2017 18:27	WG1012508
1,1-Dichloropropene	U		0.00928	0.0293	25	08/23/2017 18:27	WG1012508
1,3-Dichloropropane	U		0.00607	0.0293	25	08/23/2017 18:27	WG1012508
cis-1,3-Dichloropropene	U		0.00768	0.0293	25	08/23/2017 18:27	WG1012508
trans-1,3-Dichloropropene	U		0.00783	0.0293	25	08/23/2017 18:27	WG1012508
trans-1,4-Dichloro-2-butene	U		0.0227	0.0733	25	08/23/2017 18:27	WG1012508
2,2-Dichloropropane	U		0.00818	0.0293	25	08/23/2017 18:27	WG1012508
Di-isopropyl ether	U		0.00727	0.0293	25	08/23/2017 18:27	WG1012508
Ethylbenzene	U		0.00870	0.0293	25	08/23/2017 18:27	WG1012508
Hexachloro-1,3-butadiene	U		0.0100	0.0293	25	08/23/2017 18:27	WG1012508
2-Hexanone	U		0.0401	0.293	25	08/23/2017 18:27	WG1012508
n-Hexane	U		0.00850	0.293	25	08/23/2017 18:27	WG1012508

6 Qc

7 Gl

8 Al

9 Sc

JC 9/18/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.0741	0.293	25	08/23/2017 18:27	WG1012508
Isopropylbenzene	U		0.00713	0.0293	25	08/23/2017 18:27	WG1012508
p-Isopropyltoluene	U		0.00598	0.0293	25	08/23/2017 18:27	WG1012508
2-Butanone (MEK)	U		0.137	0.293	25	08/23/2017 18:27	WG1012508
Methylene Chloride	U		0.0293	0.147	25	08/23/2017 18:27	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.0551	0.293	25	08/23/2017 18:27	WG1012508
Methyl tert-butyl ether	0.0772		0.00621	0.0293	25	08/23/2017 18:27	WG1012508
Naphthalene	U		0.0293	0.147	25	08/23/2017 18:27	WG1012508
n-Propylbenzene	U		0.00604	0.0293	25	08/23/2017 18:27	WG1012508
Styrene	U		0.00686	0.0293	25	08/23/2017 18:27	WG1012508
1,1,1,2-Tetrachloroethane	U		0.00774	0.0293	25	08/23/2017 18:27	WG1012508
1,1,2,2-Tetrachloroethane	U		0.0107	0.0293	25	08/23/2017 18:27	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.0107	0.0293	25	08/23/2017 18:27	WG1012508
Tetrachloroethene	2.28		0.00809	0.0293	25	08/23/2017 18:27	WG1012508
Toluene	0.580		0.0127	0.147	25	08/23/2017 18:27	WG1012508
1,2,3-Trichlorobenzene	U		0.00897	0.0293	25	08/23/2017 18:27	WG1012508
1,2,4-Trichlorobenzene	U		0.0114	0.0293	25	08/23/2017 18:27	WG1012508
1,1,1-Trichloroethane	U		0.00838	0.0293	25	08/23/2017 18:27	WG1012508
1,1,2-Trichloroethane	U		0.00811	0.0293	25	08/23/2017 18:27	WG1012508
Trichloroethene	0.146		0.00818	0.0293	25	08/23/2017 18:27	WG1012508
Trichlorofluoromethane	U		0.0112	0.147	25	08/23/2017 18:27	WG1012508
1,2,3-Trichloropropane	U		0.0217	0.0733	25	08/23/2017 18:27	WG1012508
1,2,4-Trimethylbenzene	U		0.00619	0.0293	25	08/23/2017 18:27	WG1012508
1,2,3-Trimethylbenzene	U		0.00842	0.0293	25	08/23/2017 18:27	WG1012508
1,3,5-Trimethylbenzene	U		0.00780	0.0293	25	08/23/2017 18:27	WG1012508
Vinyl acetate	U		0.0701	0.293	25	08/23/2017 18:27	WG1012508
Vinyl chloride	U		0.00853	0.0293	25	08/23/2017 18:27	WG1012508
Xylenes, Total	U		0.0204	0.0879	25	08/23/2017 18:27	WG1012508
(S) Toluene-d8	104			80.0-120		08/23/2017 18:27	WG1012508
(S) Dibromofluoromethane	98.9			74.0-131		08/23/2017 18:27	WG1012508
(S) 4-Bromofluorobenzene	95.5			64.0-132		08/23/2017 18:27	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930317-01 WG1012508: No low level sodium bisulfite vials remaining. Reporting at the lowest possible dilution.

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.8		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.0572 U	B J	0.0395	0.116	1	08/23/2017 17:40	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	99.1			77.0-120		08/23/2017 17:40	WG1012776

3 Ss

4 Cn

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0116	0.0582	1	08/23/2017 03:39	WG1012508
Acrylonitrile	U		0.00209	0.0116	1	08/23/2017 03:39	WG1012508
Benzene	U		0.000315	0.00116	1	08/23/2017 03:39	WG1012508
Bromobenzene	U		0.000331	0.00116	1	08/23/2017 03:39	WG1012508
Bromodichloromethane	U		0.000296	0.00116	1	08/23/2017 03:39	WG1012508
Bromochloromethane	U		0.000454	0.00582	1	08/23/2017 03:39	WG1012508
Bromoform	U		0.000494	0.00116	1	08/23/2017 03:39	WG1012508
Bromomethane	U		0.00156	0.00582	1	08/23/2017 03:39	WG1012508
n-Butylbenzene	U		0.000301	0.00116	1	08/23/2017 03:39	WG1012508
sec-Butylbenzene	U		0.000234	0.00116	1	08/23/2017 03:39	WG1012508
tert-Butylbenzene	U		0.000240	0.00116	1	08/23/2017 03:39	WG1012508
Carbon disulfide	U		0.000257	0.00116	1	08/23/2017 03:39	WG1012508
Carbon tetrachloride	U		0.000382	0.00116	1	08/23/2017 03:39	WG1012508
Chlorobenzene	U		0.000247	0.00116	1	08/23/2017 03:39	WG1012508
Chlorodibromomethane	U		0.000435	0.00116	1	08/23/2017 03:39	WG1012508
Chloroethane	U		0.00110	0.00582	1	08/23/2017 03:39	WG1012508
Chloroform	U		0.000267	0.00582	1	08/23/2017 03:39	WG1012508
Chloromethane	U		0.000437	0.00291	1	08/23/2017 03:39	WG1012508
2-Chlorotoluene	U		0.000351	0.00116	1	08/23/2017 03:39	WG1012508
4-Chlorotoluene	U		0.000280	0.00116	1	08/23/2017 03:39	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00122	0.00582	1	08/23/2017 03:39	WG1012508
1,2-Dibromoethane	U		0.000400	0.00116	1	08/23/2017 03:39	WG1012508
Dibromomethane	U		0.000445	0.00116	1	08/23/2017 03:39	WG1012508
1,2-Dichlorobenzene	U		0.000355	0.00116	1	08/23/2017 03:39	WG1012508
1,3-Dichlorobenzene	U		0.000278	0.00116	1	08/23/2017 03:39	WG1012508
1,4-Dichlorobenzene	U		0.000263	0.00116	1	08/23/2017 03:39	WG1012508
Dichlorodifluoromethane	U		0.000831	0.00582	1	08/23/2017 03:39	WG1012508
1,1-Dichloroethane	U		0.000232	0.00116	1	08/23/2017 03:39	WG1012508
1,2-Dichloroethane	U		0.000309	0.00116	1	08/23/2017 03:39	WG1012508
1,1-Dichloroethene	U		0.000353	0.00116	1	08/23/2017 03:39	WG1012508
cis-1,2-Dichloroethene	U		0.000274	0.00116	1	08/23/2017 03:39	WG1012508
trans-1,2-Dichloroethene	U		0.000308	0.00116	1	08/23/2017 03:39	WG1012508
1,2-Dichloropropane	U		0.000417	0.00116	1	08/23/2017 03:39	WG1012508
1,1-Dichloropropene	U		0.000369	0.00116	1	08/23/2017 03:39	WG1012508
1,3-Dichloropropane	U		0.000241	0.00116	1	08/23/2017 03:39	WG1012508
cis-1,3-Dichloropropene	U		0.000305	0.00116	1	08/23/2017 03:39	WG1012508
trans-1,3-Dichloropropene	U		0.000311	0.00116	1	08/23/2017 03:39	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000906	0.00291	1	08/23/2017 03:39	WG1012508
2,2-Dichloropropane	U		0.000325	0.00116	1	08/23/2017 03:39	WG1012508
Di-isopropyl ether	U		0.000289	0.00116	1	08/23/2017 03:39	WG1012508
Ethylbenzene	U		0.000346	0.00116	1	08/23/2017 03:39	WG1012508
Hexachloro-1,3-butadiene	U		0.000398	0.00116	1	08/23/2017 03:39	WG1012508
2-Hexanone	U		0.00160	0.0116	1	08/23/2017 03:39	WG1012508
n-Hexane	U		0.000338	0.0116	1	08/23/2017 03:39	WG1012508

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 9/18/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00295	0.0116	1	08/23/2017 03:39	WG1012508
Isopropylbenzene	U		0.000283	0.00116	1	08/23/2017 03:39	WG1012508
p-Isopropyltoluene	U		0.000238	0.00116	1	08/23/2017 03:39	WG1012508
2-Butanone (MEK)	U		0.00545	0.0116	1	08/23/2017 03:39	WG1012508
Methylene Chloride	U		0.00116	0.00582	1	08/23/2017 03:39	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00219	0.0116	1	08/23/2017 03:39	WG1012508
Methyl tert-butyl ether	U		0.000247	0.00116	1	08/23/2017 03:39	WG1012508
Naphthalene	U		0.00116	0.00582	1	08/23/2017 03:39	WG1012508
n-Propylbenzene	U		0.000240	0.00116	1	08/23/2017 03:39	WG1012508
Styrene	U		0.000273	0.00116	1	08/23/2017 03:39	WG1012508
1,1,1-Tetrachloroethane	U		0.000308	0.00116	1	08/23/2017 03:39	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000425	0.00116	1	08/23/2017 03:39	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000425	0.00116	1	08/23/2017 03:39	WG1012508
Tetrachloroethene	0.00127		0.000322	0.00116	1	08/23/2017 03:39	WG1012508
Toluene	U		0.000506	0.00582	1	08/23/2017 03:39	WG1012508
1,2,3-Trichlorobenzene	U		0.000356	0.00116	1	08/23/2017 03:39	WG1012508
1,2,4-Trichlorobenzene	U		0.000452	0.00116	1	08/23/2017 03:39	WG1012508
1,1,1-Trichloroethane	U		0.000333	0.00116	1	08/23/2017 03:39	WG1012508
1,1,2-Trichloroethane	U		0.000323	0.00116	1	08/23/2017 03:39	WG1012508
Trichloroethene	U		0.000325	0.00116	1	08/23/2017 03:39	WG1012508
Trichlorofluoromethane	U		0.000445	0.00582	1	08/23/2017 03:39	WG1012508
1,2,3-Trichloropropane	U		0.000863	0.00291	1	08/23/2017 03:39	WG1012508
1,2,4-Trimethylbenzene	U		0.000246	0.00116	1	08/23/2017 03:39	WG1012508
1,2,3-Trimethylbenzene	U		0.000334	0.00116	1	08/23/2017 03:39	WG1012508
1,3,5-Trimethylbenzene	U		0.000310	0.00116	1	08/23/2017 03:39	WG1012508
Vinyl acetate	U		0.00278	0.0116	1	08/23/2017 03:39	WG1012508
Vinyl chloride	U		0.000339	0.00116	1	08/23/2017 03:39	WG1012508
Xylenes, Total	U		0.000813	0.00349	1	08/23/2017 03:39	WG1012508
(S) Toluene-d8	98.9			80.0-120		08/23/2017 03:39	WG1012508
(S) Dibromofluoromethane	99.6			74.0-131		08/23/2017 03:39	WG1012508
(S) 4-Bromofluorobenzene	98.3			64.0-132		08/23/2017 03:39	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.1		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.0849 U	B J	0.0408	0.120	1	08/23/2017 18:02	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	98.6			77.0-120		08/23/2017 18:02	WG1012776

3 Ss

4 Cn

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0120	0.0602	1	08/23/2017 03:59	WG1012508
Acrylonitrile	U		0.00216	0.0120	1	08/23/2017 03:59	WG1012508
Benzene	U		0.000325	0.00120	1	08/23/2017 03:59	WG1012508
Bromobenzene	U		0.000342	0.00120	1	08/23/2017 03:59	WG1012508
Bromodichloromethane	U		0.000306	0.00120	1	08/23/2017 03:59	WG1012508
Bromochloromethane	U		0.000470	0.00602	1	08/23/2017 03:59	WG1012508
Bromoform	U		0.000511	0.00120	1	08/23/2017 03:59	WG1012508
Bromomethane	U		0.00161	0.00602	1	08/23/2017 03:59	WG1012508
n-Butylbenzene	U		0.000311	0.00120	1	08/23/2017 03:59	WG1012508
sec-Butylbenzene	U		0.000242	0.00120	1	08/23/2017 03:59	WG1012508
tert-Butylbenzene	U		0.000248	0.00120	1	08/23/2017 03:59	WG1012508
Carbon disulfide	U		0.000266	0.00120	1	08/23/2017 03:59	WG1012508
Carbon tetrachloride	U		0.000395	0.00120	1	08/23/2017 03:59	WG1012508
Chlorobenzene	U		0.000255	0.00120	1	08/23/2017 03:59	WG1012508
Chlorodibromomethane	U		0.000449	0.00120	1	08/23/2017 03:59	WG1012508
Chloroethane	U		0.00114	0.00602	1	08/23/2017 03:59	WG1012508
Chloroform	U		0.000276	0.00602	1	08/23/2017 03:59	WG1012508
Chloromethane	U		0.000452	0.00301	1	08/23/2017 03:59	WG1012508
2-Chlorotoluene	U		0.000362	0.00120	1	08/23/2017 03:59	WG1012508
4-Chlorotoluene	U		0.000289	0.00120	1	08/23/2017 03:59	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00126	0.00602	1	08/23/2017 03:59	WG1012508
1,2-Dibromoethane	U		0.000413	0.00120	1	08/23/2017 03:59	WG1012508
Dibromomethane	U		0.000460	0.00120	1	08/23/2017 03:59	WG1012508
1,2-Dichlorobenzene	U		0.000367	0.00120	1	08/23/2017 03:59	WG1012508
1,3-Dichlorobenzene	U		0.000288	0.00120	1	08/23/2017 03:59	WG1012508
1,4-Dichlorobenzene	U		0.000272	0.00120	1	08/23/2017 03:59	WG1012508
Dichlorodifluoromethane	U		0.000858	0.00602	1	08/23/2017 03:59	WG1012508
1,1-Dichloroethane	U		0.000240	0.00120	1	08/23/2017 03:59	WG1012508
1,2-Dichloroethane	U		0.000319	0.00120	1	08/23/2017 03:59	WG1012508
1,1-Dichloroethene	U		0.000365	0.00120	1	08/23/2017 03:59	WG1012508
cis-1,2-Dichloroethene	U		0.000283	0.00120	1	08/23/2017 03:59	WG1012508
trans-1,2-Dichloroethene	U		0.000318	0.00120	1	08/23/2017 03:59	WG1012508
1,2-Dichloropropane	U		0.000431	0.00120	1	08/23/2017 03:59	WG1012508
1,1-Dichloropropene	U		0.000382	0.00120	1	08/23/2017 03:59	WG1012508
1,3-Dichloropropane	U		0.000249	0.00120	1	08/23/2017 03:59	WG1012508
cis-1,3-Dichloropropene	U		0.000315	0.00120	1	08/23/2017 03:59	WG1012508
trans-1,3-Dichloropropene	U		0.000321	0.00120	1	08/23/2017 03:59	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000937	0.00301	1	08/23/2017 03:59	WG1012508
2,2-Dichloropropane	U		0.000336	0.00120	1	08/23/2017 03:59	WG1012508
Di-isopropyl ether	U		0.000299	0.00120	1	08/23/2017 03:59	WG1012508
Ethylbenzene	U		0.000358	0.00120	1	08/23/2017 03:59	WG1012508
Hexachloro-1,3-butadiene	U		0.000412	0.00120	1	08/23/2017 03:59	WG1012508
2-Hexanone	U		0.00165	0.0120	1	08/23/2017 03:59	WG1012508
n-Hexane	U		0.000349	0.0120	1	08/23/2017 03:59	WG1012508

6 Qc

7 Gl

8 Al

9 Sc

JC 9/18/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00305	0.0120	1	08/23/2017 03:59	WG1012508
Isopropylbenzene	U		0.000293	0.00120	1	08/23/2017 03:59	WG1012508
p-Isopropyltoluene	U		0.000246	0.00120	1	08/23/2017 03:59	WG1012508
2-Butanone (MEK)	U		0.00563	0.0120	1	08/23/2017 03:59	WG1012508
Methylene Chloride	U		0.00120	0.00602	1	08/23/2017 03:59	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00226	0.0120	1	08/23/2017 03:59	WG1012508
Methyl tert-butyl ether	U		0.000255	0.00120	1	08/23/2017 03:59	WG1012508
Naphthalene	U		0.00120	0.00602	1	08/23/2017 03:59	WG1012508
n-Propylbenzene	U		0.000248	0.00120	1	08/23/2017 03:59	WG1012508
Styrene	U		0.000282	0.00120	1	08/23/2017 03:59	WG1012508
1,1,1-Tetrachloroethane	U		0.000318	0.00120	1	08/23/2017 03:59	WG1012508
1,1,2-Tetrachloroethane	U		0.000439	0.00120	1	08/23/2017 03:59	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000439	0.00120	1	08/23/2017 03:59	WG1012508
Tetrachloroethene	0.000345 J	J	0.000332	0.00120	1	08/23/2017 03:59	WG1012508
Toluene	U		0.000523	0.00602	1	08/23/2017 03:59	WG1012508
1,2,3-Trichlorobenzene	U		0.000368	0.00120	1	08/23/2017 03:59	WG1012508
1,2,4-Trichlorobenzene	U		0.000467	0.00120	1	08/23/2017 03:59	WG1012508
1,1,1-Trichloroethane	U		0.000344	0.00120	1	08/23/2017 03:59	WG1012508
1,1,2-Trichloroethane	U		0.000334	0.00120	1	08/23/2017 03:59	WG1012508
Trichloroethene	U		0.000336	0.00120	1	08/23/2017 03:59	WG1012508
Trichlorofluoromethane	U		0.000460	0.00602	1	08/23/2017 03:59	WG1012508
1,2,3-Trichloropropane	U		0.000892	0.00301	1	08/23/2017 03:59	WG1012508
1,2,4-Trimethylbenzene	U		0.000254	0.00120	1	08/23/2017 03:59	WG1012508
1,2,3-Trimethylbenzene	U		0.000346	0.00120	1	08/23/2017 03:59	WG1012508
1,3,5-Trimethylbenzene	U		0.000320	0.00120	1	08/23/2017 03:59	WG1012508
Vinyl acetate	U		0.00288	0.0120	1	08/23/2017 03:59	WG1012508
Vinyl chloride	U		0.000350	0.00120	1	08/23/2017 03:59	WG1012508
Xylenes, Total	U		0.000840	0.00361	1	08/23/2017 03:59	WG1012508
(S) Toluene-d8	98.0			80.0-120		08/23/2017 03:59	WG1012508
(S) Dibromofluoromethane	101			74.0-131		08/23/2017 03:59	WG1012508
(S) 4-Bromofluorobenzene	96.1			64.0-132		08/23/2017 03:59	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/16/17 11:45

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.0		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.0964	U	0.0368	0.109	1	08/23/2017 18:23	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-120		08/23/2017 18:23	WG1012776

3 Ss

4 Cn

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.272	1.36	25	08/23/2017 18:48	WG1012508
Acrylonitrile	U		0.0487	0.272	25	08/23/2017 18:48	WG1012508
Benzene	U		0.00734	0.0272	25	08/23/2017 18:48	WG1012508
Bromobenzene	U		0.00772	0.0272	25	08/23/2017 18:48	WG1012508
Bromodichloromethane	U		0.00690	0.0272	25	08/23/2017 18:48	WG1012508
Bromochloromethane	U		0.0106	0.136	25	08/23/2017 18:48	WG1012508
Bromoform	U		0.0115	0.0272	25	08/23/2017 18:48	WG1012508
Bromomethane	U		0.0364	0.136	25	08/23/2017 18:48	WG1012508
n-Butylbenzene	U		0.00701	0.0272	25	08/23/2017 18:48	WG1012508
sec-Butylbenzene	U		0.00546	0.0272	25	08/23/2017 18:48	WG1012508
tert-Butylbenzene	U		0.00560	0.0272	25	08/23/2017 18:48	WG1012508
Carbon disulfide	U		0.00600	0.0272	25	08/23/2017 18:48	WG1012508
Carbon tetrachloride	U		0.00891	0.0272	25	08/23/2017 18:48	WG1012508
Chlorobenzene	U		0.00576	0.0272	25	08/23/2017 18:48	WG1012508
Chlorodibromomethane	U		0.0101	0.0272	25	08/23/2017 18:48	WG1012508
Chloroethane	U		0.0256	0.136	25	08/23/2017 18:48	WG1012508
Chloroform	U		0.00622	0.136	25	08/23/2017 18:48	WG1012508
Chloromethane	U		0.0102	0.0679	25	08/23/2017 18:48	WG1012508
2-Chlorotoluene	U		0.00817	0.0272	25	08/23/2017 18:48	WG1012508
4-Chlorotoluene	U		0.00652	0.0272	25	08/23/2017 18:48	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.0285	0.136	25	08/23/2017 18:48	WG1012508
1,2-Dibromoethane	U		0.00933	0.0272	25	08/23/2017 18:48	WG1012508
Dibromomethane	U		0.0104	0.0272	25	08/23/2017 18:48	WG1012508
1,2-Dichlorobenzene	U		0.00828	0.0272	25	08/23/2017 18:48	WG1012508
1,3-Dichlorobenzene	U		0.00650	0.0272	25	08/23/2017 18:48	WG1012508
1,4-Dichlorobenzene	U		0.00614	0.0272	25	08/23/2017 18:48	WG1012508
Dichlorodifluoromethane	U		0.0193	0.136	25	08/23/2017 18:48	WG1012508
1,1-Dichloroethane	U		0.00541	0.0272	25	08/23/2017 18:48	WG1012508
1,2-Dichloroethane	U		0.00719	0.0272	25	08/23/2017 18:48	WG1012508
1,1-Dichloroethene	U		0.00824	0.0272	25	08/23/2017 18:48	WG1012508
cis-1,2-Dichloroethene	U		0.00639	0.0272	25	08/23/2017 18:48	WG1012508
trans-1,2-Dichloroethene	U		0.00717	0.0272	25	08/23/2017 18:48	WG1012508
1,2-Dichloropropane	U		0.00973	0.0272	25	08/23/2017 18:48	WG1012508
1,1-Dichloropropene	U		0.00861	0.0272	25	08/23/2017 18:48	WG1012508
1,3-Dichloropropane	U		0.00563	0.0272	25	08/23/2017 18:48	WG1012508
cis-1,3-Dichloropropene	U		0.00712	0.0272	25	08/23/2017 18:48	WG1012508
trans-1,3-Dichloropropene	U		0.00726	0.0272	25	08/23/2017 18:48	WG1012508
trans-1,4-Dichloro-2-butene	U		0.0211	0.0679	25	08/23/2017 18:48	WG1012508
2,2-Dichloropropane	U		0.00759	0.0272	25	08/23/2017 18:48	WG1012508
Di-isopropyl ether	U		0.00674	0.0272	25	08/23/2017 18:48	WG1012508
Ethylbenzene	U		0.00806	0.0272	25	08/23/2017 18:48	WG1012508
Hexachloro-1,3-butadiene	U		0.00929	0.0272	25	08/23/2017 18:48	WG1012508
2-Hexanone	U		0.0372	0.272	25	08/23/2017 18:48	WG1012508
n-Hexane	U		0.00788	0.272	25	08/23/2017 18:48	WG1012508

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 9/18/17



Collected date/time: 08/16/17 11:45

L930317

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.0687	0.272	25	08/23/2017 18:48	WG1012508
Isopropylbenzene	U		0.00661	0.0272	25	08/23/2017 18:48	WG1012508
p-Isopropyltoluene	U		0.00554	0.0272	25	08/23/2017 18:48	WG1012508
2-Butanone (MEK)	U		0.127	0.272	25	08/23/2017 18:48	WG1012508
Methylene Chloride	U		0.0272	0.136	25	08/23/2017 18:48	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.0511	0.272	25	08/23/2017 18:48	WG1012508
Methyl tert-butyl ether	0.0760		0.00576	0.0272	25	08/23/2017 18:48	WG1012508
Naphthalene	U		0.0272	0.136	25	08/23/2017 18:48	WG1012508
n-Propylbenzene	U		0.00560	0.0272	25	08/23/2017 18:48	WG1012508
Styrene	U		0.00636	0.0272	25	08/23/2017 18:48	WG1012508
1,1,1,2-Tetrachloroethane	U		0.00717	0.0272	25	08/23/2017 18:48	WG1012508
1,1,2,2-Tetrachloroethane	U		0.00991	0.0272	25	08/23/2017 18:48	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.00991	0.0272	25	08/23/2017 18:48	WG1012508
Tetrachloroethene	U		0.00750	0.0272	25	08/23/2017 18:48	WG1012508
Toluene	U		0.0117	0.136	25	08/23/2017 18:48	WG1012508
1,2,3-Trichlorobenzene	U		0.00831	0.0272	25	08/23/2017 18:48	WG1012508
1,2,4-Trichlorobenzene	U		0.0105	0.0272	25	08/23/2017 18:48	WG1012508
1,1,1-Trichloroethane	U		0.00777	0.0272	25	08/23/2017 18:48	WG1012508
1,1,2-Trichloroethane	U		0.00752	0.0272	25	08/23/2017 18:48	WG1012508
Trichloroethene	U		0.00759	0.0272	25	08/23/2017 18:48	WG1012508
Trichlorofluoromethane	U		0.0104	0.136	25	08/23/2017 18:48	WG1012508
1,2,3-Trichloropropane	U		0.0201	0.0679	25	08/23/2017 18:48	WG1012508
1,2,4-Trimethylbenzene	U		0.00574	0.0272	25	08/23/2017 18:48	WG1012508
1,2,3-Trimethylbenzene	U		0.00780	0.0272	25	08/23/2017 18:48	WG1012508
1,3,5-Trimethylbenzene	U		0.00723	0.0272	25	08/23/2017 18:48	WG1012508
Vinyl acetate	U		0.0650	0.272	25	08/23/2017 18:48	WG1012508
Vinyl chloride	U		0.00791	0.0272	25	08/23/2017 18:48	WG1012508
Xylenes, Total	U		0.0189	0.0815	25	08/23/2017 18:48	WG1012508
(S) Toluene-d8	105			80.0-120		08/23/2017 18:48	WG1012508
(S) Dibromofluoromethane	98.1			74.0-131		08/23/2017 18:48	WG1012508
(S) 4-Bromofluorobenzene	100			64.0-132		08/23/2017 18:48	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930317-04 WG1012508: No low level sodium bisulfite vials remaining. Reporting at the lowest possible dilution.

JC 9/18/17



Collected date/time: 08/16/17 14:20

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.9		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.109 U	B J	0.0404	0.119	1	08/23/2017 18:44	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	98.1			77.0-120		08/23/2017 18:44	WG1012776

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0119	0.0596	1	08/23/2017 04:41	WG1012508
Acrylonitrile	U		0.00213	0.0119	1	08/23/2017 04:41	WG1012508
Benzene	U		0.000322	0.00119	1	08/23/2017 04:41	WG1012508
Bromobenzene	U		0.000338	0.00119	1	08/23/2017 04:41	WG1012508
Bromodichloromethane	U		0.000303	0.00119	1	08/23/2017 04:41	WG1012508
Bromochloromethane	U		0.000465	0.00596	1	08/23/2017 04:41	WG1012508
Bromoform	U		0.000505	0.00119	1	08/23/2017 04:41	WG1012508
Bromomethane	U		0.00160	0.00596	1	08/23/2017 04:41	WG1012508
n-Butylbenzene	U		0.000307	0.00119	1	08/23/2017 04:41	WG1012508
sec-Butylbenzene	U		0.000239	0.00119	1	08/23/2017 04:41	WG1012508
tert-Butylbenzene	U		0.000245	0.00119	1	08/23/2017 04:41	WG1012508
Carbon disulfide	U		0.000263	0.00119	1	08/23/2017 04:41	WG1012508
Carbon tetrachloride	U		0.000391	0.00119	1	08/23/2017 04:41	WG1012508
Chlorobenzene	U		0.000253	0.00119	1	08/23/2017 04:41	WG1012508
Chlorodibromomethane	U		0.000444	0.00119	1	08/23/2017 04:41	WG1012508
Chloroethane	U		0.00113	0.00596	1	08/23/2017 04:41	WG1012508
Chloroform	U		0.000273	0.00596	1	08/23/2017 04:41	WG1012508
Chloromethane	U		0.000447	0.00298	1	08/23/2017 04:41	WG1012508
2-Chlorotoluene	U		0.000359	0.00119	1	08/23/2017 04:41	WG1012508
4-Chlorotoluene	U		0.000286	0.00119	1	08/23/2017 04:41	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00125	0.00596	1	08/23/2017 04:41	WG1012508
1,2-Dibromoethane	U		0.000409	0.00119	1	08/23/2017 04:41	WG1012508
Dibromomethane	U		0.000455	0.00119	1	08/23/2017 04:41	WG1012508
1,2-Dichlorobenzene	U		0.000363	0.00119	1	08/23/2017 04:41	WG1012508
1,3-Dichlorobenzene	U		0.000285	0.00119	1	08/23/2017 04:41	WG1012508
1,4-Dichlorobenzene	U		0.000269	0.00119	1	08/23/2017 04:41	WG1012508
Dichlorodifluoromethane	U		0.000849	0.00596	1	08/23/2017 04:41	WG1012508
1,1-Dichloroethane	U		0.000237	0.00119	1	08/23/2017 04:41	WG1012508
1,2-Dichloroethane	U		0.000316	0.00119	1	08/23/2017 04:41	WG1012508
1,1-Dichloroethene	U		0.000361	0.00119	1	08/23/2017 04:41	WG1012508
cis-1,2-Dichloroethene	0.000888 J	J	0.000280	0.00119	1	08/23/2017 04:41	WG1012508
trans-1,2-Dichloroethene	U		0.000314	0.00119	1	08/23/2017 04:41	WG1012508
1,2-Dichloropropane	U		0.000426	0.00119	1	08/23/2017 04:41	WG1012508
1,1-Dichloropropene	U		0.000378	0.00119	1	08/23/2017 04:41	WG1012508
1,3-Dichloropropane	U		0.000247	0.00119	1	08/23/2017 04:41	WG1012508
cis-1,3-Dichloropropene	U		0.000312	0.00119	1	08/23/2017 04:41	WG1012508
trans-1,3-Dichloropropene	U		0.000318	0.00119	1	08/23/2017 04:41	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000927	0.00298	1	08/23/2017 04:41	WG1012508
2,2-Dichloropropane	U		0.000332	0.00119	1	08/23/2017 04:41	WG1012508
Di-isopropyl ether	U		0.000295	0.00119	1	08/23/2017 04:41	WG1012508
Ethylbenzene	U		0.000354	0.00119	1	08/23/2017 04:41	WG1012508
Hexachloro-1,3-butadiene	U		0.000407	0.00119	1	08/23/2017 04:41	WG1012508
2-Hexanone	U		0.00163	0.0119	1	08/23/2017 04:41	WG1012508
n-Hexane	0.00262 J	J	0.000345	0.0119	1	08/23/2017 04:41	WG1012508

6 Qc

7 Gl

8 Al

9 Sc

JC 9/18/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00301	0.0119	1	08/23/2017 04:41	WG1012508
Isopropylbenzene	U		0.000289	0.00119	1	08/23/2017 04:41	WG1012508
p-Isopropyltoluene	U		0.000243	0.00119	1	08/23/2017 04:41	WG1012508
2-Butanone (MEK)	U		0.00558	0.0119	1	08/23/2017 04:41	WG1012508
Methylene Chloride	U		0.00119	0.00596	1	08/23/2017 04:41	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00224	0.0119	1	08/23/2017 04:41	WG1012508
Methyl tert-butyl ether	U		0.000253	0.00119	1	08/23/2017 04:41	WG1012508
Naphthalene	U		0.00119	0.00596	1	08/23/2017 04:41	WG1012508
n-Propylbenzene	U		0.000245	0.00119	1	08/23/2017 04:41	WG1012508
Styrene	U		0.000279	0.00119	1	08/23/2017 04:41	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000314	0.00119	1	08/23/2017 04:41	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000435	0.00119	1	08/23/2017 04:41	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000435	0.00119	1	08/23/2017 04:41	WG1012508
Tetrachloroethene	0.0119		0.000329	0.00119	1	08/23/2017 04:41	WG1012508
Toluene	U		0.000517	0.00596	1	08/23/2017 04:41	WG1012508
1,2,3-Trichlorobenzene	U		0.000365	0.00119	1	08/23/2017 04:41	WG1012508
1,2,4-Trichlorobenzene	U		0.000462	0.00119	1	08/23/2017 04:41	WG1012508
1,1,1-Trichloroethane	U		0.000341	0.00119	1	08/23/2017 04:41	WG1012508
1,1,2-Trichloroethane	U		0.000330	0.00119	1	08/23/2017 04:41	WG1012508
Trichloroethene	0.00354		0.000332	0.00119	1	08/23/2017 04:41	WG1012508
Trichlorofluoromethane	U		0.000455	0.00596	1	08/23/2017 04:41	WG1012508
1,2,3-Trichloropropane	U		0.000883	0.00298	1	08/23/2017 04:41	WG1012508
1,2,4-Trimethylbenzene	U		0.000251	0.00119	1	08/23/2017 04:41	WG1012508
1,2,3-Trimethylbenzene	U		0.000342	0.00119	1	08/23/2017 04:41	WG1012508
1,3,5-Trimethylbenzene	U		0.000317	0.00119	1	08/23/2017 04:41	WG1012508
Vinyl acetate	U		0.00285	0.0119	1	08/23/2017 04:41	WG1012508
Vinyl chloride	U		0.000347	0.00119	1	08/23/2017 04:41	WG1012508
Xylenes, Total	U		0.000832	0.00357	1	08/23/2017 04:41	WG1012508
(S) Toluene-d8	96.9			80.0-120		08/23/2017 04:41	WG1012508
(S) Dibromofluoromethane	101			74.0-131		08/23/2017 04:41	WG1012508
(S) 4-Bromofluorobenzene	97.4			64.0-132		08/23/2017 04:41	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/16/17 15:00

L930317

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.3		1	08/22/2017 10:58	WG1012110

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	15.3	J	0.961	2.83	25	08/24/2017 13:28	WG1012776
(S) a,a,a-Trifluorotoluene(FID)	97.8			77.0-120		08/24/2017 13:28	WG1012776

3 Ss

4 Cn

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0172	J	0.0113	0.0566	1	08/23/2017 05:01	WG1012508
Acrylonitrile	U		0.00203	0.0113	1	08/23/2017 05:01	WG1012508
Benzene	0.00369		0.000306	0.00113	1	08/23/2017 05:01	WG1012508
Bromobenzene	U		0.000322	0.00113	1	08/23/2017 05:01	WG1012508
Bromodichloromethane	U		0.000288	0.00113	1	08/23/2017 05:01	WG1012508
Bromochloromethane	U		0.000442	0.00566	1	08/23/2017 05:01	WG1012508
Bromoform	U		0.000480	0.00113	1	08/23/2017 05:01	WG1012508
Bromomethane	U		0.00152	0.00566	1	08/23/2017 05:01	WG1012508
n-Butylbenzene	0.000535	J	0.000292	0.00113	1	08/23/2017 05:01	WG1012508
sec-Butylbenzene	U		0.000228	0.00113	1	08/23/2017 05:01	WG1012508
tert-Butylbenzene	U		0.000233	0.00113	1	08/23/2017 05:01	WG1012508
Carbon disulfide	U		0.000250	0.00113	1	08/23/2017 05:01	WG1012508
Carbon tetrachloride	U		0.000372	0.00113	1	08/23/2017 05:01	WG1012508
Chlorobenzene	U		0.000240	0.00113	1	08/23/2017 05:01	WG1012508
Chlorodibromomethane	U		0.000423	0.00113	1	08/23/2017 05:01	WG1012508
Chloroethane	U		0.00107	0.00566	1	08/23/2017 05:01	WG1012508
Chloroform	U		0.000259	0.00566	1	08/23/2017 05:01	WG1012508
Chloromethane	U		0.000425	0.00283	1	08/23/2017 05:01	WG1012508
2-Chlorotoluene	U		0.000341	0.00113	1	08/23/2017 05:01	WG1012508
4-Chlorotoluene	U		0.000272	0.00113	1	08/23/2017 05:01	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00119	0.00566	1	08/23/2017 05:01	WG1012508
1,2-Dibromoethane	U		0.000389	0.00113	1	08/23/2017 05:01	WG1012508
Dibromomethane	U		0.000433	0.00113	1	08/23/2017 05:01	WG1012508
1,2-Dichlorobenzene	U		0.000346	0.00113	1	08/23/2017 05:01	WG1012508
1,3-Dichlorobenzene	U		0.000271	0.00113	1	08/23/2017 05:01	WG1012508
1,4-Dichlorobenzene	U		0.000256	0.00113	1	08/23/2017 05:01	WG1012508
Dichlorodifluoromethane	U		0.000808	0.00566	1	08/23/2017 05:01	WG1012508
1,1-Dichloroethane	U		0.000225	0.00113	1	08/23/2017 05:01	WG1012508
1,2-Dichloroethane	U		0.000300	0.00113	1	08/23/2017 05:01	WG1012508
1,1-Dichloroethene	U		0.000343	0.00113	1	08/23/2017 05:01	WG1012508
cis-1,2-Dichloroethene	0.000836	J	0.000266	0.00113	1	08/23/2017 05:01	WG1012508
trans-1,2-Dichloroethene	U		0.000299	0.00113	1	08/23/2017 05:01	WG1012508
1,2-Dichloropropane	U		0.000406	0.00113	1	08/23/2017 05:01	WG1012508
1,1-Dichloropropene	U		0.000359	0.00113	1	08/23/2017 05:01	WG1012508
1,3-Dichloropropane	U		0.000234	0.00113	1	08/23/2017 05:01	WG1012508
cis-1,3-Dichloropropene	U		0.000297	0.00113	1	08/23/2017 05:01	WG1012508
trans-1,3-Dichloropropene	U		0.000302	0.00113	1	08/23/2017 05:01	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000881	0.00283	1	08/23/2017 05:01	WG1012508
2,2-Dichloropropane	U		0.000316	0.00113	1	08/23/2017 05:01	WG1012508
Di-isopropyl ether	U		0.000281	0.00113	1	08/23/2017 05:01	WG1012508
Ethylbenzene	0.00179		0.000336	0.00113	1	08/23/2017 05:01	WG1012508
Hexachloro-1,3-butadiene	U		0.000387	0.00113	1	08/23/2017 05:01	WG1012508
2-Hexanone	U		0.00155	0.0113	1	08/23/2017 05:01	WG1012508
n-Hexane	0.100		0.000329	0.0113	1	08/23/2017 05:01	WG1012508

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 9/18/17



Collected date/time: 08/16/17 15:00

L930317

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00287	0.0113	1	08/23/2017 05:01	WG1012508
Isopropylbenzene	U		0.000275	0.00113	1	08/23/2017 05:01	WG1012508
p-Isopropyltoluene	U		0.000231	0.00113	1	08/23/2017 05:01	WG1012508
2-Butanone (MEK)	0.0156		0.00530	0.0113	1	08/23/2017 05:01	WG1012508
Methylene Chloride	U		0.00113	0.00566	1	08/23/2017 05:01	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00213	0.0113	1	08/23/2017 05:01	WG1012508
Methyl tert-butyl ether	U		0.000240	0.00113	1	08/23/2017 05:01	WG1012508
Naphthalene	U		0.00113	0.00566	1	08/23/2017 05:01	WG1012508
n-Propylbenzene	0.000915 J	U	0.000233	0.00113	1	08/23/2017 05:01	WG1012508
Styrene	0.000429 J	U	0.000265	0.00113	1	08/23/2017 05:01	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000299	0.00113	1	08/23/2017 05:01	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000413	0.00113	1	08/23/2017 05:01	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000413	0.00113	1	08/23/2017 05:01	WG1012508
Tetrachloroethene	0.0107		0.000313	0.00113	1	08/23/2017 05:01	WG1012508
Toluene	0.0119		0.000492	0.00566	1	08/23/2017 05:01	WG1012508
1,2,3-Trichlorobenzene	U		0.000347	0.00113	1	08/23/2017 05:01	WG1012508
1,2,4-Trichlorobenzene	U		0.000440	0.00113	1	08/23/2017 05:01	WG1012508
1,1,1-Trichloroethane	U		0.000324	0.00113	1	08/23/2017 05:01	WG1012508
1,1,2-Trichloroethane	U		0.000314	0.00113	1	08/23/2017 05:01	WG1012508
Trichloroethene	0.000965 J	U	0.000316	0.00113	1	08/23/2017 05:01	WG1012508
Trichlorofluoromethane	U		0.000433	0.00566	1	08/23/2017 05:01	WG1012508
1,2,3-Trichloropropane	U		0.000839	0.00283	1	08/23/2017 05:01	WG1012508
1,2,4-Trimethylbenzene	0.000845 J	U	0.000239	0.00113	1	08/23/2017 05:01	WG1012508
1,2,3-Trimethylbenzene	U		0.000325	0.00113	1	08/23/2017 05:01	WG1012508
1,3,5-Trimethylbenzene	U		0.000301	0.00113	1	08/23/2017 05:01	WG1012508
Vinyl acetate	U		0.00271	0.0113	1	08/23/2017 05:01	WG1012508
Vinyl chloride	U		0.000330	0.00113	1	08/23/2017 05:01	WG1012508
Xylenes, Total	0.00392		0.000791	0.00340	1	08/23/2017 05:01	WG1012508
(S) Toluene-d8	101			80.0-120		08/23/2017 05:01	WG1012508
(S) Dibromofluoromethane	98.8			74.0-131		08/23/2017 05:01	WG1012508
(S) 4-Bromofluorobenzene	99.5			64.0-132		08/23/2017 05:01	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	2210	J	31.6	100	1	08/23/2017 04:12	WG1012440
(S) a,a,a-Trifluorotoluene(FID)	113			77.0-122		08/23/2017 04:12	WG1012440

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	32.2	J	5.25	125	5	08/19/2017 13:35	WG1011540
Acrylonitrile	U		4.36	25.0	5	08/19/2017 13:35	WG1011540
Benzene	64.3		0.448	2.50	5	08/19/2017 13:35	WG1011540
Bromobenzene	U		0.665	2.50	5	08/19/2017 13:35	WG1011540
Bromodichloromethane	U		0.400	2.50	5	08/19/2017 13:35	WG1011540
Bromochloromethane	U		0.725	2.50	5	08/19/2017 13:35	WG1011540
Bromoform	U		0.930	2.50	5	08/19/2017 13:35	WG1011540
Bromomethane	U		0.785	12.5	5	08/19/2017 13:35	WG1011540
n-Butylbenzene	U		0.715	2.50	5	08/19/2017 13:35	WG1011540
sec-Butylbenzene	U		0.670	2.50	5	08/19/2017 13:35	WG1011540
tert-Butylbenzene	U		0.915	2.50	5	08/19/2017 13:35	WG1011540
Carbon disulfide	U		0.505	2.50	5	08/19/2017 13:35	WG1011540
Carbon tetrachloride	U		0.795	2.50	5	08/19/2017 13:35	WG1011540
Chlorobenzene	U		0.700	2.50	5	08/19/2017 13:35	WG1011540
Chlorodibromomethane	U		0.640	2.50	5	08/19/2017 13:35	WG1011540
Chloroethane	1.81	J	0.705	12.5	5	08/19/2017 13:35	WG1011540
Chloroform	U		0.430	2.50	5	08/19/2017 13:35	WG1011540
Chloromethane	55.9		0.765	6.25	5	08/19/2017 13:35	WG1011540
2-Chlorotoluene	U		0.555	2.50	5	08/19/2017 13:35	WG1011540
4-Chlorotoluene	U		0.486	2.50	5	08/19/2017 13:35	WG1011540
1,2-Dibromo-3-Chloropropane	U		1.62	12.5	5	08/19/2017 13:35	WG1011540
1,2-Dibromoethane	U		0.965	2.50	5	08/19/2017 13:35	WG1011540
Dibromomethane	U		0.585	2.50	5	08/19/2017 13:35	WG1011540
1,2-Dichlorobenzene	U		0.505	2.50	5	08/19/2017 13:35	WG1011540
1,3-Dichlorobenzene	U		0.650	2.50	5	08/19/2017 13:35	WG1011540
1,4-Dichlorobenzene	U		0.605	2.50	5	08/19/2017 13:35	WG1011540
Dichlorodifluoromethane	U		0.635	12.5	5	08/19/2017 13:35	WG1011540
1,1-Dichloroethane	U		0.570	2.50	5	08/19/2017 13:35	WG1011540
1,2-Dichloroethane	U		0.540	2.50	5	08/19/2017 13:35	WG1011540
1,1-Dichloroethene	U		0.940	2.50	5	08/19/2017 13:35	WG1011540
cis-1,2-Dichloroethene	22.2		0.466	2.50	5	08/19/2017 13:35	WG1011540
trans-1,2-Dichloroethene	U		0.760	2.50	5	08/19/2017 13:35	WG1011540
1,2-Dichloropropane	U		0.950	2.50	5	08/19/2017 13:35	WG1011540
1,1-Dichloropropene	U		0.640	2.50	5	08/19/2017 13:35	WG1011540
1,3-Dichloropropane	U		0.735	5.00	5	08/19/2017 13:35	WG1011540
cis-1,3-Dichloropropene	U		0.488	2.50	5	08/19/2017 13:35	WG1011540
trans-1,3-Dichloropropene	U		1.11	2.50	5	08/19/2017 13:35	WG1011540
trans-1,4-Dichloro-2-butene	U		1.28	25.0	5	08/19/2017 13:35	WG1011540
2,2-Dichloropropane	U		0.464	2.50	5	08/19/2017 13:35	WG1011540
Di-isopropyl ether	U		0.462	2.50	5	08/19/2017 13:35	WG1011540
Ethylbenzene	1.44	J	0.790	2.50	5	08/19/2017 13:35	WG1011540
Hexachloro-1,3-butadiene	U		0.785	5.00	5	08/19/2017 13:35	WG1011540
2-Hexanone	18.6	J	3.78	25.0	5	08/19/2017 13:35	WG1011540
n-Hexane	2.91	J	1.52	25.0	5	08/19/2017 13:35	WG1011540
Iodomethane	U		1.88	50.0	5	08/19/2017 13:35	WG1011540
Isopropylbenzene	U		0.630	2.50	5	08/19/2017 13:35	WG1011540
p-Isopropyltoluene	U		0.690	2.50	5	08/19/2017 13:35	WG1011540
2-Butanone (MEK)	13.6	J	6.40	25.0	5	08/19/2017 13:35	WG1011540

JC 9/18/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		5.35	12.5	5	08/19/2017 13:35	WG1011540
4-Methyl-2-pentanone (MIBK)	U		4.12	25.0	5	08/19/2017 13:35	WG1011540
Methyl tert-butyl ether	U		0.510	2.50	5	08/19/2017 13:35	WG1011540
Naphthalene	2.88	U BJ	0.870	12.5	5	08/19/2017 13:35	WG1011540
n-Propylbenzene	U		0.810	2.50	5	08/19/2017 13:35	WG1011540
Styrene	U		0.585	2.50	5	08/19/2017 13:35	WG1011540
1,1,1,2-Tetrachloroethane	U		0.600	2.50	5	08/19/2017 13:35	WG1011540
1,1,2,2-Tetrachloroethane	U		0.650	2.50	5	08/19/2017 13:35	WG1011540
1,1,2-Trichlorotrifluoroethane	U		0.820	2.50	5	08/19/2017 13:35	WG1011540
Tetrachloroethene	413		0.995	2.50	5	08/19/2017 13:35	WG1011540
Toluene	711		2.06	2.50	5	08/19/2017 13:35	WG1011540
1,2,3-Trichlorobenzene	U		0.820	2.50	5	08/19/2017 13:35	WG1011540
1,2,4-Trichlorobenzene	U		1.78	2.50	5	08/19/2017 13:35	WG1011540
1,1,1-Trichloroethane	U		0.470	2.50	5	08/19/2017 13:35	WG1011540
1,1,2-Trichloroethane	U		0.930	2.50	5	08/19/2017 13:35	WG1011540
Trichloroethene	34.4		0.765	2.50	5	08/19/2017 13:35	WG1011540
Trichlorofluoromethane	U		0.650	12.5	5	08/19/2017 13:35	WG1011540
1,2,3-Trichloropropane	U		1.24	12.5	5	08/19/2017 13:35	WG1011540
1,2,4-Trimethylbenzene	0.746	U BJ	0.615	2.50	5	08/19/2017 13:35	WG1011540
1,2,3-Trimethylbenzene	U		0.370	2.50	5	08/19/2017 13:35	WG1011540
1,3,5-Trimethylbenzene	U		0.620	2.50	5	08/19/2017 13:35	WG1011540
Vinyl acetate	U		3.22	25.0	5	08/19/2017 13:35	WG1011540
Vinyl chloride	1.56	J U	0.590	2.50	5	08/19/2017 13:35	WG1011540
Xylenes, Total	2.92	J U	1.58	7.50	5	08/19/2017 13:35	WG1011540
(S) Toluene-d8	109			80.0-120		08/19/2017 13:35	WG1011540
(S) Dibromofluoromethane	96.0			76.0-123		08/19/2017 13:35	WG1011540
(S) 4-Bromofluorobenzene	107			80.0-120		08/19/2017 13:35	WG1011540

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 03/27/17 00:00

L930317

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/22/2017 21:07	WG1012440
(S) a,a,a-Trifluorotoluene(FID)	97.8			77.0-122		08/22/2017 21:07	WG1012440

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	08/19/2017 11:36	WG1011540
Acrylonitrile	U		0.873	5.00	1	08/19/2017 11:36	WG1011540
Benzene	U		0.0896	0.500	1	08/19/2017 11:36	WG1011540
Bromobenzene	U		0.133	0.500	1	08/19/2017 11:36	WG1011540
Bromodichloromethane	U		0.0800	0.500	1	08/19/2017 11:36	WG1011540
Bromochloromethane	U		0.145	0.500	1	08/19/2017 11:36	WG1011540
Bromoform	U		0.186	0.500	1	08/19/2017 11:36	WG1011540
Bromomethane	U		0.157	2.50	1	08/19/2017 11:36	WG1011540
n-Butylbenzene	U		0.143	0.500	1	08/19/2017 11:36	WG1011540
sec-Butylbenzene	U		0.134	0.500	1	08/19/2017 11:36	WG1011540
tert-Butylbenzene	U		0.183	0.500	1	08/19/2017 11:36	WG1011540
Carbon disulfide	U		0.101	0.500	1	08/19/2017 11:36	WG1011540
Carbon tetrachloride	U		0.159	0.500	1	08/19/2017 11:36	WG1011540
Chlorobenzene	U		0.140	0.500	1	08/19/2017 11:36	WG1011540
Chlorodibromomethane	U		0.128	0.500	1	08/19/2017 11:36	WG1011540
Chloroethane	U		0.141	2.50	1	08/19/2017 11:36	WG1011540
Chloroform	U		0.0860	0.500	1	08/19/2017 11:36	WG1011540
Chloromethane	U		0.153	1.25	1	08/19/2017 11:36	WG1011540
2-Chlorotoluene	U		0.111	0.500	1	08/19/2017 11:36	WG1011540
4-Chlorotoluene	U		0.0972	0.500	1	08/19/2017 11:36	WG1011540
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/19/2017 11:36	WG1011540
1,2-Dibromoethane	U		0.193	0.500	1	08/19/2017 11:36	WG1011540
Dibromomethane	U		0.117	0.500	1	08/19/2017 11:36	WG1011540
1,2-Dichlorobenzene	U		0.101	0.500	1	08/19/2017 11:36	WG1011540
1,3-Dichlorobenzene	U		0.130	0.500	1	08/19/2017 11:36	WG1011540
1,4-Dichlorobenzene	U		0.121	0.500	1	08/19/2017 11:36	WG1011540
Dichlorodifluoromethane	U		0.127	2.50	1	08/19/2017 11:36	WG1011540
1,1-Dichloroethane	U		0.114	0.500	1	08/19/2017 11:36	WG1011540
1,2-Dichloroethane	U		0.108	0.500	1	08/19/2017 11:36	WG1011540
1,1-Dichloroethene	U		0.188	0.500	1	08/19/2017 11:36	WG1011540
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/19/2017 11:36	WG1011540
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/19/2017 11:36	WG1011540
1,2-Dichloropropane	U		0.190	0.500	1	08/19/2017 11:36	WG1011540
1,1-Dichloropropene	U		0.128	0.500	1	08/19/2017 11:36	WG1011540
1,3-Dichloropropane	U		0.147	1.00	1	08/19/2017 11:36	WG1011540
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/19/2017 11:36	WG1011540
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/19/2017 11:36	WG1011540
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/19/2017 11:36	WG1011540
2,2-Dichloropropane	U		0.0929	0.500	1	08/19/2017 11:36	WG1011540
Di-isopropyl ether	U		0.0924	0.500	1	08/19/2017 11:36	WG1011540
Ethylbenzene	U		0.158	0.500	1	08/19/2017 11:36	WG1011540
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/19/2017 11:36	WG1011540
2-Hexanone	U		0.757	5.00	1	08/19/2017 11:36	WG1011540
n-Hexane	U		0.305	5.00	1	08/19/2017 11:36	WG1011540
Iodomethane	U		0.377	10.0	1	08/19/2017 11:36	WG1011540
Isopropylbenzene	U		0.126	0.500	1	08/19/2017 11:36	WG1011540
p-Isopropyltoluene	U		0.138	0.500	1	08/19/2017 11:36	WG1011540
2-Butanone (MEK)	U		1.28	5.00	1	08/19/2017 11:36	WG1011540

JC 9/18/17



Collected date/time: 03/27/17 00:00

L930317

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	08/19/2017 11:36	WG1011540
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/19/2017 11:36	WG1011540
Methyl tert-butyl ether	U		0.102	0.500	1	08/19/2017 11:36	WG1011540
Naphthalene	0.211	<u>BJ</u>	0.174	2.50	1	08/19/2017 11:36	WG1011540
n-Propylbenzene	U		0.162	0.500	1	08/19/2017 11:36	WG1011540
Styrene	U		0.117	0.500	1	08/19/2017 11:36	WG1011540
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/19/2017 11:36	WG1011540
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/19/2017 11:36	WG1011540
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/19/2017 11:36	WG1011540
Tetrachloroethene	U		0.199	0.500	1	08/19/2017 11:36	WG1011540
Toluene	U		0.412	0.500	1	08/19/2017 11:36	WG1011540
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/19/2017 11:36	WG1011540
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/19/2017 11:36	WG1011540
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/19/2017 11:36	WG1011540
1,1,2-Trichloroethane	U		0.186	0.500	1	08/19/2017 11:36	WG1011540
Trichloroethene	U		0.153	0.500	1	08/19/2017 11:36	WG1011540
Trichlorofluoromethane	U		0.130	2.50	1	08/19/2017 11:36	WG1011540
1,2,3-Trichloropropane	U		0.247	2.50	1	08/19/2017 11:36	WG1011540
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/19/2017 11:36	WG1011540
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/19/2017 11:36	WG1011540
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/19/2017 11:36	WG1011540
Vinyl acetate	U		0.645	5.00	1	08/19/2017 11:36	WG1011540
Vinyl chloride	U		0.118	0.500	1	08/19/2017 11:36	WG1011540
Xylenes, Total	U		0.316	1.50	1	08/19/2017 11:36	WG1011540
(S) Toluene-d8	109			80.0-120		08/19/2017 11:36	WG1011540
(S) Dibromofluoromethane	98.2			76.0-123		08/19/2017 11:36	WG1011540
(S) 4-Bromofluorobenzene	101			80.0-120		08/19/2017 11:36	WG1011540

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/18/17

August 25, 2017

PES Environmental, Inc.- WA

Sample Delivery Group: L930670
Samples Received: 08/18/2017
Project Number: 1413.001.02.602
Description: American Linen Project
Site: 1413.001.02.602
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161











Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



MW-133-141 L930670-01 Solid

Collected by
Shannon McKernan

Collected date/time
08/16/17 17:10

Received date/time
08/18/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012135	1	08/22/17 08:16	08/22/17 08:23	MLW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1012852	25	08/16/17 17:10	08/24/17 18:49	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/16/17 17:10	08/23/17 19:09	ACG

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

B-211-20 L930670-02 Solid

Collected by
Shannon McKernan

Collected date/time
08/17/17 11:55

Received date/time
08/18/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012647	1	08/23/17 10:35	08/23/17 10:38	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/17/17 11:55	08/23/17 07:46	ACG

B-211-35 L930670-03 Solid

Collected by
Shannon McKernan

Collected date/time
08/17/17 13:10

Received date/time
08/18/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012647	1	08/23/17 10:35	08/23/17 10:38	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/17/17 13:10	08/23/17 08:07	ACG

B-211-50 L930670-04 Solid

Collected by
Shannon McKernan

Collected date/time
08/17/17 15:35

Received date/time
08/18/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1012652	1	08/23/17 09:39	08/23/17 09:43	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012508	1	08/17/17 15:35	08/23/17 08:27	ACG



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.8		1	08/22/2017 08:23	WG1012135

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.955	2.82	25	08/24/2017 18:49	WG1012852
(S) a,a,a-Trifluorotoluene(FID)	99.8			77.0-120		08/24/2017 18:49	WG1012852

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0563	1	08/23/2017 19:09	WG1012508
Acrylonitrile	U		0.00202	0.0113	1	08/23/2017 19:09	WG1012508
Benzene	0.000766	J	0.000304	0.00113	1	08/23/2017 19:09	WG1012508
Bromobenzene	U		0.000320	0.00113	1	08/23/2017 19:09	WG1012508
Bromodichloromethane	U		0.000286	0.00113	1	08/23/2017 19:09	WG1012508
Bromochloromethane	U		0.000439	0.00563	1	08/23/2017 19:09	WG1012508
Bromoform	U		0.000478	0.00113	1	08/23/2017 19:09	WG1012508
Bromomethane	U		0.00151	0.00563	1	08/23/2017 19:09	WG1012508
n-Butylbenzene	U		0.000291	0.00113	1	08/23/2017 19:09	WG1012508
sec-Butylbenzene	U		0.000226	0.00113	1	08/23/2017 19:09	WG1012508
tert-Butylbenzene	U		0.000232	0.00113	1	08/23/2017 19:09	WG1012508
Carbon disulfide	0.00232		0.000249	0.00113	1	08/23/2017 19:09	WG1012508
Carbon tetrachloride	U		0.000369	0.00113	1	08/23/2017 19:09	WG1012508
Chlorobenzene	U		0.000239	0.00113	1	08/23/2017 19:09	WG1012508
Chlorodibromomethane	U		0.000420	0.00113	1	08/23/2017 19:09	WG1012508
Chloroethane	U		0.00107	0.00563	1	08/23/2017 19:09	WG1012508
Chloroform	U		0.000258	0.00563	1	08/23/2017 19:09	WG1012508
Chloromethane	U		0.000422	0.00282	1	08/23/2017 19:09	WG1012508
2-Chlorotoluene	U		0.000339	0.00113	1	08/23/2017 19:09	WG1012508
4-Chlorotoluene	U		0.000270	0.00113	1	08/23/2017 19:09	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00118	0.00563	1	08/23/2017 19:09	WG1012508
1,2-Dibromoethane	U		0.000386	0.00113	1	08/23/2017 19:09	WG1012508
Dibromomethane	U		0.000430	0.00113	1	08/23/2017 19:09	WG1012508
1,2-Dichlorobenzene	U		0.000343	0.00113	1	08/23/2017 19:09	WG1012508
1,3-Dichlorobenzene	U		0.000269	0.00113	1	08/23/2017 19:09	WG1012508
1,4-Dichlorobenzene	U		0.000255	0.00113	1	08/23/2017 19:09	WG1012508
Dichlorodifluoromethane	U		0.000803	0.00563	1	08/23/2017 19:09	WG1012508
1,1-Dichloroethane	U		0.000224	0.00113	1	08/23/2017 19:09	WG1012508
1,2-Dichloroethane	U		0.000298	0.00113	1	08/23/2017 19:09	WG1012508
1,1-Dichloroethene	U		0.000341	0.00113	1	08/23/2017 19:09	WG1012508
cis-1,2-Dichloroethene	U		0.000265	0.00113	1	08/23/2017 19:09	WG1012508
trans-1,2-Dichloroethene	U		0.000297	0.00113	1	08/23/2017 19:09	WG1012508
1,2-Dichloropropane	U		0.000403	0.00113	1	08/23/2017 19:09	WG1012508
1,1-Dichloropropene	U		0.000357	0.00113	1	08/23/2017 19:09	WG1012508
1,3-Dichloropropane	U		0.000233	0.00113	1	08/23/2017 19:09	WG1012508
cis-1,3-Dichloropropene	U		0.000295	0.00113	1	08/23/2017 19:09	WG1012508
trans-1,3-Dichloropropene	U		0.000301	0.00113	1	08/23/2017 19:09	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000876	0.00282	1	08/23/2017 19:09	WG1012508
2,2-Dichloropropane	U		0.000314	0.00113	1	08/23/2017 19:09	WG1012508
Di-isopropyl ether	U		0.000279	0.00113	1	08/23/2017 19:09	WG1012508
Ethylbenzene	U		0.000334	0.00113	1	08/23/2017 19:09	WG1012508
Hexachloro-1,3-butadiene	U		0.000385	0.00113	1	08/23/2017 19:09	WG1012508
2-Hexanone	U		0.00154	0.0113	1	08/23/2017 19:09	WG1012508
n-Hexane	0.0113		0.000327	0.0113	1	08/23/2017 19:09	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00285	0.0113	1	08/23/2017 19:09	WG1012508
Isopropylbenzene	U		0.000274	0.00113	1	08/23/2017 19:09	WG1012508
p-Isopropyltoluene	U		0.000230	0.00113	1	08/23/2017 19:09	WG1012508
2-Butanone (MEK)	U		0.00527	0.0113	1	08/23/2017 19:09	WG1012508
Methylene Chloride	U		0.00113	0.00563	1	08/23/2017 19:09	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00212	0.0113	1	08/23/2017 19:09	WG1012508
Methyl tert-butyl ether	U		0.000239	0.00113	1	08/23/2017 19:09	WG1012508
Naphthalene	U		0.00113	0.00563	1	08/23/2017 19:09	WG1012508
n-Propylbenzene	U		0.000232	0.00113	1	08/23/2017 19:09	WG1012508
Styrene	U		0.000264	0.00113	1	08/23/2017 19:09	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000297	0.00113	1	08/23/2017 19:09	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000411	0.00113	1	08/23/2017 19:09	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000411	0.00113	1	08/23/2017 19:09	WG1012508
Tetrachloroethene	U		0.000311	0.00113	1	08/23/2017 19:09	WG1012508
Toluene	U		0.000489	0.00563	1	08/23/2017 19:09	WG1012508
1,2,3-Trichlorobenzene	U		0.000345	0.00113	1	08/23/2017 19:09	WG1012508
1,2,4-Trichlorobenzene	U		0.000437	0.00113	1	08/23/2017 19:09	WG1012508
1,1,1-Trichloroethane	U		0.000322	0.00113	1	08/23/2017 19:09	WG1012508
1,1,2-Trichloroethane	U		0.000312	0.00113	1	08/23/2017 19:09	WG1012508
Trichloroethene	U		0.000314	0.00113	1	08/23/2017 19:09	WG1012508
Trichlorofluoromethane	U		0.000430	0.00563	1	08/23/2017 19:09	WG1012508
1,2,3-Trichloropropane	U		0.000835	0.00282	1	08/23/2017 19:09	WG1012508
1,2,4-Trimethylbenzene	U		0.000238	0.00113	1	08/23/2017 19:09	WG1012508
1,2,3-Trimethylbenzene	U		0.000323	0.00113	1	08/23/2017 19:09	WG1012508
1,3,5-Trimethylbenzene	U		0.000300	0.00113	1	08/23/2017 19:09	WG1012508
Vinyl acetate	U		0.00269	0.0113	1	08/23/2017 19:09	WG1012508
Vinyl chloride	U		0.000328	0.00113	1	08/23/2017 19:09	WG1012508
Xylenes, Total	U		0.000786	0.00338	1	08/23/2017 19:09	WG1012508
(S) Toluene-d8	97.9			80.0-120		08/23/2017 19:09	WG1012508
(S) Dibromofluoromethane	106			74.0-131		08/23/2017 19:09	WG1012508
(S) 4-Bromofluorobenzene	96.7			64.0-132		08/23/2017 19:09	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.6		1	08/23/2017 10:38	WG1012647

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0112	0.0558	1	08/23/2017 07:46	WG1012508
Acrylonitrile	U		0.00200	0.0112	1	08/23/2017 07:46	WG1012508
Benzene	U		0.000301	0.00112	1	08/23/2017 07:46	WG1012508
Bromobenzene	U		0.000317	0.00112	1	08/23/2017 07:46	WG1012508
Bromodichloromethane	U		0.000284	0.00112	1	08/23/2017 07:46	WG1012508
Bromochloromethane	U		0.000435	0.00558	1	08/23/2017 07:46	WG1012508
Bromoform	U		0.000473	0.00112	1	08/23/2017 07:46	WG1012508
Bromomethane	U		0.00150	0.00558	1	08/23/2017 07:46	WG1012508
n-Butylbenzene	U		0.000288	0.00112	1	08/23/2017 07:46	WG1012508
sec-Butylbenzene	U		0.000224	0.00112	1	08/23/2017 07:46	WG1012508
tert-Butylbenzene	U		0.000230	0.00112	1	08/23/2017 07:46	WG1012508
Carbon disulfide	U		0.000247	0.00112	1	08/23/2017 07:46	WG1012508
Carbon tetrachloride	U		0.000366	0.00112	1	08/23/2017 07:46	WG1012508
Chlorobenzene	U		0.000237	0.00112	1	08/23/2017 07:46	WG1012508
Chlorodibromomethane	U		0.000416	0.00112	1	08/23/2017 07:46	WG1012508
Chloroethane	U		0.00106	0.00558	1	08/23/2017 07:46	WG1012508
Chloroform	U		0.000256	0.00558	1	08/23/2017 07:46	WG1012508
Chloromethane	U		0.000419	0.00279	1	08/23/2017 07:46	WG1012508
2-Chlorotoluene	U		0.000336	0.00112	1	08/23/2017 07:46	WG1012508
4-Chlorotoluene	U		0.000268	0.00112	1	08/23/2017 07:46	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00558	1	08/23/2017 07:46	WG1012508
1,2-Dibromoethane	U		0.000383	0.00112	1	08/23/2017 07:46	WG1012508
Dibromomethane	U		0.000427	0.00112	1	08/23/2017 07:46	WG1012508
1,2-Dichlorobenzene	U		0.000341	0.00112	1	08/23/2017 07:46	WG1012508
1,3-Dichlorobenzene	U		0.000267	0.00112	1	08/23/2017 07:46	WG1012508
1,4-Dichlorobenzene	U		0.000252	0.00112	1	08/23/2017 07:46	WG1012508
Dichlorodifluoromethane	U		0.000796	0.00558	1	08/23/2017 07:46	WG1012508
1,1-Dichloroethane	U		0.000222	0.00112	1	08/23/2017 07:46	WG1012508
1,2-Dichloroethane	U		0.000296	0.00112	1	08/23/2017 07:46	WG1012508
1,1-Dichloroethene	0.000862	J	0.000338	0.00112	1	08/23/2017 07:46	WG1012508
cis-1,2-Dichloroethene	0.0282		0.000262	0.00112	1	08/23/2017 07:46	WG1012508
trans-1,2-Dichloroethene	0.00109	J	0.000295	0.00112	1	08/23/2017 07:46	WG1012508
1,2-Dichloropropane	U		0.000400	0.00112	1	08/23/2017 07:46	WG1012508
1,1-Dichloropropene	U		0.000354	0.00112	1	08/23/2017 07:46	WG1012508
1,3-Dichloropropane	U		0.000231	0.00112	1	08/23/2017 07:46	WG1012508
cis-1,3-Dichloropropene	U		0.000293	0.00112	1	08/23/2017 07:46	WG1012508
trans-1,3-Dichloropropene	U		0.000298	0.00112	1	08/23/2017 07:46	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000869	0.00279	1	08/23/2017 07:46	WG1012508
2,2-Dichloropropane	U		0.000312	0.00112	1	08/23/2017 07:46	WG1012508
Di-isopropyl ether	U		0.000277	0.00112	1	08/23/2017 07:46	WG1012508
Ethylbenzene	U		0.000332	0.00112	1	08/23/2017 07:46	WG1012508
Hexachloro-1,3-butadiene	U		0.000382	0.00112	1	08/23/2017 07:46	WG1012508
2-Hexanone	U		0.00153	0.0112	1	08/23/2017 07:46	WG1012508
n-Hexane	U		0.000324	0.0112	1	08/23/2017 07:46	WG1012508
Iodomethane	U		0.00282	0.0112	1	08/23/2017 07:46	WG1012508
Isopropylbenzene	U		0.000271	0.00112	1	08/23/2017 07:46	WG1012508
p-Isopropyltoluene	U		0.000228	0.00112	1	08/23/2017 07:46	WG1012508
2-Butanone (MEK)	U		0.00523	0.0112	1	08/23/2017 07:46	WG1012508
Methylene Chloride	U		0.00112	0.00558	1	08/23/2017 07:46	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00210	0.0112	1	08/23/2017 07:46	WG1012508

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000237	0.00112	1	08/23/2017 07:46	WG1012508
Naphthalene	U		0.00112	0.00558	1	08/23/2017 07:46	WG1012508
n-Propylbenzene	U		0.000230	0.00112	1	08/23/2017 07:46	WG1012508
Styrene	U		0.000261	0.00112	1	08/23/2017 07:46	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000295	0.00112	1	08/23/2017 07:46	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000408	0.00112	1	08/23/2017 07:46	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000408	0.00112	1	08/23/2017 07:46	WG1012508
Tetrachloroethene	0.0153		0.000308	0.00112	1	08/23/2017 07:46	WG1012508
Toluene	U		0.000485	0.00558	1	08/23/2017 07:46	WG1012508
1,2,3-Trichlorobenzene	U		0.000342	0.00112	1	08/23/2017 07:46	WG1012508
1,2,4-Trichlorobenzene	U		0.000433	0.00112	1	08/23/2017 07:46	WG1012508
1,1,1-Trichloroethane	U		0.000319	0.00112	1	08/23/2017 07:46	WG1012508
1,1,2-Trichloroethane	U		0.000309	0.00112	1	08/23/2017 07:46	WG1012508
Trichloroethene	0.0202		0.000312	0.00112	1	08/23/2017 07:46	WG1012508
Trichlorofluoromethane	U		0.000427	0.00558	1	08/23/2017 07:46	WG1012508
1,2,3-Trichloropropane	U		0.000827	0.00279	1	08/23/2017 07:46	WG1012508
1,2,4-Trimethylbenzene	U		0.000236	0.00112	1	08/23/2017 07:46	WG1012508
1,2,3-Trimethylbenzene	U		0.000320	0.00112	1	08/23/2017 07:46	WG1012508
1,3,5-Trimethylbenzene	U		0.000297	0.00112	1	08/23/2017 07:46	WG1012508
Vinyl acetate	U		0.00267	0.0112	1	08/23/2017 07:46	WG1012508
Vinyl chloride	0.000723	J	0.000325	0.00112	1	08/23/2017 07:46	WG1012508
Xylenes, Total	U		0.000779	0.00335	1	08/23/2017 07:46	WG1012508
(S) Toluene-d8	98.0			80.0-120		08/23/2017 07:46	WG1012508
(S) Dibromofluoromethane	103			74.0-131		08/23/2017 07:46	WG1012508
(S) 4-Bromofluorobenzene	96.0			64.0-132		08/23/2017 07:46	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.8		1	08/23/2017 10:38	WG1012647

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0563	1	08/23/2017 08:07	WG1012508
Acrylonitrile	U		0.00201	0.0113	1	08/23/2017 08:07	WG1012508
Benzene	U		0.000304	0.00113	1	08/23/2017 08:07	WG1012508
Bromobenzene	U		0.000320	0.00113	1	08/23/2017 08:07	WG1012508
Bromodichloromethane	U		0.000286	0.00113	1	08/23/2017 08:07	WG1012508
Bromochloromethane	U		0.000439	0.00563	1	08/23/2017 08:07	WG1012508
Bromoform	U		0.000477	0.00113	1	08/23/2017 08:07	WG1012508
Bromomethane	U		0.00151	0.00563	1	08/23/2017 08:07	WG1012508
n-Butylbenzene	U		0.000290	0.00113	1	08/23/2017 08:07	WG1012508
sec-Butylbenzene	U		0.000226	0.00113	1	08/23/2017 08:07	WG1012508
tert-Butylbenzene	U		0.000232	0.00113	1	08/23/2017 08:07	WG1012508
Carbon disulfide	0.000481	J	0.000249	0.00113	1	08/23/2017 08:07	WG1012508
Carbon tetrachloride	U		0.000369	0.00113	1	08/23/2017 08:07	WG1012508
Chlorobenzene	U		0.000239	0.00113	1	08/23/2017 08:07	WG1012508
Chlorodibromomethane	U		0.000420	0.00113	1	08/23/2017 08:07	WG1012508
Chloroethane	U		0.00106	0.00563	1	08/23/2017 08:07	WG1012508
Chloroform	U		0.000258	0.00563	1	08/23/2017 08:07	WG1012508
Chloromethane	U		0.000422	0.00281	1	08/23/2017 08:07	WG1012508
2-Chlorotoluene	U		0.000339	0.00113	1	08/23/2017 08:07	WG1012508
4-Chlorotoluene	U		0.000270	0.00113	1	08/23/2017 08:07	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00118	0.00563	1	08/23/2017 08:07	WG1012508
1,2-Dibromoethane	U		0.000386	0.00113	1	08/23/2017 08:07	WG1012508
Dibromomethane	U		0.000430	0.00113	1	08/23/2017 08:07	WG1012508
1,2-Dichlorobenzene	U		0.000343	0.00113	1	08/23/2017 08:07	WG1012508
1,3-Dichlorobenzene	U		0.000269	0.00113	1	08/23/2017 08:07	WG1012508
1,4-Dichlorobenzene	U		0.000254	0.00113	1	08/23/2017 08:07	WG1012508
Dichlorodifluoromethane	U		0.000803	0.00563	1	08/23/2017 08:07	WG1012508
1,1-Dichloroethane	U		0.000224	0.00113	1	08/23/2017 08:07	WG1012508
1,2-Dichloroethane	U		0.000298	0.00113	1	08/23/2017 08:07	WG1012508
1,1-Dichloroethene	U		0.000341	0.00113	1	08/23/2017 08:07	WG1012508
cis-1,2-Dichloroethene	0.00104	J	0.000265	0.00113	1	08/23/2017 08:07	WG1012508
trans-1,2-Dichloroethene	U		0.000297	0.00113	1	08/23/2017 08:07	WG1012508
1,2-Dichloropropane	U		0.000403	0.00113	1	08/23/2017 08:07	WG1012508
1,1-Dichloropropene	U		0.000357	0.00113	1	08/23/2017 08:07	WG1012508
1,3-Dichloropropane	U		0.000233	0.00113	1	08/23/2017 08:07	WG1012508
cis-1,3-Dichloropropene	U		0.000295	0.00113	1	08/23/2017 08:07	WG1012508
trans-1,3-Dichloropropene	U		0.000301	0.00113	1	08/23/2017 08:07	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000876	0.00281	1	08/23/2017 08:07	WG1012508
2,2-Dichloropropane	U		0.000314	0.00113	1	08/23/2017 08:07	WG1012508
Di-isopropyl ether	U		0.000279	0.00113	1	08/23/2017 08:07	WG1012508
Ethylbenzene	U		0.000334	0.00113	1	08/23/2017 08:07	WG1012508
Hexachloro-1,3-butadiene	U		0.000385	0.00113	1	08/23/2017 08:07	WG1012508
2-Hexanone	U		0.00154	0.0113	1	08/23/2017 08:07	WG1012508
n-Hexane	0.000482	J	0.000326	0.0113	1	08/23/2017 08:07	WG1012508
Iodomethane	U		0.00285	0.0113	1	08/23/2017 08:07	WG1012508
Isopropylbenzene	U		0.000274	0.00113	1	08/23/2017 08:07	WG1012508
p-Isopropyltoluene	U		0.000230	0.00113	1	08/23/2017 08:07	WG1012508
2-Butanone (MEK)	U		0.00527	0.0113	1	08/23/2017 08:07	WG1012508
Methylene Chloride	U		0.00113	0.00563	1	08/23/2017 08:07	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00212	0.0113	1	08/23/2017 08:07	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000239	0.00113	1	08/23/2017 08:07	WG1012508
Naphthalene	U		0.00113	0.00563	1	08/23/2017 08:07	WG1012508
n-Propylbenzene	U		0.000232	0.00113	1	08/23/2017 08:07	WG1012508
Styrene	U		0.000263	0.00113	1	08/23/2017 08:07	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000297	0.00113	1	08/23/2017 08:07	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000411	0.00113	1	08/23/2017 08:07	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000411	0.00113	1	08/23/2017 08:07	WG1012508
Tetrachloroethene	0.000805	J	0.000311	0.00113	1	08/23/2017 08:07	WG1012508
Toluene	U		0.000489	0.00563	1	08/23/2017 08:07	WG1012508
1,2,3-Trichlorobenzene	U		0.000344	0.00113	1	08/23/2017 08:07	WG1012508
1,2,4-Trichlorobenzene	U		0.000437	0.00113	1	08/23/2017 08:07	WG1012508
1,1,1-Trichloroethane	U		0.000322	0.00113	1	08/23/2017 08:07	WG1012508
1,1,2-Trichloroethane	U		0.000312	0.00113	1	08/23/2017 08:07	WG1012508
Trichloroethene	U		0.000314	0.00113	1	08/23/2017 08:07	WG1012508
Trichlorofluoromethane	U		0.000430	0.00563	1	08/23/2017 08:07	WG1012508
1,2,3-Trichloropropane	U		0.000834	0.00281	1	08/23/2017 08:07	WG1012508
1,2,4-Trimethylbenzene	U		0.000238	0.00113	1	08/23/2017 08:07	WG1012508
1,2,3-Trimethylbenzene	U		0.000323	0.00113	1	08/23/2017 08:07	WG1012508
1,3,5-Trimethylbenzene	U		0.000299	0.00113	1	08/23/2017 08:07	WG1012508
Vinyl acetate	U		0.00269	0.0113	1	08/23/2017 08:07	WG1012508
Vinyl chloride	0.000539	J	0.000328	0.00113	1	08/23/2017 08:07	WG1012508
Xylenes, Total	U		0.000786	0.00338	1	08/23/2017 08:07	WG1012508
(S) Toluene-d8	98.5			80.0-120		08/23/2017 08:07	WG1012508
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 08:07	WG1012508
(S) 4-Bromofluorobenzene	98.5			64.0-132		08/23/2017 08:07	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.5		1	08/23/2017 09:43	WG1012652

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	0.0114	J	0.0108	0.0541	1	08/23/2017 08:27	WG1012508
Acrylonitrile	U		0.00194	0.0108	1	08/23/2017 08:27	WG1012508
Benzene	U		0.000292	0.00108	1	08/23/2017 08:27	WG1012508
Bromobenzene	U		0.000307	0.00108	1	08/23/2017 08:27	WG1012508
Bromodichloromethane	U		0.000275	0.00108	1	08/23/2017 08:27	WG1012508
Bromochloromethane	U		0.000422	0.00541	1	08/23/2017 08:27	WG1012508
Bromoform	U		0.000458	0.00108	1	08/23/2017 08:27	WG1012508
Bromomethane	U		0.00145	0.00541	1	08/23/2017 08:27	WG1012508
n-Butylbenzene	U		0.000279	0.00108	1	08/23/2017 08:27	WG1012508
sec-Butylbenzene	U		0.000217	0.00108	1	08/23/2017 08:27	WG1012508
tert-Butylbenzene	U		0.000223	0.00108	1	08/23/2017 08:27	WG1012508
Carbon disulfide	0.000898	J	0.000239	0.00108	1	08/23/2017 08:27	WG1012508
Carbon tetrachloride	U		0.000355	0.00108	1	08/23/2017 08:27	WG1012508
Chlorobenzene	U		0.000229	0.00108	1	08/23/2017 08:27	WG1012508
Chlorodibromomethane	U		0.000403	0.00108	1	08/23/2017 08:27	WG1012508
Chloroethane	U		0.00102	0.00541	1	08/23/2017 08:27	WG1012508
Chloroform	U		0.000248	0.00541	1	08/23/2017 08:27	WG1012508
Chloromethane	U		0.000405	0.00270	1	08/23/2017 08:27	WG1012508
2-Chlorotoluene	U		0.000325	0.00108	1	08/23/2017 08:27	WG1012508
4-Chlorotoluene	U		0.000259	0.00108	1	08/23/2017 08:27	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00541	1	08/23/2017 08:27	WG1012508
1,2-Dibromoethane	U		0.000371	0.00108	1	08/23/2017 08:27	WG1012508
Dibromomethane	U		0.000413	0.00108	1	08/23/2017 08:27	WG1012508
1,2-Dichlorobenzene	U		0.000330	0.00108	1	08/23/2017 08:27	WG1012508
1,3-Dichlorobenzene	U		0.000258	0.00108	1	08/23/2017 08:27	WG1012508
1,4-Dichlorobenzene	U		0.000244	0.00108	1	08/23/2017 08:27	WG1012508
Dichlorodifluoromethane	U		0.000771	0.00541	1	08/23/2017 08:27	WG1012508
1,1-Dichloroethane	U		0.000215	0.00108	1	08/23/2017 08:27	WG1012508
1,2-Dichloroethane	U		0.000287	0.00108	1	08/23/2017 08:27	WG1012508
1,1-Dichloroethene	U		0.000328	0.00108	1	08/23/2017 08:27	WG1012508
cis-1,2-Dichloroethene	0.0189		0.000254	0.00108	1	08/23/2017 08:27	WG1012508
trans-1,2-Dichloroethene	0.000512	J	0.000285	0.00108	1	08/23/2017 08:27	WG1012508
1,2-Dichloropropane	U		0.000387	0.00108	1	08/23/2017 08:27	WG1012508
1,1-Dichloropropene	U		0.000343	0.00108	1	08/23/2017 08:27	WG1012508
1,3-Dichloropropane	U		0.000224	0.00108	1	08/23/2017 08:27	WG1012508
cis-1,3-Dichloropropene	U		0.000283	0.00108	1	08/23/2017 08:27	WG1012508
trans-1,3-Dichloropropene	U		0.000289	0.00108	1	08/23/2017 08:27	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000841	0.00270	1	08/23/2017 08:27	WG1012508
2,2-Dichloropropane	U		0.000302	0.00108	1	08/23/2017 08:27	WG1012508
Di-isopropyl ether	U		0.000268	0.00108	1	08/23/2017 08:27	WG1012508
Ethylbenzene	U		0.000321	0.00108	1	08/23/2017 08:27	WG1012508
Hexachloro-1,3-butadiene	U		0.000370	0.00108	1	08/23/2017 08:27	WG1012508
2-Hexanone	U		0.00148	0.0108	1	08/23/2017 08:27	WG1012508
n-Hexane	U		0.000314	0.0108	1	08/23/2017 08:27	WG1012508
Iodomethane	U		0.00274	0.0108	1	08/23/2017 08:27	WG1012508
Isopropylbenzene	U		0.000263	0.00108	1	08/23/2017 08:27	WG1012508
p-Isopropyltoluene	U		0.000221	0.00108	1	08/23/2017 08:27	WG1012508
2-Butanone (MEK)	U		0.00506	0.0108	1	08/23/2017 08:27	WG1012508
Methylene Chloride	U		0.00108	0.00541	1	08/23/2017 08:27	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00203	0.0108	1	08/23/2017 08:27	WG1012508

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000229	0.00108	1	08/23/2017 08:27	WG1012508
Naphthalene	U		0.00108	0.00541	1	08/23/2017 08:27	WG1012508
n-Propylbenzene	U		0.000223	0.00108	1	08/23/2017 08:27	WG1012508
Styrene	U		0.000253	0.00108	1	08/23/2017 08:27	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000285	0.00108	1	08/23/2017 08:27	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000395	0.00108	1	08/23/2017 08:27	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000395	0.00108	1	08/23/2017 08:27	WG1012508
Tetrachloroethene	0.0235		0.000298	0.00108	1	08/23/2017 08:27	WG1012508
Toluene	U		0.000469	0.00541	1	08/23/2017 08:27	WG1012508
1,2,3-Trichlorobenzene	U		0.000331	0.00108	1	08/23/2017 08:27	WG1012508
1,2,4-Trichlorobenzene	U		0.000420	0.00108	1	08/23/2017 08:27	WG1012508
1,1,1-Trichloroethane	U		0.000309	0.00108	1	08/23/2017 08:27	WG1012508
1,1,2-Trichloroethane	U		0.000300	0.00108	1	08/23/2017 08:27	WG1012508
Trichloroethene	U		0.000302	0.00108	1	08/23/2017 08:27	WG1012508
Trichlorofluoromethane	U		0.000413	0.00541	1	08/23/2017 08:27	WG1012508
1,2,3-Trichloropropane	U		0.000801	0.00270	1	08/23/2017 08:27	WG1012508
1,2,4-Trimethylbenzene	U		0.000228	0.00108	1	08/23/2017 08:27	WG1012508
1,2,3-Trimethylbenzene	U		0.000310	0.00108	1	08/23/2017 08:27	WG1012508
1,3,5-Trimethylbenzene	U		0.000288	0.00108	1	08/23/2017 08:27	WG1012508
Vinyl acetate	U		0.00258	0.0108	1	08/23/2017 08:27	WG1012508
Vinyl chloride	0.00127		0.000315	0.00108	1	08/23/2017 08:27	WG1012508
Xylenes, Total	U		0.000755	0.00324	1	08/23/2017 08:27	WG1012508
(S) Toluene-d8	98.0			80.0-120		08/23/2017 08:27	WG1012508
(S) Dibromofluoromethane	105			74.0-131		08/23/2017 08:27	WG1012508
(S) 4-Bromofluorobenzene	97.9			64.0-132		08/23/2017 08:27	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3243512-1 08/22/17 08:23

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000800			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L930562-09 Original Sample (OS) • Duplicate (DUP)

(OS) L930562-09 08/22/17 08:23 • (DUP) R3243512-3 08/22/17 08:23

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	97.2	97.7	1	0.525		5

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3243512-2 08/22/17 08:23

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3243971-1 08/23/17 10:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000300			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L930664-04 Original Sample (OS) • Duplicate (DUP)

(OS) L930664-04 08/23/17 10:38 • (DUP) R3243971-3 08/23/17 10:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	80.9	81.5	1	0.790		5

⁷ Gl

⁸ Al

Laboratory Control Sample (LCS)

(LCS) R3243971-2 08/23/17 10:38

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

⁹ Sc



Method Blank (MB)

(MB) R3243964-1 08/23/17 09:43

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.000300			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L930701-03 Original Sample (OS) • Duplicate (DUP)

(OS) L930701-03 08/23/17 09:43 • (DUP) R3243964-3 08/23/17 09:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	81.4	81.5	1	0.119		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3243964-2 08/23/17 09:43

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3244465-3 08/24/17 12:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.5			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3244465-1 08/24/17 11:19 • (LCSD) R3244465-2 08/24/17 11:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.05	5.10	91.8	92.7	70.0-133			0.950	20
(S) a,a,a-Trifluorotoluene(FID)				104	104	77.0-120				

L930631-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L930631-03 08/24/17 16:03 • (MS) R3244465-4 08/24/17 21:12 • (MSD) R3244465-5 08/24/17 21:36

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	6.30	U	218	217	88.1	87.8	39.25	10.0-146			0.290	30
(S) a,a,a-Trifluorotoluene(FID)					103	103		77.0-120				

Sample Narrative:

OS: No stir bars remain for analysis.



Method Blank (MB)

(MB) R3243686-4 08/23/17 01:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3243686-4 08/23/17 01:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	0.00316	U	0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	97.2			74.0-131
(S) 4-Bromofluorobenzene	95.5			64.0-132

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243686-1 08/22/17 22:27 • (LCSD) R3243686-2 08/23/17 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	0.103	0.113	82.6	90.0	11.0-160			8.64	23
Acrylonitrile	0.125	0.122	0.114	97.2	91.4	61.0-143			6.22	20
Benzene	0.0250	0.0243	0.0236	97.2	94.4	71.0-124			2.88	20
Bromobenzene	0.0250	0.0234	0.0230	93.7	91.8	78.0-120			1.99	20
Bromodichloromethane	0.0250	0.0236	0.0230	94.5	92.0	75.0-120			2.72	20
Bromochloromethane	0.0250	0.0250	0.0236	99.9	94.4	80.0-121			5.59	20
Bromoform	0.0250	0.0234	0.0224	93.6	89.4	65.0-133			4.56	20
Bromomethane	0.0250	0.0267	0.0269	107	108	26.0-160			0.990	20
n-Butylbenzene	0.0250	0.0219	0.0247	87.7	98.9	73.0-126			12.0	20
sec-Butylbenzene	0.0250	0.0230	0.0233	91.9	93.3	75.0-121			1.43	20
tert-Butylbenzene	0.0250	0.0234	0.0231	93.7	92.3	74.0-122			1.48	20
Carbon disulfide	0.0250	0.0242	0.0242	96.9	96.8	53.0-130			0.0500	20
Carbon tetrachloride	0.0250	0.0226	0.0231	90.5	92.3	66.0-123			1.99	20
Chlorobenzene	0.0250	0.0245	0.0239	98.2	95.7	79.0-121			2.56	20
Chlorodibromomethane	0.0250	0.0235	0.0230	93.8	92.0	74.0-128			2.00	20
Chloroethane	0.0250	0.0267	0.0268	107	107	51.0-147			0.280	20
Chloroform	0.0250	0.0241	0.0236	96.6	94.3	73.0-123			2.39	20
Chloromethane	0.0250	0.0238	0.0236	95.2	94.4	51.0-138			0.810	20
2-Chlorotoluene	0.0250	0.0234	0.0235	93.6	94.0	72.0-124			0.470	20
4-Chlorotoluene	0.0250	0.0222	0.0230	88.7	91.8	78.0-120			3.50	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0250	0.0250	100	100	65.0-126			0.0600	20
1,2-Dibromoethane	0.0250	0.0256	0.0233	102	93.2	78.0-122			9.27	20
Dibromomethane	0.0250	0.0251	0.0232	100	92.9	79.0-120			7.80	20
1,2-Dichlorobenzene	0.0250	0.0243	0.0243	97.2	97.3	80.0-120			0.120	20
1,3-Dichlorobenzene	0.0250	0.0235	0.0250	94.0	100	72.0-123			6.22	20
1,4-Dichlorobenzene	0.0250	0.0226	0.0237	90.4	94.8	77.0-120			4.68	20
trans-1,4-Dichloro-2-butene	0.0250	0.0250	0.0264	100	106	68.0-126			5.31	20
Dichlorodifluoromethane	0.0250	0.0233	0.0229	93.0	91.7	49.0-155			1.47	20
1,1-Dichloroethane	0.0250	0.0248	0.0243	99.1	97.2	70.0-128			1.95	20
1,2-Dichloroethane	0.0250	0.0259	0.0244	103	97.6	69.0-128			5.88	20
1,1-Dichloroethene	0.0250	0.0234	0.0237	93.8	94.6	63.0-131			0.950	20
cis-1,2-Dichloroethene	0.0250	0.0230	0.0218	92.2	87.1	74.0-123			5.64	20
trans-1,2-Dichloroethene	0.0250	0.0222	0.0224	88.8	89.6	72.0-122			0.830	20
1,2-Dichloropropane	0.0250	0.0255	0.0245	102	98.2	75.0-126			3.75	20
1,1-Dichloropropene	0.0250	0.0233	0.0239	93.4	95.7	72.0-130			2.40	20
1,3-Dichloropropane	0.0250	0.0265	0.0251	106	100	80.0-121			5.35	20
cis-1,3-Dichloropropene	0.0250	0.0244	0.0238	97.6	95.2	80.0-125			2.42	20
trans-1,3-Dichloropropene	0.0250	0.0265	0.0257	106	103	75.0-129			3.28	20
2,2-Dichloropropane	0.0250	0.0227	0.0237	90.8	94.9	60.0-129			4.43	20
Di-isopropyl ether	0.0250	0.0243	0.0233	97.1	93.4	62.0-133			3.93	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3243686-1 08/22/17 22:27 • (LCSD) R3243686-2 08/23/17 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0234	0.0233	93.5	93.2	77.0-120			0.220	20
Hexachloro-1,3-butadiene	0.0250	0.0225	0.0245	90.2	98.2	68.0-128			8.53	20
2-Hexanone	0.125	0.128	0.130	103	104	61.0-143			1.71	20
n-Hexane	0.0250	0.0217	0.0213	86.9	85.2	57.0-125			1.99	20
Iodomethane	0.125	0.129	0.131	103	105	67.0-132			1.93	20
Isopropylbenzene	0.0250	0.0227	0.0227	90.8	90.7	75.0-120			0.160	20
p-Isopropyltoluene	0.0250	0.0224	0.0236	89.5	94.3	74.0-125			5.16	20
2-Butanone (MEK)	0.125	0.127	0.129	102	103	37.0-159			1.27	20
Methylene Chloride	0.0250	0.0230	0.0222	91.9	89.0	67.0-123			3.27	20
4-Methyl-2-pentanone (MIBK)	0.125	0.131	0.124	105	98.9	60.0-144			5.92	20
Methyl tert-butyl ether	0.0250	0.0246	0.0233	98.5	93.1	66.0-125			5.67	20
Naphthalene	0.0250	0.0237	0.0224	94.9	89.6	64.0-125			5.79	20
n-Propylbenzene	0.0250	0.0224	0.0233	89.6	93.4	78.0-120			4.09	20
Styrene	0.0250	0.0227	0.0220	90.8	87.9	78.0-124			3.25	20
1,1,1,2-Tetrachloroethane	0.0250	0.0233	0.0230	93.0	92.2	74.0-124			0.910	20
1,1,2,2-Tetrachloroethane	0.0250	0.0239	0.0230	95.6	91.9	73.0-120			4.01	20
Tetrachloroethene	0.0250	0.0243	0.0241	97.3	96.2	70.0-127			1.09	20
Toluene	0.0250	0.0231	0.0224	92.2	89.6	77.0-120			2.85	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0249	0.0254	99.4	101	64.0-135			2.03	20
1,2,3-Trichlorobenzene	0.0250	0.0246	0.0253	98.4	101	68.0-126			2.82	20
1,2,4-Trichlorobenzene	0.0250	0.0234	0.0261	93.6	105	70.0-127			11.1	20
1,1,1-Trichloroethane	0.0250	0.0222	0.0224	89.0	89.7	69.0-125			0.850	20
1,1,2-Trichloroethane	0.0250	0.0243	0.0230	97.0	92.0	78.0-120			5.32	20
Trichloroethene	0.0250	0.0240	0.0238	95.9	95.1	79.0-120			0.900	20
Trichlorofluoromethane	0.0250	0.0286	0.0299	114	120	59.0-136			4.56	20
1,2,3-Trichloropropane	0.0250	0.0243	0.0218	97.1	87.2	73.0-124			10.8	20
1,2,3-Trimethylbenzene	0.0250	0.0229	0.0228	91.7	91.1	76.0-120			0.660	20
1,2,4-Trimethylbenzene	0.0250	0.0210	0.0216	84.2	86.3	75.0-120			2.54	20
1,3,5-Trimethylbenzene	0.0250	0.0222	0.0227	88.8	90.7	75.0-120			2.14	20
Vinyl acetate	0.125	0.131	0.135	105	108	58.0-156			3.01	20
Vinyl chloride	0.0250	0.0278	0.0284	111	114	63.0-134			2.11	20
Xylenes, Total	0.0750	0.0675	0.0678	90.0	90.4	77.0-120			0.440	20
(S) Toluene-d8				102	101	80.0-120				
(S) Dibromofluoromethane				97.7	97.7	74.0-131				
(S) 4-Bromofluorobenzene				93.0	91.6	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL (dry)	Reported Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	---



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

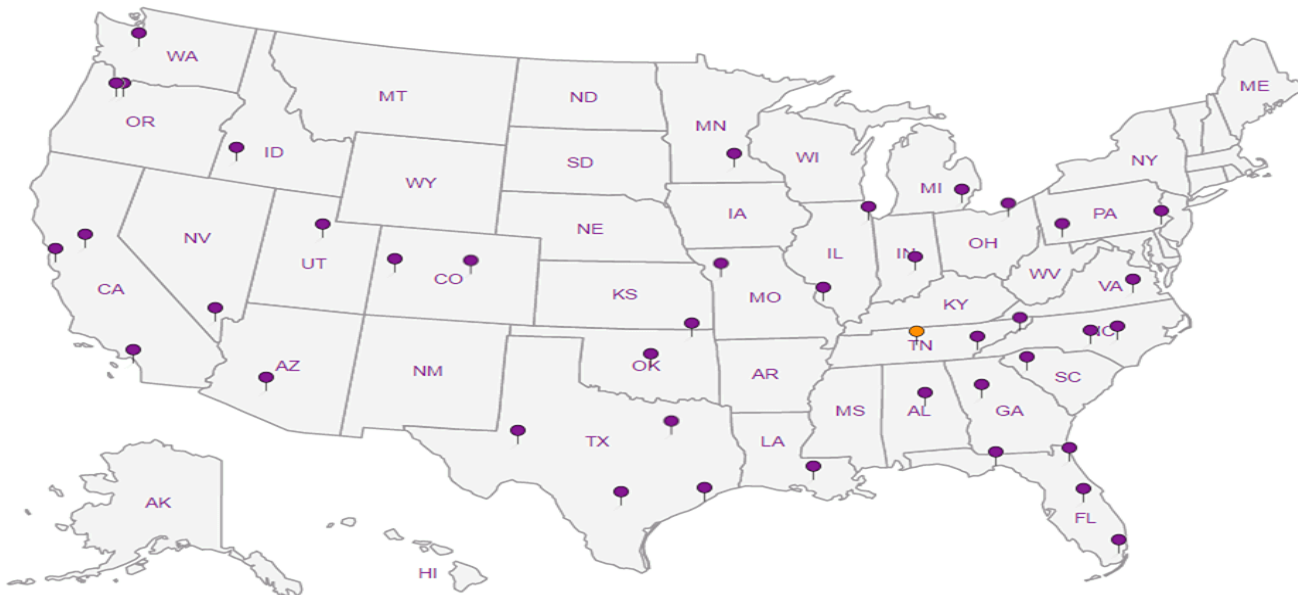
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

PES Environmental, Inc.- WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
 1215 Fourth Ave., Ste. 1350
 Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project Description: **American Linen Project**

City/State Collected: **SEATTLE, WA**

Phone: **206-529-3980**
 Fax: **206-529-3985**


Client Project #
1413.001.02.602

Lab Project #
PESENVSWA-ALP

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
1413.001.02.602

P.O. #

Collected by (signature):

 Immediately Packed on Ice N Y X

Rush? (Lab MUST Be Notified)
 ___ Same Day ___ Five Day
 ___ Next Day ___ 5 Day (Rad Only)
 ___ Two Day ___ 10 Day (Rad Only)
 ___ Three Day

Quote #
 Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 2ozCir-NoPres	NWTPHGX 40mlAmb HCl	TS 4ozCir-NoPres	V8260C 40ml/NaHSO4/Syr/MeOH	V8260C 40mlAmb-HCl
MW-133-141	GRAB	SS	141	8/16/17	1710	5	X		X	X	
MW-B-211-20	↓	SS	20	8/17/17	1155	4	X		X	X	
MW-B-211-35	↓	SS	35	↓	1310	4	X		X	X	
MW-B-211-50	↓	SS	50	↓	1535	4	X		X	X	
MW-		SS				5	X		X	X	
MW-		SS				5	X		X	X	
MW-		SS				5	X		X	X	
MW-		GW				6		X			X
MW-		GW				6		X			X
MW-		GW				6		X			X

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other


Remarks:

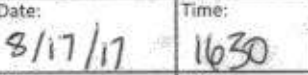
Samples returned via:
 ___ UPS ___ FedEx ___ Courier

Tracking # **72 7474 0921 0675**

pH ___ Temp ___
 Flow ___ Other ___

Sample Receipt Checklist	
COC Seal Present/Intact: NP	<u> </u> Y <u> </u> N
COC Signed/Accurate:	<u> </u> Y <u> </u> N
Bottles arrive intact:	<u> </u> Y <u> </u> N
Correct bottles used:	<u> </u> Y <u> </u> N
Sufficient volume sent:	<u> </u> Y <u> </u> N
If Applicable	
VQA Zero Headspace:	<u> </u> Y <u> </u> N
Preservation Correct/Checked:	<u> </u> Y <u> </u> N


Relinquished by: (Signature)

 Date: **8/17/17**
 Time: **1630**

Received by: (Signature)

 Date: **8/18/17**
 Time: **0845**

Trip Blank Received: Yes (No) HCL/MeOH TBR
 Temp: **1.5** °C
 Bottles Received: **17**

If preservation required by Login: Date/Time
 Hold:
 Condition: **NCF / 06**

Chain of Custody Page ___ of ___



12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **930670**
D221

Acctnum: **PESENVSWA**
 Template: **T126586**
 Prelogin: **P613274**
 TSR: **110 - Brian Ford**
 PB: **8/10/17 MB**

Shipped Via: **FedEx Ground**

MEMORANDUM

TO: Project File **DATE:** September 18, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.604
TASK: August 16-17, 2017 – Soil Samples
LAB: ESC Lab ID L930670

Four (4) soil samples were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington, on August 16-17, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- Total Solids by Standard Methods 2540 G-2011.

The results are reported in ESC Sample Delivery Group (SDG) L930670. The quarterly monitoring round occurred between August and September of 2017. Associated sample data are reported in X# ESC SDGs (SDGs L929881, L929901, L930317, L930670, L930884, L931390, L931655, L932059, L932260, L932611, L932876, L933267, L933455, L934130, L934673, L934916, and). The quality assurance review of the sample data associated with SDG L930670 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected on August 16-17, 2017 in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 1.5 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for soils from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

All samples were analyzed within the WA State recommended holding time of fourteen days for soils from the date of sample collection. All holding time criteria were met.

General Chemistry (Total Solids):

Samples were analyzed within the USEPA recommended holding time of 7 days for total solids. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable and ESC notes do not indicate there were any calibration issues.

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs) with the following exception:

- Analytical batch WG1012508 (soils): A low level of iodomethane was detected between the MDL and the RDL in the method blank analyzed on August 23, 2017. No action was taken since iodomethane was not detected in the associated samples.

NWTPH-Gx Method:

A laboratory method blank was included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blank at or above the RDL.

Total Solids by SM 2540 G 2011:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (% solids) were not detected at significant levels in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

Total Solids by SM 2540 G 2011:

Laboratory duplicate sample analyses were performed on non-client samples within the analytical batches. The primary/duplicate RPDs for total solids analyses are within the laboratory control limit of 5%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSDs, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, LCS/LCSDs, matrix spike/matrix spike duplicates (MS/MSDs), and the method blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils.

NWTPH-Gx Method:

LCS/LCSD was analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for soils.

Total Solids by SM 2540 G 2011:

The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Refer to LCS/LCSD results for accuracy and precision data.

NWTPH-Gx Method:

MS/MSD analyses were performed on a non-client sample within the analytical batch. MS/MSD % Rs and RPD for gasoline were within the laboratory control criteria for soils.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Compound Identification and Quantitation Limits

The RDLs used for this sample group were acceptable for the project.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Collected date/time: 08/16/17 17:10

L930670

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.8		1	08/22/2017 08:23	WG1012135

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.955	2.82	25	08/24/2017 18:49	WG1012852
(S) a,a,a-Trifluorotoluene(FID)	99.8			77.0-120		08/24/2017 18:49	WG1012852

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0563	1	08/23/2017 19:09	WG1012508
Acrylonitrile	U		0.00202	0.0113	1	08/23/2017 19:09	WG1012508
Benzene	0.000766 J J		0.000304	0.00113	1	08/23/2017 19:09	WG1012508
Bromobenzene	U		0.000320	0.00113	1	08/23/2017 19:09	WG1012508
Bromodichloromethane	U		0.000286	0.00113	1	08/23/2017 19:09	WG1012508
Bromochloromethane	U		0.000439	0.00563	1	08/23/2017 19:09	WG1012508
Bromoform	U		0.000478	0.00113	1	08/23/2017 19:09	WG1012508
Bromomethane	U		0.00151	0.00563	1	08/23/2017 19:09	WG1012508
n-Butylbenzene	U		0.000291	0.00113	1	08/23/2017 19:09	WG1012508
sec-Butylbenzene	U		0.000226	0.00113	1	08/23/2017 19:09	WG1012508
tert-Butylbenzene	U		0.000232	0.00113	1	08/23/2017 19:09	WG1012508
Carbon disulfide	0.00232		0.000249	0.00113	1	08/23/2017 19:09	WG1012508
Carbon tetrachloride	U		0.000369	0.00113	1	08/23/2017 19:09	WG1012508
Chlorobenzene	U		0.000239	0.00113	1	08/23/2017 19:09	WG1012508
Chlorodibromomethane	U		0.000420	0.00113	1	08/23/2017 19:09	WG1012508
Chloroethane	U		0.00107	0.00563	1	08/23/2017 19:09	WG1012508
Chloroform	U		0.000258	0.00563	1	08/23/2017 19:09	WG1012508
Chloromethane	U		0.000422	0.00282	1	08/23/2017 19:09	WG1012508
2-Chlorotoluene	U		0.000339	0.00113	1	08/23/2017 19:09	WG1012508
4-Chlorotoluene	U		0.000270	0.00113	1	08/23/2017 19:09	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00118	0.00563	1	08/23/2017 19:09	WG1012508
1,2-Dibromoethane	U		0.000386	0.00113	1	08/23/2017 19:09	WG1012508
Dibromomethane	U		0.000430	0.00113	1	08/23/2017 19:09	WG1012508
1,2-Dichlorobenzene	U		0.000343	0.00113	1	08/23/2017 19:09	WG1012508
1,3-Dichlorobenzene	U		0.000269	0.00113	1	08/23/2017 19:09	WG1012508
1,4-Dichlorobenzene	U		0.000255	0.00113	1	08/23/2017 19:09	WG1012508
Dichlorodifluoromethane	U		0.000803	0.00563	1	08/23/2017 19:09	WG1012508
1,1-Dichloroethane	U		0.000224	0.00113	1	08/23/2017 19:09	WG1012508
1,2-Dichloroethane	U		0.000298	0.00113	1	08/23/2017 19:09	WG1012508
1,1-Dichloroethene	U		0.000341	0.00113	1	08/23/2017 19:09	WG1012508
cis-1,2-Dichloroethene	U		0.000265	0.00113	1	08/23/2017 19:09	WG1012508
trans-1,2-Dichloroethene	U		0.000297	0.00113	1	08/23/2017 19:09	WG1012508
1,2-Dichloropropane	U		0.000403	0.00113	1	08/23/2017 19:09	WG1012508
1,1-Dichloropropene	U		0.000357	0.00113	1	08/23/2017 19:09	WG1012508
1,3-Dichloropropane	U		0.000233	0.00113	1	08/23/2017 19:09	WG1012508
cis-1,3-Dichloropropene	U		0.000295	0.00113	1	08/23/2017 19:09	WG1012508
trans-1,3-Dichloropropene	U		0.000301	0.00113	1	08/23/2017 19:09	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000876	0.00282	1	08/23/2017 19:09	WG1012508
2,2-Dichloropropane	U		0.000314	0.00113	1	08/23/2017 19:09	WG1012508
Di-isopropyl ether	U		0.000279	0.00113	1	08/23/2017 19:09	WG1012508
Ethylbenzene	U		0.000334	0.00113	1	08/23/2017 19:09	WG1012508
Hexachloro-1,3-butadiene	U		0.000385	0.00113	1	08/23/2017 19:09	WG1012508
2-Hexanone	U		0.00154	0.0113	1	08/23/2017 19:09	WG1012508
n-Hexane	0.0113		0.000327	0.0113	1	08/23/2017 19:09	WG1012508

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00285	0.0113	1	08/23/2017 19:09	WG1012508
Isopropylbenzene	U		0.000274	0.00113	1	08/23/2017 19:09	WG1012508
p-Isopropyltoluene	U		0.000230	0.00113	1	08/23/2017 19:09	WG1012508
2-Butanone (MEK)	U		0.00527	0.0113	1	08/23/2017 19:09	WG1012508
Methylene Chloride	U		0.00113	0.00563	1	08/23/2017 19:09	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00212	0.0113	1	08/23/2017 19:09	WG1012508
Methyl tert-butyl ether	U		0.000239	0.00113	1	08/23/2017 19:09	WG1012508
Naphthalene	U		0.00113	0.00563	1	08/23/2017 19:09	WG1012508
n-Propylbenzene	U		0.000232	0.00113	1	08/23/2017 19:09	WG1012508
Styrene	U		0.000264	0.00113	1	08/23/2017 19:09	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000297	0.00113	1	08/23/2017 19:09	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000411	0.00113	1	08/23/2017 19:09	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000411	0.00113	1	08/23/2017 19:09	WG1012508
Tetrachloroethene	U		0.000311	0.00113	1	08/23/2017 19:09	WG1012508
Toluene	U		0.000489	0.00563	1	08/23/2017 19:09	WG1012508
1,2,3-Trichlorobenzene	U		0.000345	0.00113	1	08/23/2017 19:09	WG1012508
1,2,4-Trichlorobenzene	U		0.000437	0.00113	1	08/23/2017 19:09	WG1012508
1,1,1-Trichloroethane	U		0.000322	0.00113	1	08/23/2017 19:09	WG1012508
1,1,2-Trichloroethane	U		0.000312	0.00113	1	08/23/2017 19:09	WG1012508
Trichloroethene	U		0.000314	0.00113	1	08/23/2017 19:09	WG1012508
Trichlorofluoromethane	U		0.000430	0.00563	1	08/23/2017 19:09	WG1012508
1,2,3-Trichloropropane	U		0.000835	0.00282	1	08/23/2017 19:09	WG1012508
1,2,4-Trimethylbenzene	U		0.000238	0.00113	1	08/23/2017 19:09	WG1012508
1,2,3-Trimethylbenzene	U		0.000323	0.00113	1	08/23/2017 19:09	WG1012508
1,3,5-Trimethylbenzene	U		0.000300	0.00113	1	08/23/2017 19:09	WG1012508
Vinyl acetate	U		0.00269	0.0113	1	08/23/2017 19:09	WG1012508
Vinyl chloride	U		0.000328	0.00113	1	08/23/2017 19:09	WG1012508
Xylenes, Total	U		0.000786	0.00338	1	08/23/2017 19:09	WG1012508
(S) Toluene-d8	97.9			80.0-120		08/23/2017 19:09	WG1012508
(S) Dibromofluoromethane	106			74.0-131		08/23/2017 19:09	WG1012508
(S) 4-Bromofluorobenzene	96.7			64.0-132		08/23/2017 19:09	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.6		1	08/23/2017 10:38	WG1012647

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0112	0.0558	1	08/23/2017 07:46	WG1012508
Acrylonitrile	U		0.00200	0.0112	1	08/23/2017 07:46	WG1012508
Benzene	U		0.000301	0.00112	1	08/23/2017 07:46	WG1012508
Bromobenzene	U		0.000317	0.00112	1	08/23/2017 07:46	WG1012508
Bromodichloromethane	U		0.000284	0.00112	1	08/23/2017 07:46	WG1012508
Bromochloromethane	U		0.000435	0.00558	1	08/23/2017 07:46	WG1012508
Bromoform	U		0.000473	0.00112	1	08/23/2017 07:46	WG1012508
Bromomethane	U		0.00150	0.00558	1	08/23/2017 07:46	WG1012508
n-Butylbenzene	U		0.000288	0.00112	1	08/23/2017 07:46	WG1012508
sec-Butylbenzene	U		0.000224	0.00112	1	08/23/2017 07:46	WG1012508
tert-Butylbenzene	U		0.000230	0.00112	1	08/23/2017 07:46	WG1012508
Carbon disulfide	U		0.000247	0.00112	1	08/23/2017 07:46	WG1012508
Carbon tetrachloride	U		0.000366	0.00112	1	08/23/2017 07:46	WG1012508
Chlorobenzene	U		0.000237	0.00112	1	08/23/2017 07:46	WG1012508
Chlorodibromomethane	U		0.000416	0.00112	1	08/23/2017 07:46	WG1012508
Chloroethane	U		0.00106	0.00558	1	08/23/2017 07:46	WG1012508
Chloroform	U		0.000256	0.00558	1	08/23/2017 07:46	WG1012508
Chloromethane	U		0.000419	0.00279	1	08/23/2017 07:46	WG1012508
2-Chlorotoluene	U		0.000336	0.00112	1	08/23/2017 07:46	WG1012508
4-Chlorotoluene	U		0.000268	0.00112	1	08/23/2017 07:46	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00558	1	08/23/2017 07:46	WG1012508
1,2-Dibromoethane	U		0.000383	0.00112	1	08/23/2017 07:46	WG1012508
Dibromomethane	U		0.000427	0.00112	1	08/23/2017 07:46	WG1012508
1,2-Dichlorobenzene	U		0.000341	0.00112	1	08/23/2017 07:46	WG1012508
1,3-Dichlorobenzene	U		0.000267	0.00112	1	08/23/2017 07:46	WG1012508
1,4-Dichlorobenzene	U		0.000252	0.00112	1	08/23/2017 07:46	WG1012508
Dichlorodifluoromethane	U		0.000796	0.00558	1	08/23/2017 07:46	WG1012508
1,1-Dichloroethane	U		0.000222	0.00112	1	08/23/2017 07:46	WG1012508
1,2-Dichloroethane	U		0.000296	0.00112	1	08/23/2017 07:46	WG1012508
1,1-Dichloroethene	0.000862 J	J	0.000338	0.00112	1	08/23/2017 07:46	WG1012508
cis-1,2-Dichloroethene	0.0282		0.000262	0.00112	1	08/23/2017 07:46	WG1012508
trans-1,2-Dichloroethene	0.00109 J	J	0.000295	0.00112	1	08/23/2017 07:46	WG1012508
1,2-Dichloropropane	U		0.000400	0.00112	1	08/23/2017 07:46	WG1012508
1,1-Dichloropropene	U		0.000354	0.00112	1	08/23/2017 07:46	WG1012508
1,3-Dichloropropane	U		0.000231	0.00112	1	08/23/2017 07:46	WG1012508
cis-1,3-Dichloropropene	U		0.000293	0.00112	1	08/23/2017 07:46	WG1012508
trans-1,3-Dichloropropene	U		0.000298	0.00112	1	08/23/2017 07:46	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000869	0.00279	1	08/23/2017 07:46	WG1012508
2,2-Dichloropropane	U		0.000312	0.00112	1	08/23/2017 07:46	WG1012508
Di-isopropyl ether	U		0.000277	0.00112	1	08/23/2017 07:46	WG1012508
Ethylbenzene	U		0.000332	0.00112	1	08/23/2017 07:46	WG1012508
Hexachloro-1,3-butadiene	U		0.000382	0.00112	1	08/23/2017 07:46	WG1012508
2-Hexanone	U		0.00153	0.0112	1	08/23/2017 07:46	WG1012508
n-Hexane	U		0.000324	0.0112	1	08/23/2017 07:46	WG1012508
Iodomethane	U		0.00282	0.0112	1	08/23/2017 07:46	WG1012508
Isopropylbenzene	U		0.000271	0.00112	1	08/23/2017 07:46	WG1012508
p-Isopropyltoluene	U		0.000228	0.00112	1	08/23/2017 07:46	WG1012508
2-Butanone (MEK)	U		0.00523	0.0112	1	08/23/2017 07:46	WG1012508
Methylene Chloride	U		0.00112	0.00558	1	08/23/2017 07:46	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00210	0.0112	1	08/23/2017 07:46	WG1012508

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000237	0.00112	1	08/23/2017 07:46	WG1012508
Naphthalene	U		0.00112	0.00558	1	08/23/2017 07:46	WG1012508
n-Propylbenzene	U		0.000230	0.00112	1	08/23/2017 07:46	WG1012508
Styrene	U		0.000261	0.00112	1	08/23/2017 07:46	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000295	0.00112	1	08/23/2017 07:46	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000408	0.00112	1	08/23/2017 07:46	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000408	0.00112	1	08/23/2017 07:46	WG1012508
Tetrachloroethene	0.0153		0.000308	0.00112	1	08/23/2017 07:46	WG1012508
Toluene	U		0.000485	0.00558	1	08/23/2017 07:46	WG1012508
1,2,3-Trichlorobenzene	U		0.000342	0.00112	1	08/23/2017 07:46	WG1012508
1,2,4-Trichlorobenzene	U		0.000433	0.00112	1	08/23/2017 07:46	WG1012508
1,1,1-Trichloroethane	U		0.000319	0.00112	1	08/23/2017 07:46	WG1012508
1,1,2-Trichloroethane	U		0.000309	0.00112	1	08/23/2017 07:46	WG1012508
Trichloroethene	0.0202		0.000312	0.00112	1	08/23/2017 07:46	WG1012508
Trichlorofluoromethane	U		0.000427	0.00558	1	08/23/2017 07:46	WG1012508
1,2,3-Trichloropropane	U		0.000827	0.00279	1	08/23/2017 07:46	WG1012508
1,2,4-Trimethylbenzene	U		0.000236	0.00112	1	08/23/2017 07:46	WG1012508
1,2,3-Trimethylbenzene	U		0.000320	0.00112	1	08/23/2017 07:46	WG1012508
1,3,5-Trimethylbenzene	U		0.000297	0.00112	1	08/23/2017 07:46	WG1012508
Vinyl acetate	U		0.00267	0.0112	1	08/23/2017 07:46	WG1012508
Vinyl chloride	0.000723 J	J	0.000325	0.00112	1	08/23/2017 07:46	WG1012508
Xylenes, Total	U		0.000779	0.00335	1	08/23/2017 07:46	WG1012508
(S) Toluene-d8	98.0			80.0-120		08/23/2017 07:46	WG1012508
(S) Dibromofluoromethane	103			74.0-131		08/23/2017 07:46	WG1012508
(S) 4-Bromofluorobenzene	96.0			64.0-132		08/23/2017 07:46	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 08/17/17 13:10

L930670

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.8		1	08/23/2017 10:38	WG1012647

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0563	1	08/23/2017 08:07	WG1012508
Acrylonitrile	U		0.00201	0.0113	1	08/23/2017 08:07	WG1012508
Benzene	U		0.000304	0.00113	1	08/23/2017 08:07	WG1012508
Bromobenzene	U		0.000320	0.00113	1	08/23/2017 08:07	WG1012508
Bromodichloromethane	U		0.000286	0.00113	1	08/23/2017 08:07	WG1012508
Bromochloromethane	U		0.000439	0.00563	1	08/23/2017 08:07	WG1012508
Bromoform	U		0.000477	0.00113	1	08/23/2017 08:07	WG1012508
Bromomethane	U		0.00151	0.00563	1	08/23/2017 08:07	WG1012508
n-Butylbenzene	U		0.000290	0.00113	1	08/23/2017 08:07	WG1012508
sec-Butylbenzene	U		0.000226	0.00113	1	08/23/2017 08:07	WG1012508
tert-Butylbenzene	U		0.000232	0.00113	1	08/23/2017 08:07	WG1012508
Carbon disulfide	0.000481 J	J	0.000249	0.00113	1	08/23/2017 08:07	WG1012508
Carbon tetrachloride	U		0.000369	0.00113	1	08/23/2017 08:07	WG1012508
Chlorobenzene	U		0.000239	0.00113	1	08/23/2017 08:07	WG1012508
Chlorodibromomethane	U		0.000420	0.00113	1	08/23/2017 08:07	WG1012508
Chloroethane	U		0.00106	0.00563	1	08/23/2017 08:07	WG1012508
Chloroform	U		0.000258	0.00563	1	08/23/2017 08:07	WG1012508
Chloromethane	U		0.000422	0.00281	1	08/23/2017 08:07	WG1012508
2-Chlorotoluene	U		0.000339	0.00113	1	08/23/2017 08:07	WG1012508
4-Chlorotoluene	U		0.000270	0.00113	1	08/23/2017 08:07	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00118	0.00563	1	08/23/2017 08:07	WG1012508
1,2-Dibromoethane	U		0.000386	0.00113	1	08/23/2017 08:07	WG1012508
Dibromomethane	U		0.000430	0.00113	1	08/23/2017 08:07	WG1012508
1,2-Dichlorobenzene	U		0.000343	0.00113	1	08/23/2017 08:07	WG1012508
1,3-Dichlorobenzene	U		0.000269	0.00113	1	08/23/2017 08:07	WG1012508
1,4-Dichlorobenzene	U		0.000254	0.00113	1	08/23/2017 08:07	WG1012508
Dichlorodifluoromethane	U		0.000803	0.00563	1	08/23/2017 08:07	WG1012508
1,1-Dichloroethane	U		0.000224	0.00113	1	08/23/2017 08:07	WG1012508
1,2-Dichloroethane	U		0.000298	0.00113	1	08/23/2017 08:07	WG1012508
1,1-Dichloroethene	U		0.000341	0.00113	1	08/23/2017 08:07	WG1012508
cis-1,2-Dichloroethene	0.00104 J	J	0.000265	0.00113	1	08/23/2017 08:07	WG1012508
trans-1,2-Dichloroethene	U		0.000297	0.00113	1	08/23/2017 08:07	WG1012508
1,2-Dichloropropane	U		0.000403	0.00113	1	08/23/2017 08:07	WG1012508
1,1-Dichloropropene	U		0.000357	0.00113	1	08/23/2017 08:07	WG1012508
1,3-Dichloropropane	U		0.000233	0.00113	1	08/23/2017 08:07	WG1012508
cis-1,3-Dichloropropene	U		0.000295	0.00113	1	08/23/2017 08:07	WG1012508
trans-1,3-Dichloropropene	U		0.000301	0.00113	1	08/23/2017 08:07	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000876	0.00281	1	08/23/2017 08:07	WG1012508
2,2-Dichloropropane	U		0.000314	0.00113	1	08/23/2017 08:07	WG1012508
Di-isopropyl ether	U		0.000279	0.00113	1	08/23/2017 08:07	WG1012508
Ethylbenzene	U		0.000334	0.00113	1	08/23/2017 08:07	WG1012508
Hexachloro-1,3-butadiene	U		0.000385	0.00113	1	08/23/2017 08:07	WG1012508
2-Hexanone	U		0.00154	0.0113	1	08/23/2017 08:07	WG1012508
n-Hexane	0.000482 J	J	0.000326	0.0113	1	08/23/2017 08:07	WG1012508
Iodomethane	U		0.00285	0.0113	1	08/23/2017 08:07	WG1012508
Isopropylbenzene	U		0.000274	0.00113	1	08/23/2017 08:07	WG1012508
p-Isopropyltoluene	U		0.000230	0.00113	1	08/23/2017 08:07	WG1012508
2-Butanone (MEK)	U		0.00527	0.0113	1	08/23/2017 08:07	WG1012508
Methylene Chloride	U		0.00113	0.00563	1	08/23/2017 08:07	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00212	0.0113	1	08/23/2017 08:07	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000239	0.00113	1	08/23/2017 08:07	WG1012508
Naphthalene	U		0.00113	0.00563	1	08/23/2017 08:07	WG1012508
n-Propylbenzene	U		0.000232	0.00113	1	08/23/2017 08:07	WG1012508
Styrene	U		0.000263	0.00113	1	08/23/2017 08:07	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000297	0.00113	1	08/23/2017 08:07	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000411	0.00113	1	08/23/2017 08:07	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000411	0.00113	1	08/23/2017 08:07	WG1012508
Tetrachloroethene	0.000805	J	0.000311	0.00113	1	08/23/2017 08:07	WG1012508
Toluene	U		0.000489	0.00563	1	08/23/2017 08:07	WG1012508
1,2,3-Trichlorobenzene	U		0.000344	0.00113	1	08/23/2017 08:07	WG1012508
1,2,4-Trichlorobenzene	U		0.000437	0.00113	1	08/23/2017 08:07	WG1012508
1,1,1-Trichloroethane	U		0.000322	0.00113	1	08/23/2017 08:07	WG1012508
1,1,2-Trichloroethane	U		0.000312	0.00113	1	08/23/2017 08:07	WG1012508
Trichloroethene	U		0.000314	0.00113	1	08/23/2017 08:07	WG1012508
Trichlorofluoromethane	U		0.000430	0.00563	1	08/23/2017 08:07	WG1012508
1,2,3-Trichloropropane	U		0.000834	0.00281	1	08/23/2017 08:07	WG1012508
1,2,4-Trimethylbenzene	U		0.000238	0.00113	1	08/23/2017 08:07	WG1012508
1,2,3-Trimethylbenzene	U		0.000323	0.00113	1	08/23/2017 08:07	WG1012508
1,3,5-Trimethylbenzene	U		0.000299	0.00113	1	08/23/2017 08:07	WG1012508
Vinyl acetate	U		0.00269	0.0113	1	08/23/2017 08:07	WG1012508
Vinyl chloride	0.000539	J	0.000328	0.00113	1	08/23/2017 08:07	WG1012508
Xylenes, Total	U		0.000786	0.00338	1	08/23/2017 08:07	WG1012508
(S) Toluene-d8	98.5			80.0-120		08/23/2017 08:07	WG1012508
(S) Dibromofluoromethane	102			74.0-131		08/23/2017 08:07	WG1012508
(S) 4-Bromofluorobenzene	98.5			64.0-132		08/23/2017 08:07	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.5		1	08/23/2017 09:43	WG1012652

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	0.0114	J	0.0108	0.0541	1	08/23/2017 08:27	WG1012508
Acrylonitrile	U		0.00194	0.0108	1	08/23/2017 08:27	WG1012508
Benzene	U		0.000292	0.00108	1	08/23/2017 08:27	WG1012508
Bromobenzene	U		0.000307	0.00108	1	08/23/2017 08:27	WG1012508
Bromodichloromethane	U		0.000275	0.00108	1	08/23/2017 08:27	WG1012508
Bromochloromethane	U		0.000422	0.00541	1	08/23/2017 08:27	WG1012508
Bromoform	U		0.000458	0.00108	1	08/23/2017 08:27	WG1012508
Bromomethane	U		0.00145	0.00541	1	08/23/2017 08:27	WG1012508
n-Butylbenzene	U		0.000279	0.00108	1	08/23/2017 08:27	WG1012508
sec-Butylbenzene	U		0.000217	0.00108	1	08/23/2017 08:27	WG1012508
tert-Butylbenzene	U		0.000223	0.00108	1	08/23/2017 08:27	WG1012508
Carbon disulfide	0.000898	J	0.000239	0.00108	1	08/23/2017 08:27	WG1012508
Carbon tetrachloride	U		0.000355	0.00108	1	08/23/2017 08:27	WG1012508
Chlorobenzene	U		0.000229	0.00108	1	08/23/2017 08:27	WG1012508
Chlorodibromomethane	U		0.000403	0.00108	1	08/23/2017 08:27	WG1012508
Chloroethane	U		0.00102	0.00541	1	08/23/2017 08:27	WG1012508
Chloroform	U		0.000248	0.00541	1	08/23/2017 08:27	WG1012508
Chloromethane	U		0.000405	0.00270	1	08/23/2017 08:27	WG1012508
2-Chlorotoluene	U		0.000325	0.00108	1	08/23/2017 08:27	WG1012508
4-Chlorotoluene	U		0.000259	0.00108	1	08/23/2017 08:27	WG1012508
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00541	1	08/23/2017 08:27	WG1012508
1,2-Dibromoethane	U		0.000371	0.00108	1	08/23/2017 08:27	WG1012508
Dibromomethane	U		0.000413	0.00108	1	08/23/2017 08:27	WG1012508
1,2-Dichlorobenzene	U		0.000330	0.00108	1	08/23/2017 08:27	WG1012508
1,3-Dichlorobenzene	U		0.000258	0.00108	1	08/23/2017 08:27	WG1012508
1,4-Dichlorobenzene	U		0.000244	0.00108	1	08/23/2017 08:27	WG1012508
Dichlorodifluoromethane	U		0.000771	0.00541	1	08/23/2017 08:27	WG1012508
1,1-Dichloroethane	U		0.000215	0.00108	1	08/23/2017 08:27	WG1012508
1,2-Dichloroethane	U		0.000287	0.00108	1	08/23/2017 08:27	WG1012508
1,1-Dichloroethene	U		0.000328	0.00108	1	08/23/2017 08:27	WG1012508
cis-1,2-Dichloroethene	0.0189		0.000254	0.00108	1	08/23/2017 08:27	WG1012508
trans-1,2-Dichloroethene	0.000512	J	0.000285	0.00108	1	08/23/2017 08:27	WG1012508
1,2-Dichloropropane	U		0.000387	0.00108	1	08/23/2017 08:27	WG1012508
1,1-Dichloropropene	U		0.000343	0.00108	1	08/23/2017 08:27	WG1012508
1,3-Dichloropropane	U		0.000224	0.00108	1	08/23/2017 08:27	WG1012508
cis-1,3-Dichloropropene	U		0.000283	0.00108	1	08/23/2017 08:27	WG1012508
trans-1,3-Dichloropropene	U		0.000289	0.00108	1	08/23/2017 08:27	WG1012508
trans-1,4-Dichloro-2-butene	U		0.000841	0.00270	1	08/23/2017 08:27	WG1012508
2,2-Dichloropropane	U		0.000302	0.00108	1	08/23/2017 08:27	WG1012508
Di-isopropyl ether	U		0.000268	0.00108	1	08/23/2017 08:27	WG1012508
Ethylbenzene	U		0.000321	0.00108	1	08/23/2017 08:27	WG1012508
Hexachloro-1,3-butadiene	U		0.000370	0.00108	1	08/23/2017 08:27	WG1012508
2-Hexanone	U		0.00148	0.0108	1	08/23/2017 08:27	WG1012508
n-Hexane	U		0.000314	0.0108	1	08/23/2017 08:27	WG1012508
Iodomethane	U		0.00274	0.0108	1	08/23/2017 08:27	WG1012508
Isopropylbenzene	U		0.000263	0.00108	1	08/23/2017 08:27	WG1012508
p-Isopropyltoluene	U		0.000221	0.00108	1	08/23/2017 08:27	WG1012508
2-Butanone (MEK)	U		0.00506	0.0108	1	08/23/2017 08:27	WG1012508
Methylene Chloride	U		0.00108	0.00541	1	08/23/2017 08:27	WG1012508
4-Methyl-2-pentanone (MIBK)	U		0.00203	0.0108	1	08/23/2017 08:27	WG1012508

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000229	0.00108	1	08/23/2017 08:27	WG1012508
Naphthalene	U		0.00108	0.00541	1	08/23/2017 08:27	WG1012508
n-Propylbenzene	U		0.000223	0.00108	1	08/23/2017 08:27	WG1012508
Styrene	U		0.000253	0.00108	1	08/23/2017 08:27	WG1012508
1,1,1,2-Tetrachloroethane	U		0.000285	0.00108	1	08/23/2017 08:27	WG1012508
1,1,2,2-Tetrachloroethane	U		0.000395	0.00108	1	08/23/2017 08:27	WG1012508
1,1,2-Trichlorotrifluoroethane	U		0.000395	0.00108	1	08/23/2017 08:27	WG1012508
Tetrachloroethene	0.0235		0.000298	0.00108	1	08/23/2017 08:27	WG1012508
Toluene	U		0.000469	0.00541	1	08/23/2017 08:27	WG1012508
1,2,3-Trichlorobenzene	U		0.000331	0.00108	1	08/23/2017 08:27	WG1012508
1,2,4-Trichlorobenzene	U		0.000420	0.00108	1	08/23/2017 08:27	WG1012508
1,1,1-Trichloroethane	U		0.000309	0.00108	1	08/23/2017 08:27	WG1012508
1,1,2-Trichloroethane	U		0.000300	0.00108	1	08/23/2017 08:27	WG1012508
Trichloroethene	U		0.000302	0.00108	1	08/23/2017 08:27	WG1012508
Trichlorofluoromethane	U		0.000413	0.00541	1	08/23/2017 08:27	WG1012508
1,2,3-Trichloropropane	U		0.000801	0.00270	1	08/23/2017 08:27	WG1012508
1,2,4-Trimethylbenzene	U		0.000228	0.00108	1	08/23/2017 08:27	WG1012508
1,2,3-Trimethylbenzene	U		0.000310	0.00108	1	08/23/2017 08:27	WG1012508
1,3,5-Trimethylbenzene	U		0.000288	0.00108	1	08/23/2017 08:27	WG1012508
Vinyl acetate	U		0.00258	0.0108	1	08/23/2017 08:27	WG1012508
Vinyl chloride	0.00127		0.000315	0.00108	1	08/23/2017 08:27	WG1012508
Xylenes, Total	U		0.000755	0.00324	1	08/23/2017 08:27	WG1012508
<i>(S) Toluene-d8</i>	98.0			80.0-120		08/23/2017 08:27	WG1012508
<i>(S) Dibromofluoromethane</i>	105			74.0-131		08/23/2017 08:27	WG1012508
<i>(S) 4-Bromofluorobenzene</i>	97.9			64.0-132		08/23/2017 08:27	WG1012508

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L930884
Samples Received: 08/19/2017
Project Number: 1413.001.02.602
Description: American Linen Project
Site: 1413.001.02.602
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Mark W. Beasley
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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B-211-65 L930884-03	10	⁸Al
B-211-70 L930884-04	12	⁹Sc
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SAMPLE SUMMARY



B-211-57 L930884-01 Solid

Collected by
Shannon McKernan

Collected date/time
08/17/17 16:20

Received date/time
08/19/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013068	1	08/24/17 05:24	08/24/17 10:10	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	1	08/17/17 16:20	08/26/17 23:32	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	25	08/17/17 16:20	08/28/17 13:28	BMB

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

B-211-60 L930884-02 Solid

Collected by
Shannon McKernan

Collected date/time
08/17/17 16:30

Received date/time
08/19/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013068	1	08/24/17 05:24	08/24/17 10:10	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	1	08/17/17 16:30	08/26/17 23:52	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	50	08/17/17 16:30	08/28/17 13:54	BMB

B-211-65 L930884-03 Solid

Collected by
Shannon McKernan

Collected date/time
08/18/17 07:45

Received date/time
08/19/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013068	1	08/24/17 05:24	08/24/17 10:10	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	1	08/18/17 07:45	08/27/17 00:11	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	50	08/18/17 07:45	08/28/17 14:20	BMB

B-211-70 L930884-04 Solid

Collected by
Shannon McKernan

Collected date/time
08/18/17 08:15

Received date/time
08/19/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013068	1	08/24/17 05:24	08/24/17 10:10	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	500	08/18/17 08:15	08/28/17 14:46	BMB

B-211-80 L930884-05 Solid

Collected by
Shannon McKernan

Collected date/time
08/18/17 08:55

Received date/time
08/19/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013068	1	08/24/17 05:24	08/24/17 10:10	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	25	08/18/17 08:55	08/28/17 15:36	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	500	08/18/17 08:55	08/28/17 19:56	BMB

B-211-90 L930884-06 Solid

Collected by
Shannon McKernan

Collected date/time
08/18/17 10:55

Received date/time
08/19/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013068	1	08/24/17 05:24	08/24/17 10:10	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	25	08/18/17 10:55	08/28/17 16:02	BMB

B-211-100 L930884-07 Solid

Collected by
Shannon McKernan

Collected date/time
08/18/17 11:50

Received date/time
08/19/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013068	1	08/24/17 05:24	08/24/17 10:10	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	1	08/18/17 11:50	08/28/17 16:28	BMB

SAMPLE SUMMARY



B-211-110 L930884-09 Solid

Collected by Shannon McKernan	Collected date/time 08/18/17 14:40	Received date/time 08/19/17 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013068	1	08/24/17 05:24	08/24/17 10:10	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1012951	1	08/18/17 14:40	08/28/17 16:54	BMB

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.8		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U	<u>JO</u>	0.0118	0.0590	1	08/26/2017 23:32	WG1012951
Acrylonitrile	U		0.00211	0.0118	1	08/26/2017 23:32	WG1012951
Benzene	U		0.000318	0.00118	1	08/26/2017 23:32	WG1012951
Bromobenzene	U		0.000335	0.00118	1	08/26/2017 23:32	WG1012951
Bromodichloromethane	U		0.000300	0.00118	1	08/26/2017 23:32	WG1012951
Bromochloromethane	U		0.000460	0.00590	1	08/26/2017 23:32	WG1012951
Bromoform	U		0.000500	0.00118	1	08/26/2017 23:32	WG1012951
Bromomethane	U		0.00158	0.00590	1	08/26/2017 23:32	WG1012951
n-Butylbenzene	U		0.000304	0.00118	1	08/26/2017 23:32	WG1012951
sec-Butylbenzene	U		0.000237	0.00118	1	08/26/2017 23:32	WG1012951
tert-Butylbenzene	U		0.000243	0.00118	1	08/26/2017 23:32	WG1012951
Carbon disulfide	0.00150		0.000261	0.00118	1	08/26/2017 23:32	WG1012951
Carbon tetrachloride	U		0.000387	0.00118	1	08/26/2017 23:32	WG1012951
Chlorobenzene	U		0.000250	0.00118	1	08/26/2017 23:32	WG1012951
Chlorodibromomethane	U		0.000440	0.00118	1	08/26/2017 23:32	WG1012951
Chloroethane	U		0.00112	0.00590	1	08/26/2017 23:32	WG1012951
Chloroform	U		0.000270	0.00590	1	08/26/2017 23:32	WG1012951
Chloromethane	U		0.000442	0.00295	1	08/26/2017 23:32	WG1012951
2-Chlorotoluene	U		0.000355	0.00118	1	08/26/2017 23:32	WG1012951
4-Chlorotoluene	U		0.000283	0.00118	1	08/26/2017 23:32	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00124	0.00590	1	08/26/2017 23:32	WG1012951
1,2-Dibromoethane	U		0.000405	0.00118	1	08/26/2017 23:32	WG1012951
Dibromomethane	U		0.000451	0.00118	1	08/26/2017 23:32	WG1012951
1,2-Dichlorobenzene	U		0.000360	0.00118	1	08/26/2017 23:32	WG1012951
1,3-Dichlorobenzene	U		0.000282	0.00118	1	08/26/2017 23:32	WG1012951
1,4-Dichlorobenzene	U		0.000267	0.00118	1	08/26/2017 23:32	WG1012951
Dichlorodifluoromethane	U		0.000841	0.00590	1	08/26/2017 23:32	WG1012951
1,1-Dichloroethane	U		0.000235	0.00118	1	08/26/2017 23:32	WG1012951
1,2-Dichloroethane	U		0.000313	0.00118	1	08/26/2017 23:32	WG1012951
1,1-Dichloroethene	U		0.000357	0.00118	1	08/26/2017 23:32	WG1012951
cis-1,2-Dichloroethene	0.0830		0.000277	0.00118	1	08/26/2017 23:32	WG1012951
trans-1,2-Dichloroethene	0.00171		0.000311	0.00118	1	08/26/2017 23:32	WG1012951
1,2-Dichloropropane	U		0.000422	0.00118	1	08/26/2017 23:32	WG1012951
1,1-Dichloropropene	U		0.000374	0.00118	1	08/26/2017 23:32	WG1012951
1,3-Dichloropropane	U		0.000244	0.00118	1	08/26/2017 23:32	WG1012951
cis-1,3-Dichloropropene	U		0.000309	0.00118	1	08/26/2017 23:32	WG1012951
trans-1,3-Dichloropropene	U		0.000315	0.00118	1	08/26/2017 23:32	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000918	0.00295	1	08/26/2017 23:32	WG1012951
2,2-Dichloropropane	U	<u>JO</u>	0.000329	0.00118	1	08/26/2017 23:32	WG1012951
Di-isopropyl ether	U		0.000292	0.00118	1	08/26/2017 23:32	WG1012951
Ethylbenzene	U		0.000350	0.00118	1	08/26/2017 23:32	WG1012951
Hexachloro-1,3-butadiene	U		0.000403	0.00118	1	08/26/2017 23:32	WG1012951
2-Hexanone	U		0.00162	0.0118	1	08/26/2017 23:32	WG1012951
n-Hexane	0.00389	<u>J</u>	0.000342	0.0118	1	08/26/2017 23:32	WG1012951
Iodomethane	U		0.00298	0.0118	1	08/26/2017 23:32	WG1012951
Isopropylbenzene	U		0.000287	0.00118	1	08/26/2017 23:32	WG1012951
p-Isopropyltoluene	U		0.000241	0.00118	1	08/26/2017 23:32	WG1012951
2-Butanone (MEK)	U	<u>JO</u>	0.00552	0.0118	1	08/26/2017 23:32	WG1012951
Methylene Chloride	U		0.00118	0.00590	1	08/26/2017 23:32	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00222	0.0118	1	08/26/2017 23:32	WG1012951

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc



Collected date/time: 08/17/17 16:20

L930884

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000250	0.00118	1	08/26/2017 23:32	WG1012951
Naphthalene	U		0.00118	0.00590	1	08/26/2017 23:32	WG1012951
n-Propylbenzene	U		0.000243	0.00118	1	08/26/2017 23:32	WG1012951
Styrene	U		0.000276	0.00118	1	08/26/2017 23:32	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000311	0.00118	1	08/26/2017 23:32	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000430	0.00118	1	08/26/2017 23:32	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000430	0.00118	1	08/26/2017 23:32	WG1012951
Tetrachloroethene	0.0294	J	0.00814	0.0295	25	08/28/2017 13:28	WG1012951
Toluene	U		0.000512	0.00590	1	08/26/2017 23:32	WG1012951
1,2,3-Trichlorobenzene	U		0.000361	0.00118	1	08/26/2017 23:32	WG1012951
1,2,4-Trichlorobenzene	U		0.000458	0.00118	1	08/26/2017 23:32	WG1012951
1,1,1-Trichloroethane	U		0.000337	0.00118	1	08/26/2017 23:32	WG1012951
1,1,2-Trichloroethane	U		0.000327	0.00118	1	08/26/2017 23:32	WG1012951
Trichloroethene	0.00212		0.000329	0.00118	1	08/26/2017 23:32	WG1012951
Trichlorofluoromethane	U		0.000451	0.00590	1	08/26/2017 23:32	WG1012951
1,2,3-Trichloropropane	U		0.000874	0.00295	1	08/26/2017 23:32	WG1012951
1,2,4-Trimethylbenzene	U		0.000249	0.00118	1	08/26/2017 23:32	WG1012951
1,2,3-Trimethylbenzene	U		0.000338	0.00118	1	08/26/2017 23:32	WG1012951
1,3,5-Trimethylbenzene	U		0.000314	0.00118	1	08/26/2017 23:32	WG1012951
Vinyl acetate	U		0.00282	0.0118	1	08/26/2017 23:32	WG1012951
Vinyl chloride	0.00600		0.000343	0.00118	1	08/26/2017 23:32	WG1012951
Xylenes, Total	U		0.000823	0.00354	1	08/26/2017 23:32	WG1012951
(S) Toluene-d8	107			80.0-120		08/26/2017 23:32	WG1012951
(S) Toluene-d8	87.1			80.0-120		08/28/2017 13:28	WG1012951
(S) Dibromofluoromethane	94.9			74.0-131		08/28/2017 13:28	WG1012951
(S) Dibromofluoromethane	109			74.0-131		08/26/2017 23:32	WG1012951
(S) 4-Bromofluorobenzene	118			64.0-132		08/26/2017 23:32	WG1012951
(S) 4-Bromofluorobenzene	97.0			64.0-132		08/28/2017 13:28	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.7		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	<u>JO</u>	0.0115	0.0577	1	08/26/2017 23:52	WG1012951
Acrylonitrile	U		0.00206	0.0115	1	08/26/2017 23:52	WG1012951
Benzene	U		0.000311	0.00115	1	08/26/2017 23:52	WG1012951
Bromobenzene	U		0.000327	0.00115	1	08/26/2017 23:52	WG1012951
Bromodichloromethane	U		0.000293	0.00115	1	08/26/2017 23:52	WG1012951
Bromochloromethane	U		0.000450	0.00577	1	08/26/2017 23:52	WG1012951
Bromoform	U		0.000489	0.00115	1	08/26/2017 23:52	WG1012951
Bromomethane	U		0.00155	0.00577	1	08/26/2017 23:52	WG1012951
n-Butylbenzene	U		0.000298	0.00115	1	08/26/2017 23:52	WG1012951
sec-Butylbenzene	U		0.000232	0.00115	1	08/26/2017 23:52	WG1012951
tert-Butylbenzene	U		0.000238	0.00115	1	08/26/2017 23:52	WG1012951
Carbon disulfide	0.00223		0.000255	0.00115	1	08/26/2017 23:52	WG1012951
Carbon tetrachloride	U		0.000378	0.00115	1	08/26/2017 23:52	WG1012951
Chlorobenzene	U		0.000244	0.00115	1	08/26/2017 23:52	WG1012951
Chlorodibromomethane	U		0.000430	0.00115	1	08/26/2017 23:52	WG1012951
Chloroethane	U		0.00109	0.00577	1	08/26/2017 23:52	WG1012951
Chloroform	U		0.000264	0.00577	1	08/26/2017 23:52	WG1012951
Chloromethane	U		0.000432	0.00288	1	08/26/2017 23:52	WG1012951
2-Chlorotoluene	U		0.000347	0.00115	1	08/26/2017 23:52	WG1012951
4-Chlorotoluene	U		0.000277	0.00115	1	08/26/2017 23:52	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00121	0.00577	1	08/26/2017 23:52	WG1012951
1,2-Dibromoethane	U		0.000396	0.00115	1	08/26/2017 23:52	WG1012951
Dibromomethane	U		0.000440	0.00115	1	08/26/2017 23:52	WG1012951
1,2-Dichlorobenzene	U		0.000352	0.00115	1	08/26/2017 23:52	WG1012951
1,3-Dichlorobenzene	U		0.000276	0.00115	1	08/26/2017 23:52	WG1012951
1,4-Dichlorobenzene	U		0.000261	0.00115	1	08/26/2017 23:52	WG1012951
Dichlorodifluoromethane	U		0.000822	0.00577	1	08/26/2017 23:52	WG1012951
1,1-Dichloroethane	U		0.000229	0.00115	1	08/26/2017 23:52	WG1012951
1,2-Dichloroethane	U		0.000306	0.00115	1	08/26/2017 23:52	WG1012951
1,1-Dichloroethene	0.00566		0.000349	0.00115	1	08/26/2017 23:52	WG1012951
cis-1,2-Dichloroethene	4.99		0.0136	0.0577	50	08/28/2017 13:54	WG1012951
trans-1,2-Dichloroethene	0.0599		0.000304	0.00115	1	08/26/2017 23:52	WG1012951
1,2-Dichloropropane	U		0.000413	0.00115	1	08/26/2017 23:52	WG1012951
1,1-Dichloropropene	U		0.000366	0.00115	1	08/26/2017 23:52	WG1012951
1,3-Dichloropropane	U		0.000239	0.00115	1	08/26/2017 23:52	WG1012951
cis-1,3-Dichloropropene	U		0.000302	0.00115	1	08/26/2017 23:52	WG1012951
trans-1,3-Dichloropropene	U		0.000308	0.00115	1	08/26/2017 23:52	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000897	0.00288	1	08/26/2017 23:52	WG1012951
2,2-Dichloropropane	U	<u>JO</u>	0.000322	0.00115	1	08/26/2017 23:52	WG1012951
Di-isopropyl ether	U		0.000286	0.00115	1	08/26/2017 23:52	WG1012951
Ethylbenzene	U		0.000342	0.00115	1	08/26/2017 23:52	WG1012951
Hexachloro-1,3-butadiene	U		0.000394	0.00115	1	08/26/2017 23:52	WG1012951
2-Hexanone	U		0.00158	0.0115	1	08/26/2017 23:52	WG1012951
n-Hexane	U		0.000334	0.0115	1	08/26/2017 23:52	WG1012951
Iodomethane	U		0.00292	0.0115	1	08/26/2017 23:52	WG1012951
Isopropylbenzene	U		0.000280	0.00115	1	08/26/2017 23:52	WG1012951
p-Isopropyltoluene	U		0.000235	0.00115	1	08/26/2017 23:52	WG1012951
2-Butanone (MEK)	U	<u>JO</u>	0.00540	0.0115	1	08/26/2017 23:52	WG1012951
Methylene Chloride	U		0.00115	0.00577	1	08/26/2017 23:52	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00217	0.0115	1	08/26/2017 23:52	WG1012951

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000244	0.00115	1	08/26/2017 23:52	WG1012951
Naphthalene	U		0.00115	0.00577	1	08/26/2017 23:52	WG1012951
n-Propylbenzene	U		0.000238	0.00115	1	08/26/2017 23:52	WG1012951
Styrene	U		0.000270	0.00115	1	08/26/2017 23:52	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000304	0.00115	1	08/26/2017 23:52	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000421	0.00115	1	08/26/2017 23:52	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000421	0.00115	1	08/26/2017 23:52	WG1012951
Tetrachloroethene	0.162		0.0159	0.0577	50	08/28/2017 13:54	WG1012951
Toluene	U		0.000500	0.00577	1	08/26/2017 23:52	WG1012951
1,2,3-Trichlorobenzene	U		0.000353	0.00115	1	08/26/2017 23:52	WG1012951
1,2,4-Trichlorobenzene	U		0.000447	0.00115	1	08/26/2017 23:52	WG1012951
1,1,1-Trichloroethane	U		0.000330	0.00115	1	08/26/2017 23:52	WG1012951
1,1,2-Trichloroethane	U		0.000319	0.00115	1	08/26/2017 23:52	WG1012951
Trichloroethene	0.000907	J	0.000322	0.00115	1	08/26/2017 23:52	WG1012951
Trichlorofluoromethane	U		0.000440	0.00577	1	08/26/2017 23:52	WG1012951
1,2,3-Trichloropropane	U		0.000854	0.00288	1	08/26/2017 23:52	WG1012951
1,2,4-Trimethylbenzene	U		0.000243	0.00115	1	08/26/2017 23:52	WG1012951
1,2,3-Trimethylbenzene	U		0.000331	0.00115	1	08/26/2017 23:52	WG1012951
1,3,5-Trimethylbenzene	U		0.000307	0.00115	1	08/26/2017 23:52	WG1012951
Vinyl acetate	U		0.00276	0.0115	1	08/26/2017 23:52	WG1012951
Vinyl chloride	1.15		0.0168	0.0577	50	08/28/2017 13:54	WG1012951
Xylenes, Total	U		0.000805	0.00346	1	08/26/2017 23:52	WG1012951
(S) Toluene-d8	108			80.0-120		08/26/2017 23:52	WG1012951
(S) Toluene-d8	99.9			80.0-120		08/28/2017 13:54	WG1012951
(S) Dibromofluoromethane	99.6			74.0-131		08/28/2017 13:54	WG1012951
(S) Dibromofluoromethane	106			74.0-131		08/26/2017 23:52	WG1012951
(S) 4-Bromofluorobenzene	97.1			64.0-132		08/28/2017 13:54	WG1012951
(S) 4-Bromofluorobenzene	113			64.0-132		08/26/2017 23:52	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.6		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U	<u>JO</u>	0.0113	0.0564	1	08/27/2017 00:11	WG1012951
Acrylonitrile	U		0.00202	0.0113	1	08/27/2017 00:11	WG1012951
Benzene	U		0.000305	0.00113	1	08/27/2017 00:11	WG1012951
Bromobenzene	U		0.000321	0.00113	1	08/27/2017 00:11	WG1012951
Bromodichloromethane	U		0.000287	0.00113	1	08/27/2017 00:11	WG1012951
Bromochloromethane	U		0.000440	0.00564	1	08/27/2017 00:11	WG1012951
Bromoform	U		0.000479	0.00113	1	08/27/2017 00:11	WG1012951
Bromomethane	U		0.00151	0.00564	1	08/27/2017 00:11	WG1012951
n-Butylbenzene	U		0.000291	0.00113	1	08/27/2017 00:11	WG1012951
sec-Butylbenzene	U		0.000227	0.00113	1	08/27/2017 00:11	WG1012951
tert-Butylbenzene	U		0.000233	0.00113	1	08/27/2017 00:11	WG1012951
Carbon disulfide	0.00239		0.000249	0.00113	1	08/27/2017 00:11	WG1012951
Carbon tetrachloride	U		0.000370	0.00113	1	08/27/2017 00:11	WG1012951
Chlorobenzene	U		0.000239	0.00113	1	08/27/2017 00:11	WG1012951
Chlorodibromomethane	U		0.000421	0.00113	1	08/27/2017 00:11	WG1012951
Chloroethane	U		0.00107	0.00564	1	08/27/2017 00:11	WG1012951
Chloroform	U		0.000258	0.00564	1	08/27/2017 00:11	WG1012951
Chloromethane	U		0.000423	0.00282	1	08/27/2017 00:11	WG1012951
2-Chlorotoluene	U		0.000340	0.00113	1	08/27/2017 00:11	WG1012951
4-Chlorotoluene	U		0.000271	0.00113	1	08/27/2017 00:11	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00119	0.00564	1	08/27/2017 00:11	WG1012951
1,2-Dibromoethane	U		0.000387	0.00113	1	08/27/2017 00:11	WG1012951
Dibromomethane	U		0.000431	0.00113	1	08/27/2017 00:11	WG1012951
1,2-Dichlorobenzene	U		0.000344	0.00113	1	08/27/2017 00:11	WG1012951
1,3-Dichlorobenzene	U		0.000270	0.00113	1	08/27/2017 00:11	WG1012951
1,4-Dichlorobenzene	U		0.000255	0.00113	1	08/27/2017 00:11	WG1012951
Dichlorodifluoromethane	U		0.000805	0.00564	1	08/27/2017 00:11	WG1012951
1,1-Dichloroethane	U		0.000225	0.00113	1	08/27/2017 00:11	WG1012951
1,2-Dichloroethane	U		0.000299	0.00113	1	08/27/2017 00:11	WG1012951
1,1-Dichloroethene	0.00722		0.000342	0.00113	1	08/27/2017 00:11	WG1012951
cis-1,2-Dichloroethene	5.58		0.0133	0.0564	50	08/28/2017 14:20	WG1012951
trans-1,2-Dichloroethene	0.0110		0.000298	0.00113	1	08/27/2017 00:11	WG1012951
1,2-Dichloropropane	U		0.000404	0.00113	1	08/27/2017 00:11	WG1012951
1,1-Dichloropropene	U		0.000358	0.00113	1	08/27/2017 00:11	WG1012951
1,3-Dichloropropane	U		0.000234	0.00113	1	08/27/2017 00:11	WG1012951
cis-1,3-Dichloropropene	U		0.000296	0.00113	1	08/27/2017 00:11	WG1012951
trans-1,3-Dichloropropene	U		0.000301	0.00113	1	08/27/2017 00:11	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000878	0.00282	1	08/27/2017 00:11	WG1012951
2,2-Dichloropropane	U		0.000315	0.00113	1	08/27/2017 00:11	WG1012951
Di-isopropyl ether	U		0.000280	0.00113	1	08/27/2017 00:11	WG1012951
Ethylbenzene	U		0.000335	0.00113	1	08/27/2017 00:11	WG1012951
Hexachloro-1,3-butadiene	U		0.000386	0.00113	1	08/27/2017 00:11	WG1012951
2-Hexanone	U		0.00155	0.0113	1	08/27/2017 00:11	WG1012951
n-Hexane	U		0.000327	0.0113	1	08/27/2017 00:11	WG1012951
Iodomethane	U		0.00286	0.0113	1	08/27/2017 00:11	WG1012951
Isopropylbenzene	U		0.000274	0.00113	1	08/27/2017 00:11	WG1012951
p-Isopropyltoluene	U		0.000230	0.00113	1	08/27/2017 00:11	WG1012951
2-Butanone (MEK)	U		0.00528	0.0113	1	08/27/2017 00:11	WG1012951
Methylene Chloride	U		0.00113	0.00564	1	08/27/2017 00:11	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00212	0.0113	1	08/27/2017 00:11	WG1012951

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000239	0.00113	1	08/27/2017 00:11	WG1012951
Naphthalene	U		0.00113	0.00564	1	08/27/2017 00:11	WG1012951
n-Propylbenzene	U		0.000233	0.00113	1	08/27/2017 00:11	WG1012951
Styrene	U		0.000264	0.00113	1	08/27/2017 00:11	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000298	0.00113	1	08/27/2017 00:11	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000412	0.00113	1	08/27/2017 00:11	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000412	0.00113	1	08/27/2017 00:11	WG1012951
Tetrachloroethene	7.42		0.0156	0.0564	50	08/28/2017 14:20	WG1012951
Toluene	0.00201	J	0.000490	0.00564	1	08/27/2017 00:11	WG1012951
1,2,3-Trichlorobenzene	U		0.000345	0.00113	1	08/27/2017 00:11	WG1012951
1,2,4-Trichlorobenzene	U		0.000438	0.00113	1	08/27/2017 00:11	WG1012951
1,1,1-Trichloroethane	U		0.000323	0.00113	1	08/27/2017 00:11	WG1012951
1,1,2-Trichloroethane	U		0.000313	0.00113	1	08/27/2017 00:11	WG1012951
Trichloroethene	1.15		0.0158	0.0564	50	08/28/2017 14:20	WG1012951
Trichlorofluoromethane	U		0.000431	0.00564	1	08/27/2017 00:11	WG1012951
1,2,3-Trichloropropane	U		0.000836	0.00282	1	08/27/2017 00:11	WG1012951
1,2,4-Trimethylbenzene	U		0.000238	0.00113	1	08/27/2017 00:11	WG1012951
1,2,3-Trimethylbenzene	U		0.000324	0.00113	1	08/27/2017 00:11	WG1012951
1,3,5-Trimethylbenzene	U		0.000300	0.00113	1	08/27/2017 00:11	WG1012951
Vinyl acetate	U		0.00270	0.0113	1	08/27/2017 00:11	WG1012951
Vinyl chloride	0.0421		0.000328	0.00113	1	08/27/2017 00:11	WG1012951
Xylenes, Total	U		0.000788	0.00339	1	08/27/2017 00:11	WG1012951
(S) Toluene-d8	108			80.0-120		08/27/2017 00:11	WG1012951
(S) Toluene-d8	103			80.0-120		08/28/2017 14:20	WG1012951
(S) Dibromofluoromethane	98.4			74.0-131		08/28/2017 14:20	WG1012951
(S) Dibromofluoromethane	107			74.0-131		08/27/2017 00:11	WG1012951
(S) 4-Bromofluorobenzene	97.8			64.0-132		08/28/2017 14:20	WG1012951
(S) 4-Bromofluorobenzene	115			64.0-132		08/27/2017 00:11	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.5		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		5.98	29.9	500	08/28/2017 14:46	WG1012951
Acrylonitrile	U		1.07	5.98	500	08/28/2017 14:46	WG1012951
Benzene	U		0.162	0.598	500	08/28/2017 14:46	WG1012951
Bromobenzene	U		0.170	0.598	500	08/28/2017 14:46	WG1012951
Bromodichloromethane	U		0.152	0.598	500	08/28/2017 14:46	WG1012951
Bromochloromethane	U		0.233	2.99	500	08/28/2017 14:46	WG1012951
Bromoform	U		0.254	0.598	500	08/28/2017 14:46	WG1012951
Bromomethane	U		0.802	2.99	500	08/28/2017 14:46	WG1012951
n-Butylbenzene	U		0.154	0.598	500	08/28/2017 14:46	WG1012951
sec-Butylbenzene	U		0.120	0.598	500	08/28/2017 14:46	WG1012951
tert-Butylbenzene	U		0.123	0.598	500	08/28/2017 14:46	WG1012951
Carbon disulfide	U		0.132	0.598	500	08/28/2017 14:46	WG1012951
Carbon tetrachloride	U		0.196	0.598	500	08/28/2017 14:46	WG1012951
Chlorobenzene	U		0.127	0.598	500	08/28/2017 14:46	WG1012951
Chlorodibromomethane	U		0.223	0.598	500	08/28/2017 14:46	WG1012951
Chloroethane	U		0.566	2.99	500	08/28/2017 14:46	WG1012951
Chloroform	U		0.136	2.99	500	08/28/2017 14:46	WG1012951
Chloromethane	U		0.225	1.50	500	08/28/2017 14:46	WG1012951
2-Chlorotoluene	U		0.180	0.598	500	08/28/2017 14:46	WG1012951
4-Chlorotoluene	U		0.144	0.598	500	08/28/2017 14:46	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.628	2.99	500	08/28/2017 14:46	WG1012951
1,2-Dibromoethane	U		0.206	0.598	500	08/28/2017 14:46	WG1012951
Dibromomethane	U		0.229	0.598	500	08/28/2017 14:46	WG1012951
1,2-Dichlorobenzene	U		0.182	0.598	500	08/28/2017 14:46	WG1012951
1,3-Dichlorobenzene	U		0.144	0.598	500	08/28/2017 14:46	WG1012951
1,4-Dichlorobenzene	U		0.135	0.598	500	08/28/2017 14:46	WG1012951
Dichlorodifluoromethane	U		0.426	2.99	500	08/28/2017 14:46	WG1012951
1,1-Dichloroethane	U		0.119	0.598	500	08/28/2017 14:46	WG1012951
1,2-Dichloroethane	U		0.158	0.598	500	08/28/2017 14:46	WG1012951
1,1-Dichloroethene	U		0.182	0.598	500	08/28/2017 14:46	WG1012951
cis-1,2-Dichloroethene	3.96		0.141	0.598	500	08/28/2017 14:46	WG1012951
trans-1,2-Dichloroethene	U		0.158	0.598	500	08/28/2017 14:46	WG1012951
1,2-Dichloropropane	U		0.214	0.598	500	08/28/2017 14:46	WG1012951
1,1-Dichloropropene	U		0.189	0.598	500	08/28/2017 14:46	WG1012951
1,3-Dichloropropane	U		0.124	0.598	500	08/28/2017 14:46	WG1012951
cis-1,3-Dichloropropene	U		0.157	0.598	500	08/28/2017 14:46	WG1012951
trans-1,3-Dichloropropene	U		0.160	0.598	500	08/28/2017 14:46	WG1012951
trans-1,4-Dichloro-2-butene	U		0.466	1.50	500	08/28/2017 14:46	WG1012951
2,2-Dichloropropane	U		0.168	0.598	500	08/28/2017 14:46	WG1012951
Di-isopropyl ether	U		0.148	0.598	500	08/28/2017 14:46	WG1012951
Ethylbenzene	U		0.177	0.598	500	08/28/2017 14:46	WG1012951
Hexachloro-1,3-butadiene	U		0.205	0.598	500	08/28/2017 14:46	WG1012951
2-Hexanone	U		0.820	5.98	500	08/28/2017 14:46	WG1012951
n-Hexane	U		0.174	5.98	500	08/28/2017 14:46	WG1012951
Iodomethane	U		1.51	5.98	500	08/28/2017 14:46	WG1012951
Isopropylbenzene	U		0.146	0.598	500	08/28/2017 14:46	WG1012951
p-Isopropyltoluene	U		0.122	0.598	500	08/28/2017 14:46	WG1012951
2-Butanone (MEK)	U		2.80	5.98	500	08/28/2017 14:46	WG1012951
Methylene Chloride	U		0.598	2.99	500	08/28/2017 14:46	WG1012951
4-Methyl-2-pentanone (MIBK)	U		1.13	5.98	500	08/28/2017 14:46	WG1012951

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.202	J	0.127	0.598	500	08/28/2017 14:46	WG1012951
Naphthalene	U		0.598	2.99	500	08/28/2017 14:46	WG1012951
n-Propylbenzene	U		0.123	0.598	500	08/28/2017 14:46	WG1012951
Styrene	U		0.140	0.598	500	08/28/2017 14:46	WG1012951
1,1,1-Tetrachloroethane	U		0.158	0.598	500	08/28/2017 14:46	WG1012951
1,1,2,2-Tetrachloroethane	U		0.218	0.598	500	08/28/2017 14:46	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.218	0.598	500	08/28/2017 14:46	WG1012951
Tetrachloroethene	46.1		0.165	0.598	500	08/28/2017 14:46	WG1012951
Toluene	U		0.260	2.99	500	08/28/2017 14:46	WG1012951
1,2,3-Trichlorobenzene	U		0.183	0.598	500	08/28/2017 14:46	WG1012951
1,2,4-Trichlorobenzene	U		0.232	0.598	500	08/28/2017 14:46	WG1012951
1,1,1-Trichloroethane	U		0.171	0.598	500	08/28/2017 14:46	WG1012951
1,1,2-Trichloroethane	U		0.165	0.598	500	08/28/2017 14:46	WG1012951
Trichloroethene	2.88		0.168	0.598	500	08/28/2017 14:46	WG1012951
Trichlorofluoromethane	U		0.229	2.99	500	08/28/2017 14:46	WG1012951
1,2,3-Trichloropropane	U		0.443	1.50	500	08/28/2017 14:46	WG1012951
1,2,4-Trimethylbenzene	U		0.127	0.598	500	08/28/2017 14:46	WG1012951
1,2,3-Trimethylbenzene	U		0.172	0.598	500	08/28/2017 14:46	WG1012951
1,3,5-Trimethylbenzene	U		0.159	0.598	500	08/28/2017 14:46	WG1012951
Vinyl acetate	U		1.44	5.98	500	08/28/2017 14:46	WG1012951
Vinyl chloride	U		0.175	0.598	500	08/28/2017 14:46	WG1012951
Xylenes, Total	U		0.418	1.80	500	08/28/2017 14:46	WG1012951
(S) Toluene-d8	104			80.0-120		08/28/2017 14:46	WG1012951
(S) Dibromofluoromethane	99.2			74.0-131		08/28/2017 14:46	WG1012951
(S) 4-Bromofluorobenzene	99.7			64.0-132		08/28/2017 14:46	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930884-04 WG1012951: Target compounds too high to run at a lower dilution.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.3		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.271	1.35	25	08/28/2017 15:36	WG1012951
Acrylonitrile	U		0.0485	0.271	25	08/28/2017 15:36	WG1012951
Benzene	U		0.00731	0.0271	25	08/28/2017 15:36	WG1012951
Bromobenzene	U		0.00769	0.0271	25	08/28/2017 15:36	WG1012951
Bromodichloromethane	U		0.00688	0.0271	25	08/28/2017 15:36	WG1012951
Bromochloromethane	U		0.0106	0.135	25	08/28/2017 15:36	WG1012951
Bromoform	U		0.0115	0.0271	25	08/28/2017 15:36	WG1012951
Bromomethane	U		0.0363	0.135	25	08/28/2017 15:36	WG1012951
n-Butylbenzene	U		0.00698	0.0271	25	08/28/2017 15:36	WG1012951
sec-Butylbenzene	U		0.00544	0.0271	25	08/28/2017 15:36	WG1012951
tert-Butylbenzene	U		0.00558	0.0271	25	08/28/2017 15:36	WG1012951
Carbon disulfide	U		0.00598	0.0271	25	08/28/2017 15:36	WG1012951
Carbon tetrachloride	U		0.00888	0.0271	25	08/28/2017 15:36	WG1012951
Chlorobenzene	U		0.00574	0.0271	25	08/28/2017 15:36	WG1012951
Chlorodibromomethane	U		0.0101	0.0271	25	08/28/2017 15:36	WG1012951
Chloroethane	U		0.0256	0.135	25	08/28/2017 15:36	WG1012951
Chloroform	U		0.00619	0.135	25	08/28/2017 15:36	WG1012951
Chloromethane	U		0.0102	0.0677	25	08/28/2017 15:36	WG1012951
2-Chlorotoluene	U		0.00814	0.0271	25	08/28/2017 15:36	WG1012951
4-Chlorotoluene	U		0.00650	0.0271	25	08/28/2017 15:36	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.0284	0.135	25	08/28/2017 15:36	WG1012951
1,2-Dibromoethane	U		0.00929	0.0271	25	08/28/2017 15:36	WG1012951
Dibromomethane	U		0.0103	0.0271	25	08/28/2017 15:36	WG1012951
1,2-Dichlorobenzene	U		0.00825	0.0271	25	08/28/2017 15:36	WG1012951
1,3-Dichlorobenzene	U		0.00648	0.0271	25	08/28/2017 15:36	WG1012951
1,4-Dichlorobenzene	U		0.00612	0.0271	25	08/28/2017 15:36	WG1012951
Dichlorodifluoromethane	U		0.0193	0.135	25	08/28/2017 15:36	WG1012951
1,1-Dichloroethane	U		0.00539	0.0271	25	08/28/2017 15:36	WG1012951
1,2-Dichloroethane	U		0.00717	0.0271	25	08/28/2017 15:36	WG1012951
1,1-Dichloroethene	U		0.00821	0.0271	25	08/28/2017 15:36	WG1012951
cis-1,2-Dichloroethene	0.172		0.00637	0.0271	25	08/28/2017 15:36	WG1012951
trans-1,2-Dichloroethene	U		0.00715	0.0271	25	08/28/2017 15:36	WG1012951
1,2-Dichloropropane	U		0.00969	0.0271	25	08/28/2017 15:36	WG1012951
1,1-Dichloropropene	U		0.00858	0.0271	25	08/28/2017 15:36	WG1012951
1,3-Dichloropropane	U		0.00561	0.0271	25	08/28/2017 15:36	WG1012951
cis-1,3-Dichloropropene	U		0.00709	0.0271	25	08/28/2017 15:36	WG1012951
trans-1,3-Dichloropropene	U		0.00723	0.0271	25	08/28/2017 15:36	WG1012951
trans-1,4-Dichloro-2-butene	U		0.0210	0.0677	25	08/28/2017 15:36	WG1012951
2,2-Dichloropropane	U		0.00756	0.0271	25	08/28/2017 15:36	WG1012951
Di-isopropyl ether	U		0.00671	0.0271	25	08/28/2017 15:36	WG1012951
Ethylbenzene	U		0.00804	0.0271	25	08/28/2017 15:36	WG1012951
Hexachloro-1,3-butadiene	U		0.00926	0.0271	25	08/28/2017 15:36	WG1012951
2-Hexanone	U		0.0370	0.271	25	08/28/2017 15:36	WG1012951
n-Hexane	U		0.00785	0.271	25	08/28/2017 15:36	WG1012951
Iodomethane	U		0.0684	0.271	25	08/28/2017 15:36	WG1012951
Isopropylbenzene	U		0.00658	0.0271	25	08/28/2017 15:36	WG1012951
p-Isopropyltoluene	U		0.00552	0.0271	25	08/28/2017 15:36	WG1012951
2-Butanone (MEK)	U		0.127	0.271	25	08/28/2017 15:36	WG1012951
Methylene Chloride	U		0.0271	0.135	25	08/28/2017 15:36	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.0509	0.271	25	08/28/2017 15:36	WG1012951

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.0548		0.00574	0.0271	25	08/28/2017 15:36	WG1012951
Naphthalene	U		0.0271	0.135	25	08/28/2017 15:36	WG1012951
n-Propylbenzene	U		0.00558	0.0271	25	08/28/2017 15:36	WG1012951
Styrene	U		0.00634	0.0271	25	08/28/2017 15:36	WG1012951
1,1,1,2-Tetrachloroethane	U		0.00715	0.0271	25	08/28/2017 15:36	WG1012951
1,1,2,2-Tetrachloroethane	U		0.00988	0.0271	25	08/28/2017 15:36	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.00988	0.0271	25	08/28/2017 15:36	WG1012951
Tetrachloroethene	9.34		0.149	0.541	500	08/28/2017 19:56	WG1012951
Toluene	U		0.0117	0.135	25	08/28/2017 15:36	WG1012951
1,2,3-Trichlorobenzene	U		0.00828	0.0271	25	08/28/2017 15:36	WG1012951
1,2,4-Trichlorobenzene	U		0.0105	0.0271	25	08/28/2017 15:36	WG1012951
1,1,1-Trichloroethane	U		0.00774	0.0271	25	08/28/2017 15:36	WG1012951
1,1,2-Trichloroethane	U		0.00749	0.0271	25	08/28/2017 15:36	WG1012951
Trichloroethene	0.495		0.00756	0.0271	25	08/28/2017 15:36	WG1012951
Trichlorofluoromethane	U		0.0103	0.135	25	08/28/2017 15:36	WG1012951
1,2,3-Trichloropropane	U		0.0200	0.0677	25	08/28/2017 15:36	WG1012951
1,2,4-Trimethylbenzene	U		0.00572	0.0271	25	08/28/2017 15:36	WG1012951
1,2,3-Trimethylbenzene	U		0.00778	0.0271	25	08/28/2017 15:36	WG1012951
1,3,5-Trimethylbenzene	U		0.00720	0.0271	25	08/28/2017 15:36	WG1012951
Vinyl acetate	U		0.0648	0.271	25	08/28/2017 15:36	WG1012951
Vinyl chloride	U		0.00788	0.0271	25	08/28/2017 15:36	WG1012951
Xylenes, Total	U		0.0188	0.0812	25	08/28/2017 15:36	WG1012951
(S) Toluene-d8	103			80.0-120		08/28/2017 15:36	WG1012951
(S) Toluene-d8	106			80.0-120		08/28/2017 19:56	WG1012951
(S) Dibromofluoromethane	93.7			74.0-131		08/28/2017 15:36	WG1012951
(S) Dibromofluoromethane	98.6			74.0-131		08/28/2017 19:56	WG1012951
(S) 4-Bromofluorobenzene	100			64.0-132		08/28/2017 15:36	WG1012951
(S) 4-Bromofluorobenzene	99.9			64.0-132		08/28/2017 19:56	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930884-05 WG1012951: Target compounds too high to run at a lower dilution.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.8		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.291	1.46	25	08/28/2017 16:02	WG1012951
Acrylonitrile	U		0.0522	0.291	25	08/28/2017 16:02	WG1012951
Benzene	U		0.00787	0.0291	25	08/28/2017 16:02	WG1012951
Bromobenzene	U		0.00828	0.0291	25	08/28/2017 16:02	WG1012951
Bromodichloromethane	U		0.00740	0.0291	25	08/28/2017 16:02	WG1012951
Bromochloromethane	U		0.0114	0.146	25	08/28/2017 16:02	WG1012951
Bromoform	U		0.0124	0.0291	25	08/28/2017 16:02	WG1012951
Bromomethane	U		0.0391	0.146	25	08/28/2017 16:02	WG1012951
n-Butylbenzene	U		0.00752	0.0291	25	08/28/2017 16:02	WG1012951
sec-Butylbenzene	U		0.00585	0.0291	25	08/28/2017 16:02	WG1012951
tert-Butylbenzene	U		0.00600	0.0291	25	08/28/2017 16:02	WG1012951
Carbon disulfide	U		0.00643	0.0291	25	08/28/2017 16:02	WG1012951
Carbon tetrachloride	U		0.00956	0.0291	25	08/28/2017 16:02	WG1012951
Chlorobenzene	U		0.00618	0.0291	25	08/28/2017 16:02	WG1012951
Chlorodibromomethane	U		0.0109	0.0291	25	08/28/2017 16:02	WG1012951
Chloroethane	U		0.0275	0.146	25	08/28/2017 16:02	WG1012951
Chloroform	U		0.00667	0.146	25	08/28/2017 16:02	WG1012951
Chloromethane	U		0.0109	0.0729	25	08/28/2017 16:02	WG1012951
2-Chlorotoluene	U		0.00877	0.0291	25	08/28/2017 16:02	WG1012951
4-Chlorotoluene	U		0.00699	0.0291	25	08/28/2017 16:02	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.0305	0.146	25	08/28/2017 16:02	WG1012951
1,2-Dibromoethane	U		0.0100	0.0291	25	08/28/2017 16:02	WG1012951
Dibromomethane	U		0.0111	0.0291	25	08/28/2017 16:02	WG1012951
1,2-Dichlorobenzene	U		0.00888	0.0291	25	08/28/2017 16:02	WG1012951
1,3-Dichlorobenzene	U		0.00697	0.0291	25	08/28/2017 16:02	WG1012951
1,4-Dichlorobenzene	U		0.00659	0.0291	25	08/28/2017 16:02	WG1012951
Dichlorodifluoromethane	U		0.0207	0.146	25	08/28/2017 16:02	WG1012951
1,1-Dichloroethane	U		0.00581	0.0291	25	08/28/2017 16:02	WG1012951
1,2-Dichloroethane	U		0.00772	0.0291	25	08/28/2017 16:02	WG1012951
1,1-Dichloroethene	0.0105	J	0.00884	0.0291	25	08/28/2017 16:02	WG1012951
cis-1,2-Dichloroethene	0.0362		0.00685	0.0291	25	08/28/2017 16:02	WG1012951
trans-1,2-Dichloroethene	0.0159	J	0.00769	0.0291	25	08/28/2017 16:02	WG1012951
1,2-Dichloropropane	U		0.0104	0.0291	25	08/28/2017 16:02	WG1012951
1,1-Dichloropropene	U		0.00923	0.0291	25	08/28/2017 16:02	WG1012951
1,3-Dichloropropane	U		0.00604	0.0291	25	08/28/2017 16:02	WG1012951
cis-1,3-Dichloropropene	U		0.00764	0.0291	25	08/28/2017 16:02	WG1012951
trans-1,3-Dichloropropene	U		0.00779	0.0291	25	08/28/2017 16:02	WG1012951
trans-1,4-Dichloro-2-butene	U		0.0226	0.0729	25	08/28/2017 16:02	WG1012951
2,2-Dichloropropane	U		0.00814	0.0291	25	08/28/2017 16:02	WG1012951
Di-isopropyl ether	U		0.00723	0.0291	25	08/28/2017 16:02	WG1012951
Ethylbenzene	U		0.00865	0.0291	25	08/28/2017 16:02	WG1012951
Hexachloro-1,3-butadiene	U		0.00997	0.0291	25	08/28/2017 16:02	WG1012951
2-Hexanone	U		0.0399	0.291	25	08/28/2017 16:02	WG1012951
n-Hexane	U		0.00845	0.291	25	08/28/2017 16:02	WG1012951
Iodomethane	U		0.0737	0.291	25	08/28/2017 16:02	WG1012951
Isopropylbenzene	U		0.00709	0.0291	25	08/28/2017 16:02	WG1012951
p-Isopropyltoluene	U		0.00594	0.0291	25	08/28/2017 16:02	WG1012951
2-Butanone (MEK)	U		0.136	0.291	25	08/28/2017 16:02	WG1012951
Methylene Chloride	U		0.0291	0.146	25	08/28/2017 16:02	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.0548	0.291	25	08/28/2017 16:02	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.0570		0.00618	0.0291	25	08/28/2017 16:02	WG1012951
Naphthalene	U		0.0291	0.146	25	08/28/2017 16:02	WG1012951
n-Propylbenzene	U		0.00600	0.0291	25	08/28/2017 16:02	WG1012951
Styrene	U		0.00682	0.0291	25	08/28/2017 16:02	WG1012951
1,1,1,2-Tetrachloroethane	U		0.00769	0.0291	25	08/28/2017 16:02	WG1012951
1,1,2,2-Tetrachloroethane	U		0.0106	0.0291	25	08/28/2017 16:02	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.0106	0.0291	25	08/28/2017 16:02	WG1012951
Tetrachloroethene	2.66		0.00804	0.0291	25	08/28/2017 16:02	WG1012951
Toluene	U		0.0126	0.146	25	08/28/2017 16:02	WG1012951
1,2,3-Trichlorobenzene	U		0.00892	0.0291	25	08/28/2017 16:02	WG1012951
1,2,4-Trichlorobenzene	U		0.0113	0.0291	25	08/28/2017 16:02	WG1012951
1,1,1-Trichloroethane	U		0.00833	0.0291	25	08/28/2017 16:02	WG1012951
1,1,2-Trichloroethane	U		0.00807	0.0291	25	08/28/2017 16:02	WG1012951
Trichloroethene	1.00		0.00814	0.0291	25	08/28/2017 16:02	WG1012951
Trichlorofluoromethane	U		0.0111	0.146	25	08/28/2017 16:02	WG1012951
1,2,3-Trichloropropane	U		0.0216	0.0729	25	08/28/2017 16:02	WG1012951
1,2,4-Trimethylbenzene	U		0.00615	0.0291	25	08/28/2017 16:02	WG1012951
1,2,3-Trimethylbenzene	U		0.00837	0.0291	25	08/28/2017 16:02	WG1012951
1,3,5-Trimethylbenzene	U		0.00775	0.0291	25	08/28/2017 16:02	WG1012951
Vinyl acetate	U		0.0697	0.291	25	08/28/2017 16:02	WG1012951
Vinyl chloride	U		0.00849	0.0291	25	08/28/2017 16:02	WG1012951
Xylenes, Total	U		0.0203	0.0874	25	08/28/2017 16:02	WG1012951
(S) Toluene-d8	107			80.0-120		08/28/2017 16:02	WG1012951
(S) Dibromofluoromethane	95.2			74.0-131		08/28/2017 16:02	WG1012951
(S) 4-Bromofluorobenzene	98.2			64.0-132		08/28/2017 16:02	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930884-06 WG1012951: Target compounds too high to run at a lower dilution.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.2		1	08/24/2017 10:10	WG1013068

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0116	0.0580	1	08/28/2017 16:28	WG1012951
Acrylonitrile	U		0.00208	0.0116	1	08/28/2017 16:28	WG1012951
Benzene	U		0.000313	0.00116	1	08/28/2017 16:28	WG1012951
Bromobenzene	U		0.000330	0.00116	1	08/28/2017 16:28	WG1012951
Bromodichloromethane	U		0.000295	0.00116	1	08/28/2017 16:28	WG1012951
Bromochloromethane	U		0.000453	0.00580	1	08/28/2017 16:28	WG1012951
Bromoform	U		0.000492	0.00116	1	08/28/2017 16:28	WG1012951
Bromomethane	U		0.00156	0.00580	1	08/28/2017 16:28	WG1012951
n-Butylbenzene	U		0.000299	0.00116	1	08/28/2017 16:28	WG1012951
sec-Butylbenzene	U		0.000233	0.00116	1	08/28/2017 16:28	WG1012951
tert-Butylbenzene	U		0.000239	0.00116	1	08/28/2017 16:28	WG1012951
Carbon disulfide	U		0.000257	0.00116	1	08/28/2017 16:28	WG1012951
Carbon tetrachloride	U		0.000381	0.00116	1	08/28/2017 16:28	WG1012951
Chlorobenzene	U		0.000246	0.00116	1	08/28/2017 16:28	WG1012951
Chlorodibromomethane	U		0.000433	0.00116	1	08/28/2017 16:28	WG1012951
Chloroethane	U		0.00110	0.00580	1	08/28/2017 16:28	WG1012951
Chloroform	U		0.000266	0.00580	1	08/28/2017 16:28	WG1012951
Chloromethane	U		0.000435	0.00290	1	08/28/2017 16:28	WG1012951
2-Chlorotoluene	U		0.000349	0.00116	1	08/28/2017 16:28	WG1012951
4-Chlorotoluene	U		0.000279	0.00116	1	08/28/2017 16:28	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00122	0.00580	1	08/28/2017 16:28	WG1012951
1,2-Dibromoethane	U		0.000398	0.00116	1	08/28/2017 16:28	WG1012951
Dibromomethane	U		0.000443	0.00116	1	08/28/2017 16:28	WG1012951
1,2-Dichlorobenzene	U		0.000354	0.00116	1	08/28/2017 16:28	WG1012951
1,3-Dichlorobenzene	U		0.000277	0.00116	1	08/28/2017 16:28	WG1012951
1,4-Dichlorobenzene	U		0.000262	0.00116	1	08/28/2017 16:28	WG1012951
Dichlorodifluoromethane	U		0.000828	0.00580	1	08/28/2017 16:28	WG1012951
1,1-Dichloroethane	U		0.000231	0.00116	1	08/28/2017 16:28	WG1012951
1,2-Dichloroethane	U		0.000308	0.00116	1	08/28/2017 16:28	WG1012951
1,1-Dichloroethene	U		0.000352	0.00116	1	08/28/2017 16:28	WG1012951
cis-1,2-Dichloroethene	U		0.000273	0.00116	1	08/28/2017 16:28	WG1012951
trans-1,2-Dichloroethene	U		0.000306	0.00116	1	08/28/2017 16:28	WG1012951
1,2-Dichloropropane	U		0.000416	0.00116	1	08/28/2017 16:28	WG1012951
1,1-Dichloropropene	U		0.000368	0.00116	1	08/28/2017 16:28	WG1012951
1,3-Dichloropropane	U		0.000240	0.00116	1	08/28/2017 16:28	WG1012951
cis-1,3-Dichloropropene	U		0.000304	0.00116	1	08/28/2017 16:28	WG1012951
trans-1,3-Dichloropropene	U		0.000310	0.00116	1	08/28/2017 16:28	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000903	0.00290	1	08/28/2017 16:28	WG1012951
2,2-Dichloropropane	U		0.000324	0.00116	1	08/28/2017 16:28	WG1012951
Di-isopropyl ether	U		0.000288	0.00116	1	08/28/2017 16:28	WG1012951
Ethylbenzene	U		0.000345	0.00116	1	08/28/2017 16:28	WG1012951
Hexachloro-1,3-butadiene	U		0.000397	0.00116	1	08/28/2017 16:28	WG1012951
2-Hexanone	U		0.00159	0.0116	1	08/28/2017 16:28	WG1012951
n-Hexane	U		0.000337	0.0116	1	08/28/2017 16:28	WG1012951
Iodomethane	U		0.00294	0.0116	1	08/28/2017 16:28	WG1012951
Isopropylbenzene	U		0.000282	0.00116	1	08/28/2017 16:28	WG1012951
p-Isopropyltoluene	U		0.000237	0.00116	1	08/28/2017 16:28	WG1012951
2-Butanone (MEK)	U		0.00543	0.0116	1	08/28/2017 16:28	WG1012951
Methylene Chloride	U		0.00116	0.00580	1	08/28/2017 16:28	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00218	0.0116	1	08/28/2017 16:28	WG1012951



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000246	0.00116	1	08/28/2017 16:28	WG1012951
Naphthalene	U		0.00116	0.00580	1	08/28/2017 16:28	WG1012951
n-Propylbenzene	U		0.000239	0.00116	1	08/28/2017 16:28	WG1012951
Styrene	U		0.000272	0.00116	1	08/28/2017 16:28	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000306	0.00116	1	08/28/2017 16:28	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000424	0.00116	1	08/28/2017 16:28	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000424	0.00116	1	08/28/2017 16:28	WG1012951
Tetrachloroethene	U		0.000320	0.00116	1	08/28/2017 16:28	WG1012951
Toluene	U		0.000504	0.00580	1	08/28/2017 16:28	WG1012951
1,2,3-Trichlorobenzene	U		0.000355	0.00116	1	08/28/2017 16:28	WG1012951
1,2,4-Trichlorobenzene	U		0.000450	0.00116	1	08/28/2017 16:28	WG1012951
1,1,1-Trichloroethane	U		0.000332	0.00116	1	08/28/2017 16:28	WG1012951
1,1,2-Trichloroethane	U		0.000322	0.00116	1	08/28/2017 16:28	WG1012951
Trichloroethene	U		0.000324	0.00116	1	08/28/2017 16:28	WG1012951
Trichlorofluoromethane	U		0.000443	0.00580	1	08/28/2017 16:28	WG1012951
1,2,3-Trichloropropane	U		0.000860	0.00290	1	08/28/2017 16:28	WG1012951
1,2,4-Trimethylbenzene	U		0.000245	0.00116	1	08/28/2017 16:28	WG1012951
1,2,3-Trimethylbenzene	U		0.000333	0.00116	1	08/28/2017 16:28	WG1012951
1,3,5-Trimethylbenzene	U		0.000309	0.00116	1	08/28/2017 16:28	WG1012951
Vinyl acetate	U		0.00277	0.0116	1	08/28/2017 16:28	WG1012951
Vinyl chloride	U		0.000338	0.00116	1	08/28/2017 16:28	WG1012951
Xylenes, Total	U		0.000810	0.00348	1	08/28/2017 16:28	WG1012951
(S) Toluene-d8	96.9			80.0-120		08/28/2017 16:28	WG1012951
(S) Dibromofluoromethane	108			74.0-131		08/28/2017 16:28	WG1012951
(S) 4-Bromofluorobenzene	99.5			64.0-132		08/28/2017 16:28	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.7		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0110	0.0551	1	08/28/2017 16:54	WG1012951
Acrylonitrile	U		0.00197	0.0110	1	08/28/2017 16:54	WG1012951
Benzene	U		0.000298	0.00110	1	08/28/2017 16:54	WG1012951
Bromobenzene	U		0.000313	0.00110	1	08/28/2017 16:54	WG1012951
Bromodichloromethane	U		0.000280	0.00110	1	08/28/2017 16:54	WG1012951
Bromochloromethane	U		0.000430	0.00551	1	08/28/2017 16:54	WG1012951
Bromoform	U		0.000468	0.00110	1	08/28/2017 16:54	WG1012951
Bromomethane	U		0.00148	0.00551	1	08/28/2017 16:54	WG1012951
n-Butylbenzene	U		0.000285	0.00110	1	08/28/2017 16:54	WG1012951
sec-Butylbenzene	U		0.000222	0.00110	1	08/28/2017 16:54	WG1012951
tert-Butylbenzene	U		0.000227	0.00110	1	08/28/2017 16:54	WG1012951
Carbon disulfide	U		0.000244	0.00110	1	08/28/2017 16:54	WG1012951
Carbon tetrachloride	U		0.000362	0.00110	1	08/28/2017 16:54	WG1012951
Chlorobenzene	U		0.000234	0.00110	1	08/28/2017 16:54	WG1012951
Chlorodibromomethane	U		0.000411	0.00110	1	08/28/2017 16:54	WG1012951
Chloroethane	U		0.00104	0.00551	1	08/28/2017 16:54	WG1012951
Chloroform	U		0.000253	0.00551	1	08/28/2017 16:54	WG1012951
Chloromethane	U		0.000414	0.00276	1	08/28/2017 16:54	WG1012951
2-Chlorotoluene	U		0.000332	0.00110	1	08/28/2017 16:54	WG1012951
4-Chlorotoluene	U		0.000265	0.00110	1	08/28/2017 16:54	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00116	0.00551	1	08/28/2017 16:54	WG1012951
1,2-Dibromoethane	U		0.000378	0.00110	1	08/28/2017 16:54	WG1012951
Dibromomethane	U		0.000421	0.00110	1	08/28/2017 16:54	WG1012951
1,2-Dichlorobenzene	U		0.000336	0.00110	1	08/28/2017 16:54	WG1012951
1,3-Dichlorobenzene	U		0.000264	0.00110	1	08/28/2017 16:54	WG1012951
1,4-Dichlorobenzene	U		0.000249	0.00110	1	08/28/2017 16:54	WG1012951
Dichlorodifluoromethane	U		0.000786	0.00551	1	08/28/2017 16:54	WG1012951
1,1-Dichloroethane	U		0.000219	0.00110	1	08/28/2017 16:54	WG1012951
1,2-Dichloroethane	U		0.000292	0.00110	1	08/28/2017 16:54	WG1012951
1,1-Dichloroethene	U		0.000334	0.00110	1	08/28/2017 16:54	WG1012951
cis-1,2-Dichloroethene	U		0.000259	0.00110	1	08/28/2017 16:54	WG1012951
trans-1,2-Dichloroethene	U		0.000291	0.00110	1	08/28/2017 16:54	WG1012951
1,2-Dichloropropane	U		0.000395	0.00110	1	08/28/2017 16:54	WG1012951
1,1-Dichloropropene	U		0.000350	0.00110	1	08/28/2017 16:54	WG1012951
1,3-Dichloropropane	U		0.000228	0.00110	1	08/28/2017 16:54	WG1012951
cis-1,3-Dichloropropene	U		0.000289	0.00110	1	08/28/2017 16:54	WG1012951
trans-1,3-Dichloropropene	U		0.000294	0.00110	1	08/28/2017 16:54	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000858	0.00276	1	08/28/2017 16:54	WG1012951
2,2-Dichloropropane	U		0.000308	0.00110	1	08/28/2017 16:54	WG1012951
Di-isopropyl ether	U		0.000273	0.00110	1	08/28/2017 16:54	WG1012951
Ethylbenzene	U		0.000328	0.00110	1	08/28/2017 16:54	WG1012951
Hexachloro-1,3-butadiene	U		0.000377	0.00110	1	08/28/2017 16:54	WG1012951
2-Hexanone	U		0.00151	0.0110	1	08/28/2017 16:54	WG1012951
n-Hexane	U		0.000320	0.0110	1	08/28/2017 16:54	WG1012951
Iodomethane	U		0.00279	0.0110	1	08/28/2017 16:54	WG1012951
Isopropylbenzene	U		0.000268	0.00110	1	08/28/2017 16:54	WG1012951
p-Isopropyltoluene	U		0.000225	0.00110	1	08/28/2017 16:54	WG1012951
2-Butanone (MEK)	U		0.00516	0.0110	1	08/28/2017 16:54	WG1012951
Methylene Chloride	U		0.00110	0.00551	1	08/28/2017 16:54	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00207	0.0110	1	08/28/2017 16:54	WG1012951

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/18/17 14:40

L930884

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000234	0.00110	1	08/28/2017 16:54	WG1012951
Naphthalene	U		0.00110	0.00551	1	08/28/2017 16:54	WG1012951
n-Propylbenzene	U		0.000227	0.00110	1	08/28/2017 16:54	WG1012951
Styrene	U		0.000258	0.00110	1	08/28/2017 16:54	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000291	0.00110	1	08/28/2017 16:54	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000403	0.00110	1	08/28/2017 16:54	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000403	0.00110	1	08/28/2017 16:54	WG1012951
Tetrachloroethene	0.00132		0.000304	0.00110	1	08/28/2017 16:54	WG1012951
Toluene	U		0.000479	0.00551	1	08/28/2017 16:54	WG1012951
1,2,3-Trichlorobenzene	U		0.000337	0.00110	1	08/28/2017 16:54	WG1012951
1,2,4-Trichlorobenzene	U		0.000428	0.00110	1	08/28/2017 16:54	WG1012951
1,1,1-Trichloroethane	U		0.000315	0.00110	1	08/28/2017 16:54	WG1012951
1,1,2-Trichloroethane	U		0.000305	0.00110	1	08/28/2017 16:54	WG1012951
Trichloroethene	0.000436	J	0.000308	0.00110	1	08/28/2017 16:54	WG1012951
Trichlorofluoromethane	U		0.000421	0.00551	1	08/28/2017 16:54	WG1012951
1,2,3-Trichloropropane	U		0.000817	0.00276	1	08/28/2017 16:54	WG1012951
1,2,4-Trimethylbenzene	U		0.000233	0.00110	1	08/28/2017 16:54	WG1012951
1,2,3-Trimethylbenzene	U		0.000316	0.00110	1	08/28/2017 16:54	WG1012951
1,3,5-Trimethylbenzene	U		0.000293	0.00110	1	08/28/2017 16:54	WG1012951
Vinyl acetate	U		0.00264	0.0110	1	08/28/2017 16:54	WG1012951
Vinyl chloride	U		0.000321	0.00110	1	08/28/2017 16:54	WG1012951
Xylenes, Total	U		0.000770	0.00331	1	08/28/2017 16:54	WG1012951
(S) Toluene-d8	95.6			80.0-120		08/28/2017 16:54	WG1012951
(S) Dibromofluoromethane	106			74.0-131		08/28/2017 16:54	WG1012951
(S) 4-Bromofluorobenzene	101			64.0-132		08/28/2017 16:54	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3244362-1 08/24/17 10:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000600			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L930884-01 Original Sample (OS) • Duplicate (DUP)

(OS) L930884-01 08/24/17 10:10 • (DUP) R3244362-3 08/24/17 10:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	84.8	85.0	1	0.269		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3244362-2 08/24/17 10:10

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	



Method Blank (MB)

(MB) R3244861-3 08/26/17 14:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3244861-3 08/26/17 14:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	U		0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	117			80.0-120
(S) Dibromofluoromethane	99.7			74.0-131
(S) 4-Bromofluorobenzene	108			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3244861-1 08/26/17 13:17 • (LCSD) R3244861-2 08/26/17 13:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.0567	0.0561	45.3	44.8	11.0-160			1.07	23
Acrylonitrile	0.125	0.101	0.101	80.6	80.7	61.0-143			0.130	20
Benzene	0.0250	0.0232	0.0234	92.6	93.5	71.0-124			0.920	20
Bromobenzene	0.0250	0.0253	0.0251	101	100	78.0-120			0.910	20
Bromodichloromethane	0.0250	0.0248	0.0243	99.1	97.0	75.0-120			2.13	20
Bromochloromethane	0.0250	0.0256	0.0258	102	103	80.0-121			0.780	20
Bromoform	0.0250	0.0255	0.0256	102	103	65.0-133			0.590	20
Bromomethane	0.0250	0.0208	0.0202	83.1	80.9	26.0-160			2.70	20
n-Butylbenzene	0.0250	0.0246	0.0240	98.4	95.9	73.0-126			2.60	20
sec-Butylbenzene	0.0250	0.0257	0.0249	103	99.8	75.0-121			3.06	20
tert-Butylbenzene	0.0250	0.0253	0.0252	101	101	74.0-122			0.400	20
Carbon disulfide	0.0250	0.0237	0.0235	94.9	93.9	53.0-130			1.12	20
Carbon tetrachloride	0.0250	0.0210	0.0209	84.1	83.7	66.0-123			0.470	20
Chlorobenzene	0.0250	0.0266	0.0266	107	106	79.0-121			0.0900	20
Chlorodibromomethane	0.0250	0.0255	0.0255	102	102	74.0-128			0.150	20
Chloroethane	0.0250	0.0218	0.0217	87.4	86.9	51.0-147			0.520	20
Chloroform	0.0250	0.0232	0.0232	92.8	92.6	73.0-123			0.210	20
Chloromethane	0.0250	0.0223	0.0220	89.4	87.9	51.0-138			1.64	20
2-Chlorotoluene	0.0250	0.0261	0.0257	104	103	72.0-124			1.31	20
4-Chlorotoluene	0.0250	0.0264	0.0255	106	102	78.0-120			3.32	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0218	0.0218	87.3	87.1	65.0-126			0.270	20
1,2-Dibromoethane	0.0250	0.0274	0.0272	110	109	78.0-122			1.04	20
Dibromomethane	0.0250	0.0232	0.0224	92.8	89.5	79.0-120			3.65	20
1,2-Dichlorobenzene	0.0250	0.0242	0.0239	96.9	95.4	80.0-120			1.53	20
1,3-Dichlorobenzene	0.0250	0.0253	0.0250	101	100	72.0-123			1.11	20
1,4-Dichlorobenzene	0.0250	0.0256	0.0251	102	101	77.0-120			1.68	20
trans-1,4-Dichloro-2-butene	0.0250	0.0254	0.0236	102	94.5	68.0-126			7.44	20
Dichlorodifluoromethane	0.0250	0.0258	0.0252	103	101	49.0-155			2.21	20
1,1-Dichloroethane	0.0250	0.0242	0.0245	96.9	97.9	70.0-128			1.01	20
1,2-Dichloroethane	0.0250	0.0230	0.0228	91.9	91.1	69.0-128			0.860	20
1,1-Dichloroethene	0.0250	0.0226	0.0222	90.6	88.7	63.0-131			2.08	20
cis-1,2-Dichloroethene	0.0250	0.0243	0.0247	97.1	98.7	74.0-123			1.71	20
trans-1,2-Dichloroethene	0.0250	0.0255	0.0253	102	101	72.0-122			1.01	20
1,2-Dichloropropane	0.0250	0.0236	0.0239	94.5	95.6	75.0-126			1.22	20
1,1-Dichloropropene	0.0250	0.0239	0.0247	95.5	98.9	72.0-130			3.59	20
1,3-Dichloropropane	0.0250	0.0266	0.0262	107	105	80.0-121			1.71	20
cis-1,3-Dichloropropene	0.0250	0.0298	0.0297	119	119	80.0-125			0.460	20
trans-1,3-Dichloropropene	0.0250	0.0277	0.0273	111	109	75.0-129			1.59	20
2,2-Dichloropropane	0.0250	0.0169	0.0171	67.8	68.3	60.0-129			0.720	20
Di-isopropyl ether	0.0250	0.0213	0.0213	85.2	85.3	62.0-133			0.120	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3244861-1 08/26/17 13:17 • (LCSD) R3244861-2 08/26/17 13:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0267	0.0264	107	106	77.0-120			1.12	20
Hexachloro-1,3-butadiene	0.0250	0.0271	0.0259	108	103	68.0-128			4.57	20
2-Hexanone	0.125	0.0985	0.0970	78.8	77.6	61.0-143			1.44	20
n-Hexane	0.0250	0.0224	0.0221	89.5	88.4	57.0-125			1.20	20
Iodomethane	0.125	0.124	0.124	99.0	99.1	67.0-132			0.0700	20
Isopropylbenzene	0.0250	0.0250	0.0249	100	99.5	75.0-120			0.580	20
p-Isopropyltoluene	0.0250	0.0268	0.0260	107	104	74.0-125			2.96	20
2-Butanone (MEK)	0.125	0.0748	0.0735	59.9	58.8	37.0-159			1.88	20
Methylene Chloride	0.0250	0.0222	0.0226	89.0	90.3	67.0-123			1.49	20
4-Methyl-2-pentanone (MIBK)	0.125	0.0992	0.0989	79.3	79.1	60.0-144			0.290	20
Methyl tert-butyl ether	0.0250	0.0192	0.0190	76.8	76.2	66.0-125			0.840	20
Naphthalene	0.0250	0.0232	0.0228	92.8	91.3	64.0-125			1.59	20
n-Propylbenzene	0.0250	0.0259	0.0254	104	102	78.0-120			2.14	20
Styrene	0.0250	0.0280	0.0273	112	109	78.0-124			2.50	20
1,1,1,2-Tetrachloroethane	0.0250	0.0238	0.0235	95.3	94.0	74.0-124			1.39	20
1,1,2,2-Tetrachloroethane	0.0250	0.0220	0.0210	88.1	84.0	73.0-120			4.76	20
Tetrachloroethene	0.0250	0.0291	0.0287	117	115	70.0-127			1.49	20
Toluene	0.0250	0.0258	0.0256	103	102	77.0-120			1.00	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0207	0.0205	82.8	81.8	64.0-135			1.23	20
1,2,3-Trichlorobenzene	0.0250	0.0259	0.0258	104	103	68.0-126			0.310	20
1,2,4-Trichlorobenzene	0.0250	0.0251	0.0250	100	99.9	70.0-127			0.550	20
1,1,1-Trichloroethane	0.0250	0.0218	0.0215	87.2	85.9	69.0-125			1.52	20
1,1,2-Trichloroethane	0.0250	0.0254	0.0252	101	101	78.0-120			0.430	20
Trichloroethene	0.0250	0.0245	0.0248	98.2	99.2	79.0-120			1.01	20
Trichlorofluoromethane	0.0250	0.0217	0.0215	86.9	85.9	59.0-136			1.06	20
1,2,3-Trichloropropane	0.0250	0.0225	0.0221	90.1	88.4	73.0-124			1.93	20
1,2,3-Trimethylbenzene	0.0250	0.0243	0.0238	97.2	95.2	76.0-120			2.11	20
1,2,4-Trimethylbenzene	0.0250	0.0251	0.0244	100	97.8	75.0-120			2.75	20
1,3,5-Trimethylbenzene	0.0250	0.0255	0.0252	102	101	75.0-120			1.41	20
Vinyl acetate	0.125	0.117	0.109	93.3	87.3	58.0-156			6.65	20
Vinyl chloride	0.0250	0.0230	0.0231	92.1	92.2	63.0-134			0.0900	20
Xylenes, Total	0.0750	0.0791	0.0790	105	105	77.0-120			0.130	20
(S) Toluene-d8				115	115	80.0-120				
(S) Dibromofluoromethane				98.8	100	74.0-131				
(S) 4-Bromofluorobenzene				105	103	64.0-132				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL (dry)	Reported Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: Calibration verification outside of acceptance limits. Result is estimated.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

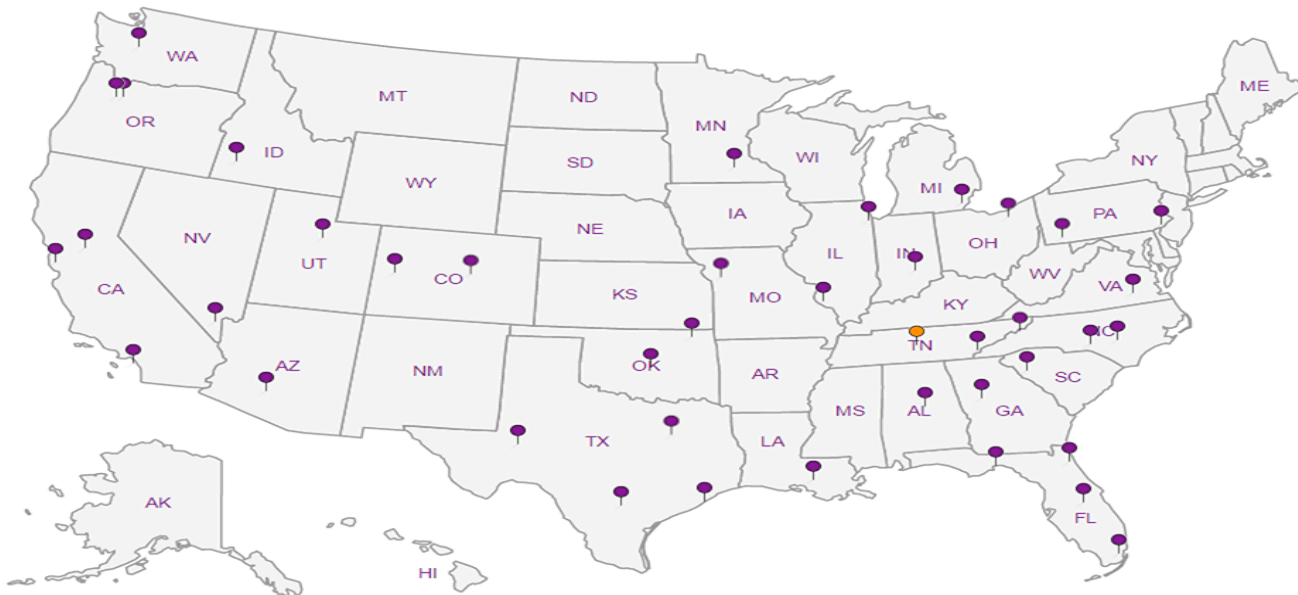
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhaldean@pesenv.com

Project Description: **American Linen Project**

Phone: 206-529-3980
Fax: 206-529-3985

Client Project #
1413.001.02.602

City/State Collected:
Lab Project #
PESENVSWA-ALP

Collected by (print):
SHANNON McKERNAN

Site/Facility ID #
1413.001.02.602

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
Date Results Needed

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 2ozClr-NoPres	NWTPHGX 40mlAmb HCl	TS 4ozClr-NoPres	V8260C 40ml/NaHSO4/Syr/MeOH	V8260C 40mlAmb-HCl
MW- B-211-57	GRAB	SS	57	8/17/17	1620	4			X	X	
MW- B-211-60		SS	60	↓	1630	4			X	X	
MW- B-211-65		SS	65	8/18/17	0745	4			X	X	
MW- B-211-70		SS	70		0815	4			X	X	
MW- B-211-80		SS	80		0855	4			X	X	
MW- B-211-90		SS	90		1055	4			X	X	
MW- B-211-100		SS	100		1150	4			X	X	
MW- B-211-85-W		GW	85		1020	6					X
MW- B-211-110	↓	SS/GW	110	↓	1440	4					X
MW-		GW				3					X

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# 930884
A069

Acctnum: PESENVSWA
Template: T126586
Prelogin: P613274
TSR: 110 Brian Ford
PB: 8/10/17 MW
Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	-01
	-02
	-03
	-04
	-05
	-06
	-07
	-08
	-09

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: <input checked="" type="checkbox"/> NP	Y
COC Signed/Accurate: <input checked="" type="checkbox"/>	N
Bottles arrive intact: <input checked="" type="checkbox"/>	N
Correct bottles used: <input checked="" type="checkbox"/>	N
Sufficient volume sent: <input checked="" type="checkbox"/>	N
If Applicable	
VOA Zero Headspace: <input checked="" type="checkbox"/>	N
Preservation Correct/Checked: <input checked="" type="checkbox"/>	N

Samples returned via:
 UPS FedEx Courier

Tracking # 7474 0921 0778

Relinquished by: (Signature) *[Signature]* Date: 8/18/17 Time: 1600

Relinquished by: (Signature) _____ Date: _____ Time: _____

Relinquished by: (Signature) _____ Date: _____ Time: _____

Received by: (Signature) _____ Trip Blank Received: Yes No
HCL/MeOH TBR

Received by: (Signature) _____ Temp: 3.0 °C Bottles Received: 38

Received for lab by: (Signature) _____ Date: 8-19-17 Time: 8:45

If preservation required by Login: Date/Time _____

Hold: _____ Condition: NCF

MEMORANDUM

TO: Project File **DATE:** September 19, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.604
TASK: August 17-18, 2017 – Soil Samples
LAB: ESC Lab ID L930884

Four (4) soil samples and one (1) groundwater sample were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington, on August 17-18, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total Solids by Standard Methods 2540 G-2011.

The results are reported in ESC Sample Delivery Group (SDG) L930884. The quarterly monitoring round occurred between August and September of 2017. Associated sample data are reported in X# ESC SDGs (SDGs L929881, L929901, L930317, L930670, L930884, L931390, L931655, L932059, L932260, L932611, L932876, L933267, L933455, L934130, L934673, L934916, and). The quality assurance review of the sample data associated with SDG L930884 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with one exception:

- Groundwater sample B-211-85-W was collected and submitted for analysis. No results are reported. PES was contacted to confirm requested analysis. PES indicated that the request for analysis was cancelled based on reported turbidity of the groundwater sample.

Sample Collection and Preservation

Samples were collected on August 17-18, 2017 in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 3.0 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for soils from the date of sample collection. All holding time criteria were met.

General Chemistry (Total Solids):

Samples were analyzed within the USEPA recommended holding time of seven days for total solids. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C for soils:* Continuing calibration verification (CCV) issues were noted by ESC for acetone, 2,2-dichloropropane, and 2-butanone (MEK) associated with analytical batch WG1012951 (analyzed on August 26, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated sample results with laboratory qualified J0 results are estimated and qualified (UJ or J).**

Method Blank Results

USEPA Method 8260C:

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blank at or above the reported detection limits (RDLs).

Total Solids by SM 2540 G 2011:

Laboratory method blank was included with the analytical batch per method requirement. The target analytes (% solids) were not detected at a significant level in the method blank and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C:

A trip blank was not collected.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicates were not collected.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Total Solids by SM 2540 G 2011:

Laboratory duplicate sample analysis was performed on client sample B-211-57. The primary/duplicate RPD for total solids analyses are within the laboratory control limit of 5%.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSDs, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils.

Total Solids by SM 2540 G 2011:

The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Refer to LCS/LCSD results for accuracy and precision data.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report.

Compound Identification and Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes. ESC notes indicate that for samples B-211-70, B-211-80, and B-211-90 the target compounds were too high to run the sample at a lower dilution.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.8		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U UJ	JO	0.0118	0.0590	1	08/26/2017 23:32	WG1012951
Acrylonitrile	U		0.00211	0.0118	1	08/26/2017 23:32	WG1012951
Benzene	U		0.000318	0.00118	1	08/26/2017 23:32	WG1012951
Bromobenzene	U		0.000335	0.00118	1	08/26/2017 23:32	WG1012951
Bromodichloromethane	U		0.000300	0.00118	1	08/26/2017 23:32	WG1012951
Bromochloromethane	U		0.000460	0.00590	1	08/26/2017 23:32	WG1012951
Bromoform	U		0.000500	0.00118	1	08/26/2017 23:32	WG1012951
Bromomethane	U		0.00158	0.00590	1	08/26/2017 23:32	WG1012951
n-Butylbenzene	U		0.000304	0.00118	1	08/26/2017 23:32	WG1012951
sec-Butylbenzene	U		0.000237	0.00118	1	08/26/2017 23:32	WG1012951
tert-Butylbenzene	U		0.000243	0.00118	1	08/26/2017 23:32	WG1012951
Carbon disulfide	0.00150		0.000261	0.00118	1	08/26/2017 23:32	WG1012951
Carbon tetrachloride	U		0.000387	0.00118	1	08/26/2017 23:32	WG1012951
Chlorobenzene	U		0.000250	0.00118	1	08/26/2017 23:32	WG1012951
Chlorodibromomethane	U		0.000440	0.00118	1	08/26/2017 23:32	WG1012951
Chloroethane	U		0.00112	0.00590	1	08/26/2017 23:32	WG1012951
Chloroform	U		0.000270	0.00590	1	08/26/2017 23:32	WG1012951
Chloromethane	U		0.000442	0.00295	1	08/26/2017 23:32	WG1012951
2-Chlorotoluene	U		0.000355	0.00118	1	08/26/2017 23:32	WG1012951
4-Chlorotoluene	U		0.000283	0.00118	1	08/26/2017 23:32	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00124	0.00590	1	08/26/2017 23:32	WG1012951
1,2-Dibromoethane	U		0.000405	0.00118	1	08/26/2017 23:32	WG1012951
Dibromomethane	U		0.000451	0.00118	1	08/26/2017 23:32	WG1012951
1,2-Dichlorobenzene	U		0.000360	0.00118	1	08/26/2017 23:32	WG1012951
1,3-Dichlorobenzene	U		0.000282	0.00118	1	08/26/2017 23:32	WG1012951
1,4-Dichlorobenzene	U		0.000267	0.00118	1	08/26/2017 23:32	WG1012951
Dichlorodifluoromethane	U		0.000841	0.00590	1	08/26/2017 23:32	WG1012951
1,1-Dichloroethane	U		0.000235	0.00118	1	08/26/2017 23:32	WG1012951
1,2-Dichloroethane	U		0.000313	0.00118	1	08/26/2017 23:32	WG1012951
1,1-Dichloroethene	U		0.000357	0.00118	1	08/26/2017 23:32	WG1012951
cis-1,2-Dichloroethene	0.0830		0.000277	0.00118	1	08/26/2017 23:32	WG1012951
trans-1,2-Dichloroethene	0.00171		0.000311	0.00118	1	08/26/2017 23:32	WG1012951
1,2-Dichloropropane	U		0.000422	0.00118	1	08/26/2017 23:32	WG1012951
1,1-Dichloropropene	U		0.000374	0.00118	1	08/26/2017 23:32	WG1012951
1,3-Dichloropropane	U		0.000244	0.00118	1	08/26/2017 23:32	WG1012951
cis-1,3-Dichloropropene	U		0.000309	0.00118	1	08/26/2017 23:32	WG1012951
trans-1,3-Dichloropropene	U		0.000315	0.00118	1	08/26/2017 23:32	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000918	0.00295	1	08/26/2017 23:32	WG1012951
2,2-Dichloropropane	U UJ	JO	0.000329	0.00118	1	08/26/2017 23:32	WG1012951
Di-isopropyl ether	U		0.000292	0.00118	1	08/26/2017 23:32	WG1012951
Ethylbenzene	U		0.000350	0.00118	1	08/26/2017 23:32	WG1012951
Hexachloro-1,3-butadiene	U		0.000403	0.00118	1	08/26/2017 23:32	WG1012951
2-Hexanone	U		0.00162	0.0118	1	08/26/2017 23:32	WG1012951
n-Hexane	0.00389 J	J	0.000342	0.0118	1	08/26/2017 23:32	WG1012951
Iodomethane	U		0.00298	0.0118	1	08/26/2017 23:32	WG1012951
Isopropylbenzene	U		0.000287	0.00118	1	08/26/2017 23:32	WG1012951
p-Isopropyltoluene	U		0.000241	0.00118	1	08/26/2017 23:32	WG1012951
2-Butanone (MEK)	U UJ	JO	0.00552	0.0118	1	08/26/2017 23:32	WG1012951
Methylene Chloride	U		0.00118	0.00590	1	08/26/2017 23:32	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00222	0.0118	1	08/26/2017 23:32	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000250	0.00118	1	08/26/2017 23:32	WG1012951
Naphthalene	U		0.00118	0.00590	1	08/26/2017 23:32	WG1012951
n-Propylbenzene	U		0.000243	0.00118	1	08/26/2017 23:32	WG1012951
Styrene	U		0.000276	0.00118	1	08/26/2017 23:32	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000311	0.00118	1	08/26/2017 23:32	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000430	0.00118	1	08/26/2017 23:32	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000430	0.00118	1	08/26/2017 23:32	WG1012951
Tetrachloroethene	0.0294 J	J	0.00814	0.0295	25	08/28/2017 13:28	WG1012951
Toluene	U		0.000512	0.00590	1	08/26/2017 23:32	WG1012951
1,2,3-Trichlorobenzene	U		0.000361	0.00118	1	08/26/2017 23:32	WG1012951
1,2,4-Trichlorobenzene	U		0.000458	0.00118	1	08/26/2017 23:32	WG1012951
1,1,1-Trichloroethane	U		0.000337	0.00118	1	08/26/2017 23:32	WG1012951
1,1,2-Trichloroethane	U		0.000327	0.00118	1	08/26/2017 23:32	WG1012951
Trichloroethene	0.00212		0.000329	0.00118	1	08/26/2017 23:32	WG1012951
Trichlorofluoromethane	U		0.000451	0.00590	1	08/26/2017 23:32	WG1012951
1,2,3-Trichloropropane	U		0.000874	0.00295	1	08/26/2017 23:32	WG1012951
1,2,4-Trimethylbenzene	U		0.000249	0.00118	1	08/26/2017 23:32	WG1012951
1,2,3-Trimethylbenzene	U		0.000338	0.00118	1	08/26/2017 23:32	WG1012951
1,3,5-Trimethylbenzene	U		0.000314	0.00118	1	08/26/2017 23:32	WG1012951
Vinyl acetate	U		0.00282	0.0118	1	08/26/2017 23:32	WG1012951
Vinyl chloride	0.00600		0.000343	0.00118	1	08/26/2017 23:32	WG1012951
Xylenes, Total	U		0.000823	0.00354	1	08/26/2017 23:32	WG1012951
(S) Toluene-d8	107			80.0-120		08/26/2017 23:32	WG1012951
(S) Toluene-d8	87.1			80.0-120		08/28/2017 13:28	WG1012951
(S) Dibromofluoromethane	94.9			74.0-131		08/28/2017 13:28	WG1012951
(S) Dibromofluoromethane	109			74.0-131		08/26/2017 23:32	WG1012951
(S) 4-Bromofluorobenzene	118			64.0-132		08/26/2017 23:32	WG1012951
(S) 4-Bromofluorobenzene	97.0			64.0-132		08/28/2017 13:28	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.7		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U UJ	<u>JO</u>	0.0115	0.0577	1	08/26/2017 23:52	WG1012951
Acrylonitrile	U		0.00206	0.0115	1	08/26/2017 23:52	WG1012951
Benzene	U		0.000311	0.00115	1	08/26/2017 23:52	WG1012951
Bromobenzene	U		0.000327	0.00115	1	08/26/2017 23:52	WG1012951
Bromodichloromethane	U		0.000293	0.00115	1	08/26/2017 23:52	WG1012951
Bromochloromethane	U		0.000450	0.00577	1	08/26/2017 23:52	WG1012951
Bromoform	U		0.000489	0.00115	1	08/26/2017 23:52	WG1012951
Bromomethane	U		0.00155	0.00577	1	08/26/2017 23:52	WG1012951
n-Butylbenzene	U		0.000298	0.00115	1	08/26/2017 23:52	WG1012951
sec-Butylbenzene	U		0.000232	0.00115	1	08/26/2017 23:52	WG1012951
tert-Butylbenzene	U		0.000238	0.00115	1	08/26/2017 23:52	WG1012951
Carbon disulfide	0.00223		0.000255	0.00115	1	08/26/2017 23:52	WG1012951
Carbon tetrachloride	U		0.000378	0.00115	1	08/26/2017 23:52	WG1012951
Chlorobenzene	U		0.000244	0.00115	1	08/26/2017 23:52	WG1012951
Chlorodibromomethane	U		0.000430	0.00115	1	08/26/2017 23:52	WG1012951
Chloroethane	U		0.00109	0.00577	1	08/26/2017 23:52	WG1012951
Chloroform	U		0.000264	0.00577	1	08/26/2017 23:52	WG1012951
Chloromethane	U		0.000432	0.00288	1	08/26/2017 23:52	WG1012951
2-Chlorotoluene	U		0.000347	0.00115	1	08/26/2017 23:52	WG1012951
4-Chlorotoluene	U		0.000277	0.00115	1	08/26/2017 23:52	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00121	0.00577	1	08/26/2017 23:52	WG1012951
1,2-Dibromoethane	U		0.000396	0.00115	1	08/26/2017 23:52	WG1012951
Dibromomethane	U		0.000440	0.00115	1	08/26/2017 23:52	WG1012951
1,2-Dichlorobenzene	U		0.000352	0.00115	1	08/26/2017 23:52	WG1012951
1,3-Dichlorobenzene	U		0.000276	0.00115	1	08/26/2017 23:52	WG1012951
1,4-Dichlorobenzene	U		0.000261	0.00115	1	08/26/2017 23:52	WG1012951
Dichlorodifluoromethane	U		0.000822	0.00577	1	08/26/2017 23:52	WG1012951
1,1-Dichloroethane	U		0.000229	0.00115	1	08/26/2017 23:52	WG1012951
1,2-Dichloroethane	U		0.000306	0.00115	1	08/26/2017 23:52	WG1012951
1,1-Dichloroethene	0.00566		0.000349	0.00115	1	08/26/2017 23:52	WG1012951
cis-1,2-Dichloroethene	4.99		0.0136	0.0577	50	08/28/2017 13:54	WG1012951
trans-1,2-Dichloroethene	0.0599		0.000304	0.00115	1	08/26/2017 23:52	WG1012951
1,2-Dichloropropane	U		0.000413	0.00115	1	08/26/2017 23:52	WG1012951
1,1-Dichloropropene	U		0.000366	0.00115	1	08/26/2017 23:52	WG1012951
1,3-Dichloropropane	U		0.000239	0.00115	1	08/26/2017 23:52	WG1012951
cis-1,3-Dichloropropene	U		0.000302	0.00115	1	08/26/2017 23:52	WG1012951
trans-1,3-Dichloropropene	U		0.000308	0.00115	1	08/26/2017 23:52	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000897	0.00288	1	08/26/2017 23:52	WG1012951
2,2-Dichloropropane	U UJ	<u>JO</u>	0.000322	0.00115	1	08/26/2017 23:52	WG1012951
Di-isopropyl ether	U		0.000286	0.00115	1	08/26/2017 23:52	WG1012951
Ethylbenzene	U		0.000342	0.00115	1	08/26/2017 23:52	WG1012951
Hexachloro-1,3-butadiene	U		0.000394	0.00115	1	08/26/2017 23:52	WG1012951
2-Hexanone	U		0.00158	0.0115	1	08/26/2017 23:52	WG1012951
n-Hexane	U		0.000334	0.0115	1	08/26/2017 23:52	WG1012951
Iodomethane	U		0.00292	0.0115	1	08/26/2017 23:52	WG1012951
Isopropylbenzene	U		0.000280	0.00115	1	08/26/2017 23:52	WG1012951
p-Isopropyltoluene	U		0.000235	0.00115	1	08/26/2017 23:52	WG1012951
2-Butanone (MEK)	U UJ	<u>JO</u>	0.00540	0.0115	1	08/26/2017 23:52	WG1012951
Methylene Chloride	U		0.00115	0.00577	1	08/26/2017 23:52	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00217	0.0115	1	08/26/2017 23:52	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000244	0.00115	1	08/26/2017 23:52	WG1012951
Naphthalene	U		0.00115	0.00577	1	08/26/2017 23:52	WG1012951
n-Propylbenzene	U		0.000238	0.00115	1	08/26/2017 23:52	WG1012951
Styrene	U		0.000270	0.00115	1	08/26/2017 23:52	WG1012951
1,1,1-Tetrachloroethane	U		0.000304	0.00115	1	08/26/2017 23:52	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000421	0.00115	1	08/26/2017 23:52	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000421	0.00115	1	08/26/2017 23:52	WG1012951
Tetrachloroethene	0.162		0.0159	0.0577	50	08/28/2017 13:54	WG1012951
Toluene	U		0.000500	0.00577	1	08/26/2017 23:52	WG1012951
1,2,3-Trichlorobenzene	U		0.000353	0.00115	1	08/26/2017 23:52	WG1012951
1,2,4-Trichlorobenzene	U		0.000447	0.00115	1	08/26/2017 23:52	WG1012951
1,1,1-Trichloroethane	U		0.000330	0.00115	1	08/26/2017 23:52	WG1012951
1,1,2-Trichloroethane	U		0.000319	0.00115	1	08/26/2017 23:52	WG1012951
Trichloroethene	0.000907 J	J	0.000322	0.00115	1	08/26/2017 23:52	WG1012951
Trichlorofluoromethane	U		0.000440	0.00577	1	08/26/2017 23:52	WG1012951
1,2,3-Trichloropropane	U		0.000854	0.00288	1	08/26/2017 23:52	WG1012951
1,2,4-Trimethylbenzene	U		0.000243	0.00115	1	08/26/2017 23:52	WG1012951
1,2,3-Trimethylbenzene	U		0.000331	0.00115	1	08/26/2017 23:52	WG1012951
1,3,5-Trimethylbenzene	U		0.000307	0.00115	1	08/26/2017 23:52	WG1012951
Vinyl acetate	U		0.00276	0.0115	1	08/26/2017 23:52	WG1012951
Vinyl chloride	1.15		0.0168	0.0577	50	08/28/2017 13:54	WG1012951
Xylenes, Total	U		0.000805	0.00346	1	08/26/2017 23:52	WG1012951
(S) Toluene-d8	108			80.0-120		08/26/2017 23:52	WG1012951
(S) Toluene-d8	99.9			80.0-120		08/28/2017 13:54	WG1012951
(S) Dibromofluoromethane	99.6			74.0-131		08/28/2017 13:54	WG1012951
(S) Dibromofluoromethane	106			74.0-131		08/26/2017 23:52	WG1012951
(S) 4-Bromofluorobenzene	97.1			64.0-132		08/28/2017 13:54	WG1012951
(S) 4-Bromofluorobenzene	113			64.0-132		08/26/2017 23:52	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.6		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U UJ	<u>JO</u>	0.0113	0.0564	1	08/27/2017 00:11	WG1012951
Acrylonitrile	U		0.00202	0.0113	1	08/27/2017 00:11	WG1012951
Benzene	U		0.000305	0.00113	1	08/27/2017 00:11	WG1012951
Bromobenzene	U		0.000321	0.00113	1	08/27/2017 00:11	WG1012951
Bromodichloromethane	U		0.000287	0.00113	1	08/27/2017 00:11	WG1012951
Bromochloromethane	U		0.000440	0.00564	1	08/27/2017 00:11	WG1012951
Bromoform	U		0.000479	0.00113	1	08/27/2017 00:11	WG1012951
Bromomethane	U		0.00151	0.00564	1	08/27/2017 00:11	WG1012951
n-Butylbenzene	U		0.000291	0.00113	1	08/27/2017 00:11	WG1012951
sec-Butylbenzene	U		0.000227	0.00113	1	08/27/2017 00:11	WG1012951
tert-Butylbenzene	U		0.000233	0.00113	1	08/27/2017 00:11	WG1012951
Carbon disulfide	0.00239		0.000249	0.00113	1	08/27/2017 00:11	WG1012951
Carbon tetrachloride	U		0.000370	0.00113	1	08/27/2017 00:11	WG1012951
Chlorobenzene	U		0.000239	0.00113	1	08/27/2017 00:11	WG1012951
Chlorodibromomethane	U		0.000421	0.00113	1	08/27/2017 00:11	WG1012951
Chloroethane	U		0.00107	0.00564	1	08/27/2017 00:11	WG1012951
Chloroform	U		0.000258	0.00564	1	08/27/2017 00:11	WG1012951
Chloromethane	U		0.000423	0.00282	1	08/27/2017 00:11	WG1012951
2-Chlorotoluene	U		0.000340	0.00113	1	08/27/2017 00:11	WG1012951
4-Chlorotoluene	U		0.000271	0.00113	1	08/27/2017 00:11	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00119	0.00564	1	08/27/2017 00:11	WG1012951
1,2-Dibromoethane	U		0.000387	0.00113	1	08/27/2017 00:11	WG1012951
Dibromomethane	U		0.000431	0.00113	1	08/27/2017 00:11	WG1012951
1,2-Dichlorobenzene	U		0.000344	0.00113	1	08/27/2017 00:11	WG1012951
1,3-Dichlorobenzene	U		0.000270	0.00113	1	08/27/2017 00:11	WG1012951
1,4-Dichlorobenzene	U		0.000255	0.00113	1	08/27/2017 00:11	WG1012951
Dichlorodifluoromethane	U		0.000805	0.00564	1	08/27/2017 00:11	WG1012951
1,1-Dichloroethane	U		0.000225	0.00113	1	08/27/2017 00:11	WG1012951
1,2-Dichloroethane	U		0.000299	0.00113	1	08/27/2017 00:11	WG1012951
1,1-Dichloroethene	0.00722		0.000342	0.00113	1	08/27/2017 00:11	WG1012951
cis-1,2-Dichloroethene	5.58		0.0133	0.0564	50	08/28/2017 14:20	WG1012951
trans-1,2-Dichloroethene	0.0110		0.000298	0.00113	1	08/27/2017 00:11	WG1012951
1,2-Dichloropropane	U		0.000404	0.00113	1	08/27/2017 00:11	WG1012951
1,1-Dichloropropene	U		0.000358	0.00113	1	08/27/2017 00:11	WG1012951
1,3-Dichloropropane	U		0.000234	0.00113	1	08/27/2017 00:11	WG1012951
cis-1,3-Dichloropropene	U		0.000296	0.00113	1	08/27/2017 00:11	WG1012951
trans-1,3-Dichloropropene	U		0.000301	0.00113	1	08/27/2017 00:11	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000878	0.00282	1	08/27/2017 00:11	WG1012951
2,2-Dichloropropane	U UJ	<u>JO</u>	0.000315	0.00113	1	08/27/2017 00:11	WG1012951
Di-isopropyl ether	U		0.000280	0.00113	1	08/27/2017 00:11	WG1012951
Ethylbenzene	U		0.000335	0.00113	1	08/27/2017 00:11	WG1012951
Hexachloro-1,3-butadiene	U		0.000386	0.00113	1	08/27/2017 00:11	WG1012951
2-Hexanone	U		0.00155	0.0113	1	08/27/2017 00:11	WG1012951
n-Hexane	U		0.000327	0.0113	1	08/27/2017 00:11	WG1012951
Iodomethane	U		0.00286	0.0113	1	08/27/2017 00:11	WG1012951
Isopropylbenzene	U		0.000274	0.00113	1	08/27/2017 00:11	WG1012951
p-Isopropyltoluene	U		0.000230	0.00113	1	08/27/2017 00:11	WG1012951
2-Butanone (MEK)	U UJ	<u>JO</u>	0.00528	0.0113	1	08/27/2017 00:11	WG1012951
Methylene Chloride	U		0.00113	0.00564	1	08/27/2017 00:11	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00212	0.0113	1	08/27/2017 00:11	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000239	0.00113	1	08/27/2017 00:11	WG1012951
Naphthalene	U		0.00113	0.00564	1	08/27/2017 00:11	WG1012951
n-Propylbenzene	U		0.000233	0.00113	1	08/27/2017 00:11	WG1012951
Styrene	U		0.000264	0.00113	1	08/27/2017 00:11	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000298	0.00113	1	08/27/2017 00:11	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000412	0.00113	1	08/27/2017 00:11	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000412	0.00113	1	08/27/2017 00:11	WG1012951
Tetrachloroethene	7.42		0.0156	0.0564	50	08/28/2017 14:20	WG1012951
Toluene	0.00201	J	0.000490	0.00564	1	08/27/2017 00:11	WG1012951
1,2,3-Trichlorobenzene	U		0.000345	0.00113	1	08/27/2017 00:11	WG1012951
1,2,4-Trichlorobenzene	U		0.000438	0.00113	1	08/27/2017 00:11	WG1012951
1,1,1-Trichloroethane	U		0.000323	0.00113	1	08/27/2017 00:11	WG1012951
1,1,2-Trichloroethane	U		0.000313	0.00113	1	08/27/2017 00:11	WG1012951
Trichloroethene	1.15		0.0158	0.0564	50	08/28/2017 14:20	WG1012951
Trichlorofluoromethane	U		0.000431	0.00564	1	08/27/2017 00:11	WG1012951
1,2,3-Trichloropropane	U		0.000836	0.00282	1	08/27/2017 00:11	WG1012951
1,2,4-Trimethylbenzene	U		0.000238	0.00113	1	08/27/2017 00:11	WG1012951
1,2,3-Trimethylbenzene	U		0.000324	0.00113	1	08/27/2017 00:11	WG1012951
1,3,5-Trimethylbenzene	U		0.000300	0.00113	1	08/27/2017 00:11	WG1012951
Vinyl acetate	U		0.00270	0.0113	1	08/27/2017 00:11	WG1012951
Vinyl chloride	0.0421		0.000328	0.00113	1	08/27/2017 00:11	WG1012951
Xylenes, Total	U		0.000788	0.00339	1	08/27/2017 00:11	WG1012951
(S) Toluene-d8	108			80.0-120		08/27/2017 00:11	WG1012951
(S) Toluene-d8	103			80.0-120		08/28/2017 14:20	WG1012951
(S) Dibromofluoromethane	98.4			74.0-131		08/28/2017 14:20	WG1012951
(S) Dibromofluoromethane	107			74.0-131		08/27/2017 00:11	WG1012951
(S) 4-Bromofluorobenzene	97.8			64.0-132		08/28/2017 14:20	WG1012951
(S) 4-Bromofluorobenzene	115			64.0-132		08/27/2017 00:11	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.5		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		5.98	29.9	500	08/28/2017 14:46	WG1012951
Acrylonitrile	U		1.07	5.98	500	08/28/2017 14:46	WG1012951
Benzene	U		0.162	0.598	500	08/28/2017 14:46	WG1012951
Bromobenzene	U		0.170	0.598	500	08/28/2017 14:46	WG1012951
Bromodichloromethane	U		0.152	0.598	500	08/28/2017 14:46	WG1012951
Bromochloromethane	U		0.233	2.99	500	08/28/2017 14:46	WG1012951
Bromoform	U		0.254	0.598	500	08/28/2017 14:46	WG1012951
Bromomethane	U		0.802	2.99	500	08/28/2017 14:46	WG1012951
n-Butylbenzene	U		0.154	0.598	500	08/28/2017 14:46	WG1012951
sec-Butylbenzene	U		0.120	0.598	500	08/28/2017 14:46	WG1012951
tert-Butylbenzene	U		0.123	0.598	500	08/28/2017 14:46	WG1012951
Carbon disulfide	U		0.132	0.598	500	08/28/2017 14:46	WG1012951
Carbon tetrachloride	U		0.196	0.598	500	08/28/2017 14:46	WG1012951
Chlorobenzene	U		0.127	0.598	500	08/28/2017 14:46	WG1012951
Chlorodibromomethane	U		0.223	0.598	500	08/28/2017 14:46	WG1012951
Chloroethane	U		0.566	2.99	500	08/28/2017 14:46	WG1012951
Chloroform	U		0.136	2.99	500	08/28/2017 14:46	WG1012951
Chloromethane	U		0.225	1.50	500	08/28/2017 14:46	WG1012951
2-Chlorotoluene	U		0.180	0.598	500	08/28/2017 14:46	WG1012951
4-Chlorotoluene	U		0.144	0.598	500	08/28/2017 14:46	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.628	2.99	500	08/28/2017 14:46	WG1012951
1,2-Dibromoethane	U		0.206	0.598	500	08/28/2017 14:46	WG1012951
Dibromomethane	U		0.229	0.598	500	08/28/2017 14:46	WG1012951
1,2-Dichlorobenzene	U		0.182	0.598	500	08/28/2017 14:46	WG1012951
1,3-Dichlorobenzene	U		0.144	0.598	500	08/28/2017 14:46	WG1012951
1,4-Dichlorobenzene	U		0.135	0.598	500	08/28/2017 14:46	WG1012951
Dichlorodifluoromethane	U		0.426	2.99	500	08/28/2017 14:46	WG1012951
1,1-Dichloroethane	U		0.119	0.598	500	08/28/2017 14:46	WG1012951
1,2-Dichloroethane	U		0.158	0.598	500	08/28/2017 14:46	WG1012951
1,1-Dichloroethene	U		0.182	0.598	500	08/28/2017 14:46	WG1012951
cis-1,2-Dichloroethene	3.96		0.141	0.598	500	08/28/2017 14:46	WG1012951
trans-1,2-Dichloroethene	U		0.158	0.598	500	08/28/2017 14:46	WG1012951
1,2-Dichloropropane	U		0.214	0.598	500	08/28/2017 14:46	WG1012951
1,1-Dichloropropene	U		0.189	0.598	500	08/28/2017 14:46	WG1012951
1,3-Dichloropropane	U		0.124	0.598	500	08/28/2017 14:46	WG1012951
cis-1,3-Dichloropropene	U		0.157	0.598	500	08/28/2017 14:46	WG1012951
trans-1,3-Dichloropropene	U		0.160	0.598	500	08/28/2017 14:46	WG1012951
trans-1,4-Dichloro-2-butene	U		0.466	1.50	500	08/28/2017 14:46	WG1012951
2,2-Dichloropropane	U		0.168	0.598	500	08/28/2017 14:46	WG1012951
Di-isopropyl ether	U		0.148	0.598	500	08/28/2017 14:46	WG1012951
Ethylbenzene	U		0.177	0.598	500	08/28/2017 14:46	WG1012951
Hexachloro-1,3-butadiene	U		0.205	0.598	500	08/28/2017 14:46	WG1012951
2-Hexanone	U		0.820	5.98	500	08/28/2017 14:46	WG1012951
n-Hexane	U		0.174	5.98	500	08/28/2017 14:46	WG1012951
Iodomethane	U		1.51	5.98	500	08/28/2017 14:46	WG1012951
Isopropylbenzene	U		0.146	0.598	500	08/28/2017 14:46	WG1012951
p-Isopropyltoluene	U		0.122	0.598	500	08/28/2017 14:46	WG1012951
2-Butanone (MEK)	U		2.80	5.98	500	08/28/2017 14:46	WG1012951
Methylene Chloride	U		0.598	2.99	500	08/28/2017 14:46	WG1012951
4-Methyl-2-pentanone (MIBK)	U		1.13	5.98	500	08/28/2017 14:46	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.202 J	J	0.127	0.598	500	08/28/2017 14:46	WG1012951
Naphthalene	U		0.598	2.99	500	08/28/2017 14:46	WG1012951
n-Propylbenzene	U		0.123	0.598	500	08/28/2017 14:46	WG1012951
Styrene	U		0.140	0.598	500	08/28/2017 14:46	WG1012951
1,1,1,2-Tetrachloroethane	U		0.158	0.598	500	08/28/2017 14:46	WG1012951
1,1,2,2-Tetrachloroethane	U		0.218	0.598	500	08/28/2017 14:46	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.218	0.598	500	08/28/2017 14:46	WG1012951
Tetrachloroethene	46.1		0.165	0.598	500	08/28/2017 14:46	WG1012951
Toluene	U		0.260	2.99	500	08/28/2017 14:46	WG1012951
1,2,3-Trichlorobenzene	U		0.183	0.598	500	08/28/2017 14:46	WG1012951
1,2,4-Trichlorobenzene	U		0.232	0.598	500	08/28/2017 14:46	WG1012951
1,1,1-Trichloroethane	U		0.171	0.598	500	08/28/2017 14:46	WG1012951
1,1,2-Trichloroethane	U		0.165	0.598	500	08/28/2017 14:46	WG1012951
Trichloroethene	2.88		0.168	0.598	500	08/28/2017 14:46	WG1012951
Trichlorofluoromethane	U		0.229	2.99	500	08/28/2017 14:46	WG1012951
1,2,3-Trichloropropane	U		0.443	1.50	500	08/28/2017 14:46	WG1012951
1,2,4-Trimethylbenzene	U		0.127	0.598	500	08/28/2017 14:46	WG1012951
1,2,3-Trimethylbenzene	U		0.172	0.598	500	08/28/2017 14:46	WG1012951
1,3,5-Trimethylbenzene	U		0.159	0.598	500	08/28/2017 14:46	WG1012951
Vinyl acetate	U		1.44	5.98	500	08/28/2017 14:46	WG1012951
Vinyl chloride	U		0.175	0.598	500	08/28/2017 14:46	WG1012951
Xylenes, Total	U		0.418	1.80	500	08/28/2017 14:46	WG1012951
(S) Toluene-d8	104			80.0-120		08/28/2017 14:46	WG1012951
(S) Dibromofluoromethane	99.2			74.0-131		08/28/2017 14:46	WG1012951
(S) 4-Bromofluorobenzene	99.7			64.0-132		08/28/2017 14:46	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930884-04 WG1012951: Target compounds too high to run at a lower dilution.

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.3		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.271	1.35	25	08/28/2017 15:36	WG1012951
Acrylonitrile	U		0.0485	0.271	25	08/28/2017 15:36	WG1012951
Benzene	U		0.00731	0.0271	25	08/28/2017 15:36	WG1012951
Bromobenzene	U		0.00769	0.0271	25	08/28/2017 15:36	WG1012951
Bromodichloromethane	U		0.00688	0.0271	25	08/28/2017 15:36	WG1012951
Bromochloromethane	U		0.0106	0.135	25	08/28/2017 15:36	WG1012951
Bromoform	U		0.0115	0.0271	25	08/28/2017 15:36	WG1012951
Bromomethane	U		0.0363	0.135	25	08/28/2017 15:36	WG1012951
n-Butylbenzene	U		0.00698	0.0271	25	08/28/2017 15:36	WG1012951
sec-Butylbenzene	U		0.00544	0.0271	25	08/28/2017 15:36	WG1012951
tert-Butylbenzene	U		0.00558	0.0271	25	08/28/2017 15:36	WG1012951
Carbon disulfide	U		0.00598	0.0271	25	08/28/2017 15:36	WG1012951
Carbon tetrachloride	U		0.00888	0.0271	25	08/28/2017 15:36	WG1012951
Chlorobenzene	U		0.00574	0.0271	25	08/28/2017 15:36	WG1012951
Chlorodibromomethane	U		0.0101	0.0271	25	08/28/2017 15:36	WG1012951
Chloroethane	U		0.0256	0.135	25	08/28/2017 15:36	WG1012951
Chloroform	U		0.00619	0.135	25	08/28/2017 15:36	WG1012951
Chloromethane	U		0.0102	0.0677	25	08/28/2017 15:36	WG1012951
2-Chlorotoluene	U		0.00814	0.0271	25	08/28/2017 15:36	WG1012951
4-Chlorotoluene	U		0.00650	0.0271	25	08/28/2017 15:36	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.0284	0.135	25	08/28/2017 15:36	WG1012951
1,2-Dibromoethane	U		0.00929	0.0271	25	08/28/2017 15:36	WG1012951
Dibromomethane	U		0.0103	0.0271	25	08/28/2017 15:36	WG1012951
1,2-Dichlorobenzene	U		0.00825	0.0271	25	08/28/2017 15:36	WG1012951
1,3-Dichlorobenzene	U		0.00648	0.0271	25	08/28/2017 15:36	WG1012951
1,4-Dichlorobenzene	U		0.00612	0.0271	25	08/28/2017 15:36	WG1012951
Dichlorodifluoromethane	U		0.0193	0.135	25	08/28/2017 15:36	WG1012951
1,1-Dichloroethane	U		0.00539	0.0271	25	08/28/2017 15:36	WG1012951
1,2-Dichloroethane	U		0.00717	0.0271	25	08/28/2017 15:36	WG1012951
1,1-Dichloroethene	U		0.00821	0.0271	25	08/28/2017 15:36	WG1012951
cis-1,2-Dichloroethene	0.172		0.00637	0.0271	25	08/28/2017 15:36	WG1012951
trans-1,2-Dichloroethene	U		0.00715	0.0271	25	08/28/2017 15:36	WG1012951
1,2-Dichloropropane	U		0.00969	0.0271	25	08/28/2017 15:36	WG1012951
1,1-Dichloropropene	U		0.00858	0.0271	25	08/28/2017 15:36	WG1012951
1,3-Dichloropropane	U		0.00561	0.0271	25	08/28/2017 15:36	WG1012951
cis-1,3-Dichloropropene	U		0.00709	0.0271	25	08/28/2017 15:36	WG1012951
trans-1,3-Dichloropropene	U		0.00723	0.0271	25	08/28/2017 15:36	WG1012951
trans-1,4-Dichloro-2-butene	U		0.0210	0.0677	25	08/28/2017 15:36	WG1012951
2,2-Dichloropropane	U		0.00756	0.0271	25	08/28/2017 15:36	WG1012951
Di-isopropyl ether	U		0.00671	0.0271	25	08/28/2017 15:36	WG1012951
Ethylbenzene	U		0.00804	0.0271	25	08/28/2017 15:36	WG1012951
Hexachloro-1,3-butadiene	U		0.00926	0.0271	25	08/28/2017 15:36	WG1012951
2-Hexanone	U		0.0370	0.271	25	08/28/2017 15:36	WG1012951
n-Hexane	U		0.00785	0.271	25	08/28/2017 15:36	WG1012951
Iodomethane	U		0.0684	0.271	25	08/28/2017 15:36	WG1012951
Isopropylbenzene	U		0.00658	0.0271	25	08/28/2017 15:36	WG1012951
p-Isopropyltoluene	U		0.00552	0.0271	25	08/28/2017 15:36	WG1012951
2-Butanone (MEK)	U		0.127	0.271	25	08/28/2017 15:36	WG1012951
Methylene Chloride	U		0.0271	0.135	25	08/28/2017 15:36	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.0509	0.271	25	08/28/2017 15:36	WG1012951

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.0548		0.00574	0.0271	25	08/28/2017 15:36	WG1012951
Naphthalene	U		0.0271	0.135	25	08/28/2017 15:36	WG1012951
n-Propylbenzene	U		0.00558	0.0271	25	08/28/2017 15:36	WG1012951
Styrene	U		0.00634	0.0271	25	08/28/2017 15:36	WG1012951
1,1,1,2-Tetrachloroethane	U		0.00715	0.0271	25	08/28/2017 15:36	WG1012951
1,1,2,2-Tetrachloroethane	U		0.00988	0.0271	25	08/28/2017 15:36	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.00988	0.0271	25	08/28/2017 15:36	WG1012951
Tetrachloroethene	9.34		0.149	0.541	500	08/28/2017 19:56	WG1012951
Toluene	U		0.0117	0.135	25	08/28/2017 15:36	WG1012951
1,2,3-Trichlorobenzene	U		0.00828	0.0271	25	08/28/2017 15:36	WG1012951
1,2,4-Trichlorobenzene	U		0.0105	0.0271	25	08/28/2017 15:36	WG1012951
1,1,1-Trichloroethane	U		0.00774	0.0271	25	08/28/2017 15:36	WG1012951
1,1,2-Trichloroethane	U		0.00749	0.0271	25	08/28/2017 15:36	WG1012951
Trichloroethene	0.495		0.00756	0.0271	25	08/28/2017 15:36	WG1012951
Trichlorofluoromethane	U		0.0103	0.135	25	08/28/2017 15:36	WG1012951
1,2,3-Trichloropropane	U		0.0200	0.0677	25	08/28/2017 15:36	WG1012951
1,2,4-Trimethylbenzene	U		0.00572	0.0271	25	08/28/2017 15:36	WG1012951
1,2,3-Trimethylbenzene	U		0.00778	0.0271	25	08/28/2017 15:36	WG1012951
1,3,5-Trimethylbenzene	U		0.00720	0.0271	25	08/28/2017 15:36	WG1012951
Vinyl acetate	U		0.0648	0.271	25	08/28/2017 15:36	WG1012951
Vinyl chloride	U		0.00788	0.0271	25	08/28/2017 15:36	WG1012951
Xylenes, Total	U		0.0188	0.0812	25	08/28/2017 15:36	WG1012951
(S) Toluene-d8	103			80.0-120		08/28/2017 15:36	WG1012951
(S) Toluene-d8	106			80.0-120		08/28/2017 19:56	WG1012951
(S) Dibromofluoromethane	93.7			74.0-131		08/28/2017 15:36	WG1012951
(S) Dibromofluoromethane	98.6			74.0-131		08/28/2017 19:56	WG1012951
(S) 4-Bromofluorobenzene	100			64.0-132		08/28/2017 15:36	WG1012951
(S) 4-Bromofluorobenzene	99.9			64.0-132		08/28/2017 19:56	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930884-05 WG1012951: Target compounds too high to run at a lower dilution.

JC 9/19/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.8		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.291	1.46	25	08/28/2017 16:02	WG1012951
Acrylonitrile	U		0.0522	0.291	25	08/28/2017 16:02	WG1012951
Benzene	U		0.00787	0.0291	25	08/28/2017 16:02	WG1012951
Bromobenzene	U		0.00828	0.0291	25	08/28/2017 16:02	WG1012951
Bromodichloromethane	U		0.00740	0.0291	25	08/28/2017 16:02	WG1012951
Bromochloromethane	U		0.0114	0.146	25	08/28/2017 16:02	WG1012951
Bromoform	U		0.0124	0.0291	25	08/28/2017 16:02	WG1012951
Bromomethane	U		0.0391	0.146	25	08/28/2017 16:02	WG1012951
n-Butylbenzene	U		0.00752	0.0291	25	08/28/2017 16:02	WG1012951
sec-Butylbenzene	U		0.00585	0.0291	25	08/28/2017 16:02	WG1012951
tert-Butylbenzene	U		0.00600	0.0291	25	08/28/2017 16:02	WG1012951
Carbon disulfide	U		0.00643	0.0291	25	08/28/2017 16:02	WG1012951
Carbon tetrachloride	U		0.00956	0.0291	25	08/28/2017 16:02	WG1012951
Chlorobenzene	U		0.00618	0.0291	25	08/28/2017 16:02	WG1012951
Chlorodibromomethane	U		0.0109	0.0291	25	08/28/2017 16:02	WG1012951
Chloroethane	U		0.0275	0.146	25	08/28/2017 16:02	WG1012951
Chloroform	U		0.00667	0.146	25	08/28/2017 16:02	WG1012951
Chloromethane	U		0.0109	0.0729	25	08/28/2017 16:02	WG1012951
2-Chlorotoluene	U		0.00877	0.0291	25	08/28/2017 16:02	WG1012951
4-Chlorotoluene	U		0.00699	0.0291	25	08/28/2017 16:02	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.0305	0.146	25	08/28/2017 16:02	WG1012951
1,2-Dibromoethane	U		0.0100	0.0291	25	08/28/2017 16:02	WG1012951
Dibromomethane	U		0.0111	0.0291	25	08/28/2017 16:02	WG1012951
1,2-Dichlorobenzene	U		0.00888	0.0291	25	08/28/2017 16:02	WG1012951
1,3-Dichlorobenzene	U		0.00697	0.0291	25	08/28/2017 16:02	WG1012951
1,4-Dichlorobenzene	U		0.00659	0.0291	25	08/28/2017 16:02	WG1012951
Dichlorodifluoromethane	U		0.0207	0.146	25	08/28/2017 16:02	WG1012951
1,1-Dichloroethane	U		0.00581	0.0291	25	08/28/2017 16:02	WG1012951
1,2-Dichloroethane	U		0.00772	0.0291	25	08/28/2017 16:02	WG1012951
1,1-Dichloroethene	0.0105	J	0.00884	0.0291	25	08/28/2017 16:02	WG1012951
cis-1,2-Dichloroethene	0.0362		0.00685	0.0291	25	08/28/2017 16:02	WG1012951
trans-1,2-Dichloroethene	0.0159	J	0.00769	0.0291	25	08/28/2017 16:02	WG1012951
1,2-Dichloropropane	U		0.0104	0.0291	25	08/28/2017 16:02	WG1012951
1,1-Dichloropropene	U		0.00923	0.0291	25	08/28/2017 16:02	WG1012951
1,3-Dichloropropane	U		0.00604	0.0291	25	08/28/2017 16:02	WG1012951
cis-1,3-Dichloropropene	U		0.00764	0.0291	25	08/28/2017 16:02	WG1012951
trans-1,3-Dichloropropene	U		0.00779	0.0291	25	08/28/2017 16:02	WG1012951
trans-1,4-Dichloro-2-butene	U		0.0226	0.0729	25	08/28/2017 16:02	WG1012951
2,2-Dichloropropane	U		0.00814	0.0291	25	08/28/2017 16:02	WG1012951
Di-isopropyl ether	U		0.00723	0.0291	25	08/28/2017 16:02	WG1012951
Ethylbenzene	U		0.00865	0.0291	25	08/28/2017 16:02	WG1012951
Hexachloro-1,3-butadiene	U		0.00997	0.0291	25	08/28/2017 16:02	WG1012951
2-Hexanone	U		0.0399	0.291	25	08/28/2017 16:02	WG1012951
n-Hexane	U		0.00845	0.291	25	08/28/2017 16:02	WG1012951
Iodomethane	U		0.0737	0.291	25	08/28/2017 16:02	WG1012951
Isopropylbenzene	U		0.00709	0.0291	25	08/28/2017 16:02	WG1012951
p-Isopropyltoluene	U		0.00594	0.0291	25	08/28/2017 16:02	WG1012951
2-Butanone (MEK)	U		0.136	0.291	25	08/28/2017 16:02	WG1012951
Methylene Chloride	U		0.0291	0.146	25	08/28/2017 16:02	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.0548	0.291	25	08/28/2017 16:02	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.0570		0.00618	0.0291	25	08/28/2017 16:02	WG1012951
Naphthalene	U		0.0291	0.146	25	08/28/2017 16:02	WG1012951
n-Propylbenzene	U		0.00600	0.0291	25	08/28/2017 16:02	WG1012951
Styrene	U		0.00682	0.0291	25	08/28/2017 16:02	WG1012951
1,1,1,2-Tetrachloroethane	U		0.00769	0.0291	25	08/28/2017 16:02	WG1012951
1,1,2,2-Tetrachloroethane	U		0.0106	0.0291	25	08/28/2017 16:02	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.0106	0.0291	25	08/28/2017 16:02	WG1012951
Tetrachloroethene	2.66		0.00804	0.0291	25	08/28/2017 16:02	WG1012951
Toluene	U		0.0126	0.146	25	08/28/2017 16:02	WG1012951
1,2,3-Trichlorobenzene	U		0.00892	0.0291	25	08/28/2017 16:02	WG1012951
1,2,4-Trichlorobenzene	U		0.0113	0.0291	25	08/28/2017 16:02	WG1012951
1,1,1-Trichloroethane	U		0.00833	0.0291	25	08/28/2017 16:02	WG1012951
1,1,2-Trichloroethane	U		0.00807	0.0291	25	08/28/2017 16:02	WG1012951
Trichloroethene	1.00		0.00814	0.0291	25	08/28/2017 16:02	WG1012951
Trichlorofluoromethane	U		0.0111	0.146	25	08/28/2017 16:02	WG1012951
1,2,3-Trichloropropane	U		0.0216	0.0729	25	08/28/2017 16:02	WG1012951
1,2,4-Trimethylbenzene	U		0.00615	0.0291	25	08/28/2017 16:02	WG1012951
1,2,3-Trimethylbenzene	U		0.00837	0.0291	25	08/28/2017 16:02	WG1012951
1,3,5-Trimethylbenzene	U		0.00775	0.0291	25	08/28/2017 16:02	WG1012951
Vinyl acetate	U		0.0697	0.291	25	08/28/2017 16:02	WG1012951
Vinyl chloride	U		0.00849	0.0291	25	08/28/2017 16:02	WG1012951
Xylenes, Total	U		0.0203	0.0874	25	08/28/2017 16:02	WG1012951
(S) Toluene-d8	107			80.0-120		08/28/2017 16:02	WG1012951
(S) Dibromofluoromethane	95.2			74.0-131		08/28/2017 16:02	WG1012951
(S) 4-Bromofluorobenzene	98.2			64.0-132		08/28/2017 16:02	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L930884-06 WG1012951: Target compounds too high to run at a lower dilution.

JC 9/19/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.2		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0116	0.0580	1	08/28/2017 16:28	WG1012951
Acrylonitrile	U		0.00208	0.0116	1	08/28/2017 16:28	WG1012951
Benzene	U		0.000313	0.00116	1	08/28/2017 16:28	WG1012951
Bromobenzene	U		0.000330	0.00116	1	08/28/2017 16:28	WG1012951
Bromodichloromethane	U		0.000295	0.00116	1	08/28/2017 16:28	WG1012951
Bromochloromethane	U		0.000453	0.00580	1	08/28/2017 16:28	WG1012951
Bromoform	U		0.000492	0.00116	1	08/28/2017 16:28	WG1012951
Bromomethane	U		0.00156	0.00580	1	08/28/2017 16:28	WG1012951
n-Butylbenzene	U		0.000299	0.00116	1	08/28/2017 16:28	WG1012951
sec-Butylbenzene	U		0.000233	0.00116	1	08/28/2017 16:28	WG1012951
tert-Butylbenzene	U		0.000239	0.00116	1	08/28/2017 16:28	WG1012951
Carbon disulfide	U		0.000257	0.00116	1	08/28/2017 16:28	WG1012951
Carbon tetrachloride	U		0.000381	0.00116	1	08/28/2017 16:28	WG1012951
Chlorobenzene	U		0.000246	0.00116	1	08/28/2017 16:28	WG1012951
Chlorodibromomethane	U		0.000433	0.00116	1	08/28/2017 16:28	WG1012951
Chloroethane	U		0.00110	0.00580	1	08/28/2017 16:28	WG1012951
Chloroform	U		0.000266	0.00580	1	08/28/2017 16:28	WG1012951
Chloromethane	U		0.000435	0.00290	1	08/28/2017 16:28	WG1012951
2-Chlorotoluene	U		0.000349	0.00116	1	08/28/2017 16:28	WG1012951
4-Chlorotoluene	U		0.000279	0.00116	1	08/28/2017 16:28	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00122	0.00580	1	08/28/2017 16:28	WG1012951
1,2-Dibromoethane	U		0.000398	0.00116	1	08/28/2017 16:28	WG1012951
Dibromomethane	U		0.000443	0.00116	1	08/28/2017 16:28	WG1012951
1,2-Dichlorobenzene	U		0.000354	0.00116	1	08/28/2017 16:28	WG1012951
1,3-Dichlorobenzene	U		0.000277	0.00116	1	08/28/2017 16:28	WG1012951
1,4-Dichlorobenzene	U		0.000262	0.00116	1	08/28/2017 16:28	WG1012951
Dichlorodifluoromethane	U		0.000828	0.00580	1	08/28/2017 16:28	WG1012951
1,1-Dichloroethane	U		0.000231	0.00116	1	08/28/2017 16:28	WG1012951
1,2-Dichloroethane	U		0.000308	0.00116	1	08/28/2017 16:28	WG1012951
1,1-Dichloroethene	U		0.000352	0.00116	1	08/28/2017 16:28	WG1012951
cis-1,2-Dichloroethene	U		0.000273	0.00116	1	08/28/2017 16:28	WG1012951
trans-1,2-Dichloroethene	U		0.000306	0.00116	1	08/28/2017 16:28	WG1012951
1,2-Dichloropropane	U		0.000416	0.00116	1	08/28/2017 16:28	WG1012951
1,1-Dichloropropene	U		0.000368	0.00116	1	08/28/2017 16:28	WG1012951
1,3-Dichloropropane	U		0.000240	0.00116	1	08/28/2017 16:28	WG1012951
cis-1,3-Dichloropropene	U		0.000304	0.00116	1	08/28/2017 16:28	WG1012951
trans-1,3-Dichloropropene	U		0.000310	0.00116	1	08/28/2017 16:28	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000903	0.00290	1	08/28/2017 16:28	WG1012951
2,2-Dichloropropane	U		0.000324	0.00116	1	08/28/2017 16:28	WG1012951
Di-isopropyl ether	U		0.000288	0.00116	1	08/28/2017 16:28	WG1012951
Ethylbenzene	U		0.000345	0.00116	1	08/28/2017 16:28	WG1012951
Hexachloro-1,3-butadiene	U		0.000397	0.00116	1	08/28/2017 16:28	WG1012951
2-Hexanone	U		0.00159	0.0116	1	08/28/2017 16:28	WG1012951
n-Hexane	U		0.000337	0.0116	1	08/28/2017 16:28	WG1012951
Iodomethane	U		0.00294	0.0116	1	08/28/2017 16:28	WG1012951
Isopropylbenzene	U		0.000282	0.00116	1	08/28/2017 16:28	WG1012951
p-Isopropyltoluene	U		0.000237	0.00116	1	08/28/2017 16:28	WG1012951
2-Butanone (MEK)	U		0.00543	0.0116	1	08/28/2017 16:28	WG1012951
Methylene Chloride	U		0.00116	0.00580	1	08/28/2017 16:28	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00218	0.0116	1	08/28/2017 16:28	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000246	0.00116	1	08/28/2017 16:28	WG1012951
Naphthalene	U		0.00116	0.00580	1	08/28/2017 16:28	WG1012951
n-Propylbenzene	U		0.000239	0.00116	1	08/28/2017 16:28	WG1012951
Styrene	U		0.000272	0.00116	1	08/28/2017 16:28	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000306	0.00116	1	08/28/2017 16:28	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000424	0.00116	1	08/28/2017 16:28	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000424	0.00116	1	08/28/2017 16:28	WG1012951
Tetrachloroethene	U		0.000320	0.00116	1	08/28/2017 16:28	WG1012951
Toluene	U		0.000504	0.00580	1	08/28/2017 16:28	WG1012951
1,2,3-Trichlorobenzene	U		0.000355	0.00116	1	08/28/2017 16:28	WG1012951
1,2,4-Trichlorobenzene	U		0.000450	0.00116	1	08/28/2017 16:28	WG1012951
1,1,1-Trichloroethane	U		0.000332	0.00116	1	08/28/2017 16:28	WG1012951
1,1,2-Trichloroethane	U		0.000322	0.00116	1	08/28/2017 16:28	WG1012951
Trichloroethene	U		0.000324	0.00116	1	08/28/2017 16:28	WG1012951
Trichlorofluoromethane	U		0.000443	0.00580	1	08/28/2017 16:28	WG1012951
1,2,3-Trichloropropane	U		0.000860	0.00290	1	08/28/2017 16:28	WG1012951
1,2,4-Trimethylbenzene	U		0.000245	0.00116	1	08/28/2017 16:28	WG1012951
1,2,3-Trimethylbenzene	U		0.000333	0.00116	1	08/28/2017 16:28	WG1012951
1,3,5-Trimethylbenzene	U		0.000309	0.00116	1	08/28/2017 16:28	WG1012951
Vinyl acetate	U		0.00277	0.0116	1	08/28/2017 16:28	WG1012951
Vinyl chloride	U		0.000338	0.00116	1	08/28/2017 16:28	WG1012951
Xylenes, Total	U		0.000810	0.00348	1	08/28/2017 16:28	WG1012951
(S) Toluene-d8	96.9			80.0-120		08/28/2017 16:28	WG1012951
(S) Dibromofluoromethane	108			74.0-131		08/28/2017 16:28	WG1012951
(S) 4-Bromofluorobenzene	99.5			64.0-132		08/28/2017 16:28	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/17



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.7		1	08/24/2017 10:10	WG1013068

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0110	0.0551	1	08/28/2017 16:54	WG1012951
Acrylonitrile	U		0.00197	0.0110	1	08/28/2017 16:54	WG1012951
Benzene	U		0.000298	0.00110	1	08/28/2017 16:54	WG1012951
Bromobenzene	U		0.000313	0.00110	1	08/28/2017 16:54	WG1012951
Bromodichloromethane	U		0.000280	0.00110	1	08/28/2017 16:54	WG1012951
Bromochloromethane	U		0.000430	0.00551	1	08/28/2017 16:54	WG1012951
Bromoform	U		0.000468	0.00110	1	08/28/2017 16:54	WG1012951
Bromomethane	U		0.00148	0.00551	1	08/28/2017 16:54	WG1012951
n-Butylbenzene	U		0.000285	0.00110	1	08/28/2017 16:54	WG1012951
sec-Butylbenzene	U		0.000222	0.00110	1	08/28/2017 16:54	WG1012951
tert-Butylbenzene	U		0.000227	0.00110	1	08/28/2017 16:54	WG1012951
Carbon disulfide	U		0.000244	0.00110	1	08/28/2017 16:54	WG1012951
Carbon tetrachloride	U		0.000362	0.00110	1	08/28/2017 16:54	WG1012951
Chlorobenzene	U		0.000234	0.00110	1	08/28/2017 16:54	WG1012951
Chlorodibromomethane	U		0.000411	0.00110	1	08/28/2017 16:54	WG1012951
Chloroethane	U		0.00104	0.00551	1	08/28/2017 16:54	WG1012951
Chloroform	U		0.000253	0.00551	1	08/28/2017 16:54	WG1012951
Chloromethane	U		0.000414	0.00276	1	08/28/2017 16:54	WG1012951
2-Chlorotoluene	U		0.000332	0.00110	1	08/28/2017 16:54	WG1012951
4-Chlorotoluene	U		0.000265	0.00110	1	08/28/2017 16:54	WG1012951
1,2-Dibromo-3-Chloropropane	U		0.00116	0.00551	1	08/28/2017 16:54	WG1012951
1,2-Dibromoethane	U		0.000378	0.00110	1	08/28/2017 16:54	WG1012951
Dibromomethane	U		0.000421	0.00110	1	08/28/2017 16:54	WG1012951
1,2-Dichlorobenzene	U		0.000336	0.00110	1	08/28/2017 16:54	WG1012951
1,3-Dichlorobenzene	U		0.000264	0.00110	1	08/28/2017 16:54	WG1012951
1,4-Dichlorobenzene	U		0.000249	0.00110	1	08/28/2017 16:54	WG1012951
Dichlorodifluoromethane	U		0.000786	0.00551	1	08/28/2017 16:54	WG1012951
1,1-Dichloroethane	U		0.000219	0.00110	1	08/28/2017 16:54	WG1012951
1,2-Dichloroethane	U		0.000292	0.00110	1	08/28/2017 16:54	WG1012951
1,1-Dichloroethene	U		0.000334	0.00110	1	08/28/2017 16:54	WG1012951
cis-1,2-Dichloroethene	U		0.000259	0.00110	1	08/28/2017 16:54	WG1012951
trans-1,2-Dichloroethene	U		0.000291	0.00110	1	08/28/2017 16:54	WG1012951
1,2-Dichloropropane	U		0.000395	0.00110	1	08/28/2017 16:54	WG1012951
1,1-Dichloropropene	U		0.000350	0.00110	1	08/28/2017 16:54	WG1012951
1,3-Dichloropropane	U		0.000228	0.00110	1	08/28/2017 16:54	WG1012951
cis-1,3-Dichloropropene	U		0.000289	0.00110	1	08/28/2017 16:54	WG1012951
trans-1,3-Dichloropropene	U		0.000294	0.00110	1	08/28/2017 16:54	WG1012951
trans-1,4-Dichloro-2-butene	U		0.000858	0.00276	1	08/28/2017 16:54	WG1012951
2,2-Dichloropropane	U		0.000308	0.00110	1	08/28/2017 16:54	WG1012951
Di-isopropyl ether	U		0.000273	0.00110	1	08/28/2017 16:54	WG1012951
Ethylbenzene	U		0.000328	0.00110	1	08/28/2017 16:54	WG1012951
Hexachloro-1,3-butadiene	U		0.000377	0.00110	1	08/28/2017 16:54	WG1012951
2-Hexanone	U		0.00151	0.0110	1	08/28/2017 16:54	WG1012951
n-Hexane	U		0.000320	0.0110	1	08/28/2017 16:54	WG1012951
Iodomethane	U		0.00279	0.0110	1	08/28/2017 16:54	WG1012951
Isopropylbenzene	U		0.000268	0.00110	1	08/28/2017 16:54	WG1012951
p-Isopropyltoluene	U		0.000225	0.00110	1	08/28/2017 16:54	WG1012951
2-Butanone (MEK)	U		0.00516	0.0110	1	08/28/2017 16:54	WG1012951
Methylene Chloride	U		0.00110	0.00551	1	08/28/2017 16:54	WG1012951
4-Methyl-2-pentanone (MIBK)	U		0.00207	0.0110	1	08/28/2017 16:54	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/17



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000234	0.00110	1	08/28/2017 16:54	WG1012951
Naphthalene	U		0.00110	0.00551	1	08/28/2017 16:54	WG1012951
n-Propylbenzene	U		0.000227	0.00110	1	08/28/2017 16:54	WG1012951
Styrene	U		0.000258	0.00110	1	08/28/2017 16:54	WG1012951
1,1,1,2-Tetrachloroethane	U		0.000291	0.00110	1	08/28/2017 16:54	WG1012951
1,1,2,2-Tetrachloroethane	U		0.000403	0.00110	1	08/28/2017 16:54	WG1012951
1,1,2-Trichlorotrifluoroethane	U		0.000403	0.00110	1	08/28/2017 16:54	WG1012951
Tetrachloroethene	0.00132		0.000304	0.00110	1	08/28/2017 16:54	WG1012951
Toluene	U		0.000479	0.00551	1	08/28/2017 16:54	WG1012951
1,2,3-Trichlorobenzene	U		0.000337	0.00110	1	08/28/2017 16:54	WG1012951
1,2,4-Trichlorobenzene	U		0.000428	0.00110	1	08/28/2017 16:54	WG1012951
1,1,1-Trichloroethane	U		0.000315	0.00110	1	08/28/2017 16:54	WG1012951
1,1,2-Trichloroethane	U		0.000305	0.00110	1	08/28/2017 16:54	WG1012951
Trichloroethene	0.000436	J	0.000308	0.00110	1	08/28/2017 16:54	WG1012951
Trichlorofluoromethane	U		0.000421	0.00551	1	08/28/2017 16:54	WG1012951
1,2,3-Trichloropropane	U		0.000817	0.00276	1	08/28/2017 16:54	WG1012951
1,2,4-Trimethylbenzene	U		0.000233	0.00110	1	08/28/2017 16:54	WG1012951
1,2,3-Trimethylbenzene	U		0.000316	0.00110	1	08/28/2017 16:54	WG1012951
1,3,5-Trimethylbenzene	U		0.000293	0.00110	1	08/28/2017 16:54	WG1012951
Vinyl acetate	U		0.00264	0.0110	1	08/28/2017 16:54	WG1012951
Vinyl chloride	U		0.000321	0.00110	1	08/28/2017 16:54	WG1012951
Xylenes, Total	U		0.000770	0.00331	1	08/28/2017 16:54	WG1012951
(S) Toluene-d8	95.6			80.0-120		08/28/2017 16:54	WG1012951
(S) Dibromofluoromethane	106			74.0-131		08/28/2017 16:54	WG1012951
(S) 4-Bromofluorobenzene	101			64.0-132		08/28/2017 16:54	WG1012951

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/17

August 30, 2017

PES Environmental, Inc.- WA

Sample Delivery Group: L931390
Samples Received: 08/23/2017
Project Number: 1413.001.02.602
Description: American Linen Project
Site: 1413.001.02.602
Report To: Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



B-211-120 L931390-01 Solid

Collected by Shannon McKernan
 Collected date/time 08/21/17 10:00
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013766	1	08/28/17 12:21	08/28/17 12:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/21/17 10:00	08/25/17 03:55	LRL

1 Cp

2 Tc

3 Ss

B-210-6 L931390-02 Solid

Collected by Shannon McKernan
 Collected date/time 08/21/17 15:15
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013766	1	08/28/17 12:21	08/28/17 12:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/21/17 15:15	08/25/17 04:15	LRL

4 Cn

5 Sr

6 Qc

B-210-15 L931390-03 Solid

Collected by Shannon McKernan
 Collected date/time 08/21/17 15:30
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013766	1	08/28/17 12:21	08/28/17 12:37	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	25	08/21/17 15:30	08/27/17 02:52	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	25	08/21/17 15:30	08/28/17 17:20	BMB

7 Gl

8 Al

9 Sc

B-210-20 L931390-04 Solid

Collected by Shannon McKernan
 Collected date/time 08/21/17 15:35
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013766	1	08/28/17 12:21	08/28/17 12:37	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	1	08/21/17 15:35	08/29/17 14:24	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/21/17 15:35	08/25/17 04:57	LRL

B-210-35 L931390-05 Solid

Collected by Shannon McKernan
 Collected date/time 08/21/17 16:05
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013768	1	08/28/17 16:20	08/28/17 16:45	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	1	08/21/17 16:05	08/27/17 03:14	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/21/17 16:05	08/25/17 05:17	LRL

B-210-46 L931390-06 Solid

Collected by Shannon McKernan
 Collected date/time 08/21/17 16:40
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013768	1	08/28/17 16:20	08/28/17 16:45	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	1	08/21/17 16:40	08/27/17 03:37	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/21/17 16:40	08/25/17 05:38	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	105	08/21/17 16:40	08/28/17 17:46	BMB

B-210-60 L931390-07 Solid

Collected by Shannon McKernan
 Collected date/time 08/22/17 07:45
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013768	1	08/28/17 16:20	08/28/17 16:45	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	25	08/22/17 07:45	08/27/17 07:04	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	25	08/22/17 07:45	08/28/17 18:12	BMB

SAMPLE SUMMARY



B-211-120-W L931390-08 GW

Collected by Shannon McKernan
 Collected date/time 08/21/17 11:00
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013145	1	08/27/17 16:52	08/27/17 16:52	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013682	1	08/25/17 12:48	08/25/17 12:48	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013682	50	08/30/17 02:27	08/30/17 02:27	ACG

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

TRIP BLANK-082217 L931390-09 GW

Collected by Shannon McKernan
 Collected date/time 08/21/17 00:00
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013682	1	08/25/17 12:08	08/25/17 12:08	JAH

B-210-70 L931390-10 Solid

Collected by Shannon McKernan
 Collected date/time 08/22/17 09:10
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013768	1	08/28/17 16:20	08/28/17 16:45	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	1	08/22/17 09:10	08/27/17 04:04	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/22/17 09:10	08/25/17 06:19	LRL

B-210-80 L931390-11 Solid

Collected by Shannon McKernan
 Collected date/time 08/22/17 11:00
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013768	1	08/28/17 16:20	08/28/17 16:45	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	1	08/22/17 11:00	08/27/17 04:52	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/22/17 11:00	08/25/17 06:40	LRL

B-900-20 L931390-12 Solid

Collected by Shannon McKernan
 Collected date/time 08/22/17 13:00
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013768	1	08/28/17 16:20	08/28/17 16:45	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	1	08/22/17 13:00	08/27/17 05:14	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/22/17 13:00	08/25/17 07:01	LRL

MW-132-20 L931390-13 Solid

Collected by Shannon McKernan
 Collected date/time 08/22/17 14:10
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013768	1	08/28/17 16:20	08/28/17 16:45	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	1	08/22/17 14:10	08/27/17 05:36	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/22/17 14:10	08/25/17 07:21	LRL

MW-132-35 L931390-14 Solid

Collected by Shannon McKernan
 Collected date/time 08/22/17 15:05
 Received date/time 08/23/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1013768	1	08/28/17 16:20	08/28/17 16:45	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1013897	1	08/22/17 15:05	08/27/17 05:58	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013442	1	08/22/17 15:05	08/25/17 07:42	LRL



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.1		1	08/28/2017 12:37	WG1013766

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0112	0.0561	1	08/25/2017 03:55	WG1013442
Acrylonitrile	U		0.00201	0.0112	1	08/25/2017 03:55	WG1013442
Benzene	U		0.000303	0.00112	1	08/25/2017 03:55	WG1013442
Bromobenzene	U		0.000319	0.00112	1	08/25/2017 03:55	WG1013442
Bromodichloromethane	U		0.000285	0.00112	1	08/25/2017 03:55	WG1013442
Bromochloromethane	U		0.000438	0.00561	1	08/25/2017 03:55	WG1013442
Bromoform	U		0.000476	0.00112	1	08/25/2017 03:55	WG1013442
Bromomethane	U	J3	0.00150	0.00561	1	08/25/2017 03:55	WG1013442
n-Butylbenzene	U		0.000289	0.00112	1	08/25/2017 03:55	WG1013442
sec-Butylbenzene	U		0.000226	0.00112	1	08/25/2017 03:55	WG1013442
tert-Butylbenzene	U		0.000231	0.00112	1	08/25/2017 03:55	WG1013442
Carbon disulfide	U	J3	0.000248	0.00112	1	08/25/2017 03:55	WG1013442
Carbon tetrachloride	U		0.000368	0.00112	1	08/25/2017 03:55	WG1013442
Chlorobenzene	U		0.000238	0.00112	1	08/25/2017 03:55	WG1013442
Chlorodibromomethane	U		0.000418	0.00112	1	08/25/2017 03:55	WG1013442
Chloroethane	U	J3	0.00106	0.00561	1	08/25/2017 03:55	WG1013442
Chloroform	U		0.000257	0.00561	1	08/25/2017 03:55	WG1013442
Chloromethane	U	J0 J3	0.000421	0.00280	1	08/25/2017 03:55	WG1013442
2-Chlorotoluene	U		0.000338	0.00112	1	08/25/2017 03:55	WG1013442
4-Chlorotoluene	U		0.000269	0.00112	1	08/25/2017 03:55	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00118	0.00561	1	08/25/2017 03:55	WG1013442
1,2-Dibromoethane	U		0.000385	0.00112	1	08/25/2017 03:55	WG1013442
Dibromomethane	U		0.000429	0.00112	1	08/25/2017 03:55	WG1013442
1,2-Dichlorobenzene	U		0.000342	0.00112	1	08/25/2017 03:55	WG1013442
1,3-Dichlorobenzene	U		0.000268	0.00112	1	08/25/2017 03:55	WG1013442
1,4-Dichlorobenzene	U		0.000254	0.00112	1	08/25/2017 03:55	WG1013442
Dichlorodifluoromethane	U	J0 J3 J4	0.000800	0.00561	1	08/25/2017 03:55	WG1013442
1,1-Dichloroethane	U		0.000223	0.00112	1	08/25/2017 03:55	WG1013442
1,2-Dichloroethane	U		0.000297	0.00112	1	08/25/2017 03:55	WG1013442
1,1-Dichloroethene	U		0.000340	0.00112	1	08/25/2017 03:55	WG1013442
cis-1,2-Dichloroethene	U		0.000264	0.00112	1	08/25/2017 03:55	WG1013442
trans-1,2-Dichloroethene	U		0.000296	0.00112	1	08/25/2017 03:55	WG1013442
1,2-Dichloropropane	U		0.000402	0.00112	1	08/25/2017 03:55	WG1013442
1,1-Dichloropropene	U		0.000356	0.00112	1	08/25/2017 03:55	WG1013442
1,3-Dichloropropane	U		0.000232	0.00112	1	08/25/2017 03:55	WG1013442
cis-1,3-Dichloropropene	U		0.000294	0.00112	1	08/25/2017 03:55	WG1013442
trans-1,3-Dichloropropene	U		0.000300	0.00112	1	08/25/2017 03:55	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000873	0.00280	1	08/25/2017 03:55	WG1013442
2,2-Dichloropropane	U		0.000313	0.00112	1	08/25/2017 03:55	WG1013442
Di-isopropyl ether	U		0.000278	0.00112	1	08/25/2017 03:55	WG1013442
Ethylbenzene	U		0.000333	0.00112	1	08/25/2017 03:55	WG1013442
Hexachloro-1,3-butadiene	U		0.000384	0.00112	1	08/25/2017 03:55	WG1013442
2-Hexanone	U		0.00154	0.0112	1	08/25/2017 03:55	WG1013442
n-Hexane	U	J3	0.000325	0.0112	1	08/25/2017 03:55	WG1013442
Iodomethane	U		0.00284	0.0112	1	08/25/2017 03:55	WG1013442
Isopropylbenzene	U		0.000273	0.00112	1	08/25/2017 03:55	WG1013442
p-Isopropyltoluene	U		0.000229	0.00112	1	08/25/2017 03:55	WG1013442
2-Butanone (MEK)	U		0.00525	0.0112	1	08/25/2017 03:55	WG1013442
Methylene Chloride	U		0.00112	0.00561	1	08/25/2017 03:55	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00211	0.0112	1	08/25/2017 03:55	WG1013442

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000238	0.00112	1	08/25/2017 03:55	WG1013442
Naphthalene	U		0.00112	0.00561	1	08/25/2017 03:55	WG1013442
n-Propylbenzene	U		0.000231	0.00112	1	08/25/2017 03:55	WG1013442
Styrene	U		0.000263	0.00112	1	08/25/2017 03:55	WG1013442
1,1,1-Tetrachloroethane	U		0.000296	0.00112	1	08/25/2017 03:55	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000409	0.00112	1	08/25/2017 03:55	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000409	0.00112	1	08/25/2017 03:55	WG1013442
Tetrachloroethene	0.000628	J	0.000310	0.00112	1	08/25/2017 03:55	WG1013442
Toluene	U		0.000487	0.00561	1	08/25/2017 03:55	WG1013442
1,2,3-Trichlorobenzene	U		0.000343	0.00112	1	08/25/2017 03:55	WG1013442
1,2,4-Trichlorobenzene	U		0.000435	0.00112	1	08/25/2017 03:55	WG1013442
1,1,1-Trichloroethane	U		0.000321	0.00112	1	08/25/2017 03:55	WG1013442
1,1,2-Trichloroethane	U		0.000311	0.00112	1	08/25/2017 03:55	WG1013442
Trichloroethene	0.000423	J	0.000313	0.00112	1	08/25/2017 03:55	WG1013442
Trichlorofluoromethane	U	J3	0.000429	0.00561	1	08/25/2017 03:55	WG1013442
1,2,3-Trichloropropane	U		0.000831	0.00280	1	08/25/2017 03:55	WG1013442
1,2,4-Trimethylbenzene	U		0.000237	0.00112	1	08/25/2017 03:55	WG1013442
1,2,3-Trimethylbenzene	U		0.000322	0.00112	1	08/25/2017 03:55	WG1013442
1,3,5-Trimethylbenzene	U		0.000298	0.00112	1	08/25/2017 03:55	WG1013442
Vinyl acetate	U		0.00268	0.0112	1	08/25/2017 03:55	WG1013442
Vinyl chloride	U	J3 J4	0.000326	0.00112	1	08/25/2017 03:55	WG1013442
Xylenes, Total	U		0.000783	0.00337	1	08/25/2017 03:55	WG1013442
(S) Toluene-d8	97.3			80.0-120		08/25/2017 03:55	WG1013442
(S) Dibromofluoromethane	101			74.0-131		08/25/2017 03:55	WG1013442
(S) 4-Bromofluorobenzene	96.7			64.0-132		08/25/2017 03:55	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.8		1	08/28/2017 12:37	WG1013766

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0351	<u>J</u>	0.0118	0.0589	1	08/25/2017 04:15	WG1013442
Acrylonitrile	U		0.00211	0.0118	1	08/25/2017 04:15	WG1013442
Benzene	U		0.000318	0.00118	1	08/25/2017 04:15	WG1013442
Bromobenzene	U		0.000335	0.00118	1	08/25/2017 04:15	WG1013442
Bromodichloromethane	U		0.000299	0.00118	1	08/25/2017 04:15	WG1013442
Bromochloromethane	U		0.000460	0.00589	1	08/25/2017 04:15	WG1013442
Bromoform	U		0.000500	0.00118	1	08/25/2017 04:15	WG1013442
Bromomethane	U	<u>J3</u>	0.00158	0.00589	1	08/25/2017 04:15	WG1013442
n-Butylbenzene	U		0.000304	0.00118	1	08/25/2017 04:15	WG1013442
sec-Butylbenzene	U		0.000237	0.00118	1	08/25/2017 04:15	WG1013442
tert-Butylbenzene	U		0.000243	0.00118	1	08/25/2017 04:15	WG1013442
Carbon disulfide	0.000327	<u>J J3</u>	0.000261	0.00118	1	08/25/2017 04:15	WG1013442
Carbon tetrachloride	U		0.000387	0.00118	1	08/25/2017 04:15	WG1013442
Chlorobenzene	U		0.000250	0.00118	1	08/25/2017 04:15	WG1013442
Chlorodibromomethane	U		0.000440	0.00118	1	08/25/2017 04:15	WG1013442
Chloroethane	U	<u>J3</u>	0.00112	0.00589	1	08/25/2017 04:15	WG1013442
Chloroform	U		0.000270	0.00589	1	08/25/2017 04:15	WG1013442
Chloromethane	U	<u>JO J3</u>	0.000442	0.00295	1	08/25/2017 04:15	WG1013442
2-Chlorotoluene	U		0.000355	0.00118	1	08/25/2017 04:15	WG1013442
4-Chlorotoluene	U		0.000283	0.00118	1	08/25/2017 04:15	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00124	0.00589	1	08/25/2017 04:15	WG1013442
1,2-Dibromoethane	U		0.000404	0.00118	1	08/25/2017 04:15	WG1013442
Dibromomethane	U		0.000450	0.00118	1	08/25/2017 04:15	WG1013442
1,2-Dichlorobenzene	U		0.000360	0.00118	1	08/25/2017 04:15	WG1013442
1,3-Dichlorobenzene	U		0.000282	0.00118	1	08/25/2017 04:15	WG1013442
1,4-Dichlorobenzene	U		0.000266	0.00118	1	08/25/2017 04:15	WG1013442
Dichlorodifluoromethane	U	<u>JO J3 J4</u>	0.000841	0.00589	1	08/25/2017 04:15	WG1013442
1,1-Dichloroethane	U		0.000235	0.00118	1	08/25/2017 04:15	WG1013442
1,2-Dichloroethane	U		0.000312	0.00118	1	08/25/2017 04:15	WG1013442
1,1-Dichloroethene	U		0.000357	0.00118	1	08/25/2017 04:15	WG1013442
cis-1,2-Dichloroethene	0.000287	<u>J</u>	0.000277	0.00118	1	08/25/2017 04:15	WG1013442
trans-1,2-Dichloroethene	U		0.000311	0.00118	1	08/25/2017 04:15	WG1013442
1,2-Dichloropropane	U		0.000422	0.00118	1	08/25/2017 04:15	WG1013442
1,1-Dichloropropene	U		0.000374	0.00118	1	08/25/2017 04:15	WG1013442
1,3-Dichloropropane	U		0.000244	0.00118	1	08/25/2017 04:15	WG1013442
cis-1,3-Dichloropropene	U		0.000309	0.00118	1	08/25/2017 04:15	WG1013442
trans-1,3-Dichloropropene	U		0.000315	0.00118	1	08/25/2017 04:15	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000917	0.00295	1	08/25/2017 04:15	WG1013442
2,2-Dichloropropane	U		0.000329	0.00118	1	08/25/2017 04:15	WG1013442
Di-isopropyl ether	U		0.000292	0.00118	1	08/25/2017 04:15	WG1013442
Ethylbenzene	U		0.000350	0.00118	1	08/25/2017 04:15	WG1013442
Hexachloro-1,3-butadiene	U		0.000403	0.00118	1	08/25/2017 04:15	WG1013442
2-Hexanone	U		0.00162	0.0118	1	08/25/2017 04:15	WG1013442
n-Hexane	U	<u>J3</u>	0.000342	0.0118	1	08/25/2017 04:15	WG1013442
Iodomethane	U		0.00298	0.0118	1	08/25/2017 04:15	WG1013442
Isopropylbenzene	U		0.000286	0.00118	1	08/25/2017 04:15	WG1013442
p-Isopropyltoluene	U		0.000241	0.00118	1	08/25/2017 04:15	WG1013442
2-Butanone (MEK)	U		0.00552	0.0118	1	08/25/2017 04:15	WG1013442
Methylene Chloride	U		0.00118	0.00589	1	08/25/2017 04:15	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00222	0.0118	1	08/25/2017 04:15	WG1013442

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000250	0.00118	1	08/25/2017 04:15	WG1013442
Naphthalene	U		0.00118	0.00589	1	08/25/2017 04:15	WG1013442
n-Propylbenzene	U		0.000243	0.00118	1	08/25/2017 04:15	WG1013442
Styrene	U		0.000276	0.00118	1	08/25/2017 04:15	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000311	0.00118	1	08/25/2017 04:15	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000430	0.00118	1	08/25/2017 04:15	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000430	0.00118	1	08/25/2017 04:15	WG1013442
Tetrachloroethene	0.0313		0.000325	0.00118	1	08/25/2017 04:15	WG1013442
Toluene	U		0.000512	0.00589	1	08/25/2017 04:15	WG1013442
1,2,3-Trichlorobenzene	U		0.000361	0.00118	1	08/25/2017 04:15	WG1013442
1,2,4-Trichlorobenzene	U		0.000457	0.00118	1	08/25/2017 04:15	WG1013442
1,1,1-Trichloroethane	U		0.000337	0.00118	1	08/25/2017 04:15	WG1013442
1,1,2-Trichloroethane	U		0.000327	0.00118	1	08/25/2017 04:15	WG1013442
Trichloroethene	0.00234		0.000329	0.00118	1	08/25/2017 04:15	WG1013442
Trichlorofluoromethane	U	<u>J3</u>	0.000450	0.00589	1	08/25/2017 04:15	WG1013442
1,2,3-Trichloropropane	U		0.000874	0.00295	1	08/25/2017 04:15	WG1013442
1,2,4-Trimethylbenzene	U		0.000249	0.00118	1	08/25/2017 04:15	WG1013442
1,2,3-Trimethylbenzene	U		0.000338	0.00118	1	08/25/2017 04:15	WG1013442
1,3,5-Trimethylbenzene	U		0.000314	0.00118	1	08/25/2017 04:15	WG1013442
Vinyl acetate	U		0.00282	0.0118	1	08/25/2017 04:15	WG1013442
Vinyl chloride	U	<u>J3 J4</u>	0.000343	0.00118	1	08/25/2017 04:15	WG1013442
Xylenes, Total	U		0.000823	0.00354	1	08/25/2017 04:15	WG1013442
(S) Toluene-d8	97.2			80.0-120		08/25/2017 04:15	WG1013442
(S) Dibromofluoromethane	101			74.0-131		08/25/2017 04:15	WG1013442
(S) 4-Bromofluorobenzene	94.4			64.0-132		08/25/2017 04:15	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.3		1	08/28/2017 12:37	WG1013766

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.919	2.71	25	08/27/2017 02:52	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	99.3			77.0-120		08/27/2017 02:52	WG1013897

3 Ss

4 Cn

Sample Narrative:

L931390-03 WG1013897: Elevated RL. Reported from MEOH vial. Bisulfates used in previous runs.

5 Sr

6 Qc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.271	1.35	25	08/28/2017 17:20	WG1013442
Acrylonitrile	U		0.0485	0.271	25	08/28/2017 17:20	WG1013442
Benzene	U		0.00731	0.0271	25	08/28/2017 17:20	WG1013442
Bromobenzene	U		0.00769	0.0271	25	08/28/2017 17:20	WG1013442
Bromodichloromethane	U		0.00688	0.0271	25	08/28/2017 17:20	WG1013442
Bromochloromethane	U		0.0106	0.135	25	08/28/2017 17:20	WG1013442
Bromoform	U		0.0115	0.0271	25	08/28/2017 17:20	WG1013442
Bromomethane	U	J3	0.0363	0.135	25	08/28/2017 17:20	WG1013442
n-Butylbenzene	U		0.00699	0.0271	25	08/28/2017 17:20	WG1013442
sec-Butylbenzene	U		0.00544	0.0271	25	08/28/2017 17:20	WG1013442
tert-Butylbenzene	U		0.00558	0.0271	25	08/28/2017 17:20	WG1013442
Carbon disulfide	U	J3	0.00598	0.0271	25	08/28/2017 17:20	WG1013442
Carbon tetrachloride	U		0.00889	0.0271	25	08/28/2017 17:20	WG1013442
Chlorobenzene	U		0.00574	0.0271	25	08/28/2017 17:20	WG1013442
Chlorodibromomethane	U		0.0101	0.0271	25	08/28/2017 17:20	WG1013442
Chloroethane	U	J3	0.0256	0.135	25	08/28/2017 17:20	WG1013442
Chloroform	U		0.00620	0.135	25	08/28/2017 17:20	WG1013442
Chloromethane	U	J3	0.0102	0.0677	25	08/28/2017 17:20	WG1013442
2-Chlorotoluene	U		0.00815	0.0271	25	08/28/2017 17:20	WG1013442
4-Chlorotoluene	U		0.00650	0.0271	25	08/28/2017 17:20	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.0284	0.135	25	08/28/2017 17:20	WG1013442
1,2-Dibromoethane	U		0.00930	0.0271	25	08/28/2017 17:20	WG1013442
Dibromomethane	U		0.0103	0.0271	25	08/28/2017 17:20	WG1013442
1,2-Dichlorobenzene	U		0.00826	0.0271	25	08/28/2017 17:20	WG1013442
1,3-Dichlorobenzene	U		0.00648	0.0271	25	08/28/2017 17:20	WG1013442
1,4-Dichlorobenzene	U		0.00612	0.0271	25	08/28/2017 17:20	WG1013442
Dichlorodifluoromethane	U	J3 J4	0.0193	0.135	25	08/28/2017 17:20	WG1013442
1,1-Dichloroethane	U		0.00540	0.0271	25	08/28/2017 17:20	WG1013442
1,2-Dichloroethane	U		0.00717	0.0271	25	08/28/2017 17:20	WG1013442
1,1-Dichloroethene	U		0.00821	0.0271	25	08/28/2017 17:20	WG1013442
cis-1,2-Dichloroethene	U		0.00637	0.0271	25	08/28/2017 17:20	WG1013442
trans-1,2-Dichloroethene	U		0.00715	0.0271	25	08/28/2017 17:20	WG1013442
1,2-Dichloropropane	U		0.00970	0.0271	25	08/28/2017 17:20	WG1013442
1,1-Dichloropropene	U		0.00858	0.0271	25	08/28/2017 17:20	WG1013442
1,3-Dichloropropane	U		0.00561	0.0271	25	08/28/2017 17:20	WG1013442
cis-1,3-Dichloropropene	U		0.00710	0.0271	25	08/28/2017 17:20	WG1013442
trans-1,3-Dichloropropene	U		0.00724	0.0271	25	08/28/2017 17:20	WG1013442
trans-1,4-Dichloro-2-butene	U		0.0210	0.0677	25	08/28/2017 17:20	WG1013442
2,2-Dichloropropane	U		0.00756	0.0271	25	08/28/2017 17:20	WG1013442
Di-isopropyl ether	U		0.00672	0.0271	25	08/28/2017 17:20	WG1013442
Ethylbenzene	U		0.00804	0.0271	25	08/28/2017 17:20	WG1013442

7 Gl

8 Al

9 Sc



Collected date/time: 08/21/17 15:30

L931390

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.00927	0.0271	25	08/28/2017 17:20	WG1013442
2-Hexanone	U		0.0371	0.271	25	08/28/2017 17:20	WG1013442
n-Hexane	U	J3	0.00786	0.271	25	08/28/2017 17:20	WG1013442
Iodomethane	U		0.0685	0.271	25	08/28/2017 17:20	WG1013442
Isopropylbenzene	U		0.00659	0.0271	25	08/28/2017 17:20	WG1013442
p-Isopropyltoluene	U		0.00553	0.0271	25	08/28/2017 17:20	WG1013442
2-Butanone (MEK)	U		0.127	0.271	25	08/28/2017 17:20	WG1013442
Methylene Chloride	U		0.0271	0.135	25	08/28/2017 17:20	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.0509	0.271	25	08/28/2017 17:20	WG1013442
Methyl tert-butyl ether	0.0523		0.00574	0.0271	25	08/28/2017 17:20	WG1013442
Naphthalene	U		0.0271	0.135	25	08/28/2017 17:20	WG1013442
n-Propylbenzene	U		0.00558	0.0271	25	08/28/2017 17:20	WG1013442
Styrene	U		0.00634	0.0271	25	08/28/2017 17:20	WG1013442
1,1,1,2-Tetrachloroethane	U		0.00715	0.0271	25	08/28/2017 17:20	WG1013442
1,1,2,2-Tetrachloroethane	U		0.00988	0.0271	25	08/28/2017 17:20	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.00988	0.0271	25	08/28/2017 17:20	WG1013442
Tetrachloroethene	0.0730		0.00748	0.0271	25	08/28/2017 17:20	WG1013442
Toluene	U		0.0117	0.135	25	08/28/2017 17:20	WG1013442
1,2,3-Trichlorobenzene	U		0.00829	0.0271	25	08/28/2017 17:20	WG1013442
1,2,4-Trichlorobenzene	U		0.0105	0.0271	25	08/28/2017 17:20	WG1013442
1,1,1-Trichloroethane	U		0.00775	0.0271	25	08/28/2017 17:20	WG1013442
1,1,2-Trichloroethane	U		0.00750	0.0271	25	08/28/2017 17:20	WG1013442
Trichloroethene	0.0647		0.00756	0.0271	25	08/28/2017 17:20	WG1013442
Trichlorofluoromethane	U	J3	0.0103	0.135	25	08/28/2017 17:20	WG1013442
1,2,3-Trichloropropane	U		0.0200	0.0677	25	08/28/2017 17:20	WG1013442
1,2,4-Trimethylbenzene	U		0.00572	0.0271	25	08/28/2017 17:20	WG1013442
1,2,3-Trimethylbenzene	U		0.00778	0.0271	25	08/28/2017 17:20	WG1013442
1,3,5-Trimethylbenzene	U		0.00721	0.0271	25	08/28/2017 17:20	WG1013442
Vinyl acetate	U		0.0648	0.271	25	08/28/2017 17:20	WG1013442
Vinyl chloride	U	J3 J4	0.00789	0.0271	25	08/28/2017 17:20	WG1013442
Xylenes, Total	U		0.0189	0.0813	25	08/28/2017 17:20	WG1013442
(S) Toluene-d8	107			80.0-120		08/28/2017 17:20	WG1013442
(S) Dibromofluoromethane	97.9			74.0-131		08/28/2017 17:20	WG1013442
(S) 4-Bromofluorobenzene	97.0			64.0-132		08/28/2017 17:20	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L931390-03 WG1013442: No stir bars remain for analysis.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.8		1	08/28/2017 12:37	WG1013766

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0378	0.111	1	08/29/2017 14:24	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	94.0			77.0-120		08/29/2017 14:24	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0111	0.0557	1	08/25/2017 04:57	WG1013442
Acrylonitrile	U		0.00199	0.0111	1	08/25/2017 04:57	WG1013442
Benzene	U		0.000301	0.00111	1	08/25/2017 04:57	WG1013442
Bromobenzene	U		0.000316	0.00111	1	08/25/2017 04:57	WG1013442
Bromodichloromethane	U		0.000283	0.00111	1	08/25/2017 04:57	WG1013442
Bromochloromethane	U		0.000434	0.00557	1	08/25/2017 04:57	WG1013442
Bromoform	U		0.000472	0.00111	1	08/25/2017 04:57	WG1013442
Bromomethane	U	J3	0.00149	0.00557	1	08/25/2017 04:57	WG1013442
n-Butylbenzene	U		0.000287	0.00111	1	08/25/2017 04:57	WG1013442
sec-Butylbenzene	U		0.000224	0.00111	1	08/25/2017 04:57	WG1013442
tert-Butylbenzene	U		0.000229	0.00111	1	08/25/2017 04:57	WG1013442
Carbon disulfide	U	J3	0.000246	0.00111	1	08/25/2017 04:57	WG1013442
Carbon tetrachloride	U		0.000365	0.00111	1	08/25/2017 04:57	WG1013442
Chlorobenzene	U		0.000236	0.00111	1	08/25/2017 04:57	WG1013442
Chlorodibromomethane	U		0.000416	0.00111	1	08/25/2017 04:57	WG1013442
Chloroethane	U	J3	0.00105	0.00557	1	08/25/2017 04:57	WG1013442
Chloroform	U		0.000255	0.00557	1	08/25/2017 04:57	WG1013442
Chloromethane	U	JO J3	0.000418	0.00279	1	08/25/2017 04:57	WG1013442
2-Chlorotoluene	U		0.000335	0.00111	1	08/25/2017 04:57	WG1013442
4-Chlorotoluene	U		0.000267	0.00111	1	08/25/2017 04:57	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00557	1	08/25/2017 04:57	WG1013442
1,2-Dibromoethane	U		0.000382	0.00111	1	08/25/2017 04:57	WG1013442
Dibromomethane	U		0.000426	0.00111	1	08/25/2017 04:57	WG1013442
1,2-Dichlorobenzene	U		0.000340	0.00111	1	08/25/2017 04:57	WG1013442
1,3-Dichlorobenzene	U		0.000266	0.00111	1	08/25/2017 04:57	WG1013442
1,4-Dichlorobenzene	U		0.000252	0.00111	1	08/25/2017 04:57	WG1013442
Dichlorodifluoromethane	U	JO J3 J4	0.000794	0.00557	1	08/25/2017 04:57	WG1013442
1,1-Dichloroethane	U		0.000222	0.00111	1	08/25/2017 04:57	WG1013442
1,2-Dichloroethane	U		0.000295	0.00111	1	08/25/2017 04:57	WG1013442
1,1-Dichloroethene	U		0.000338	0.00111	1	08/25/2017 04:57	WG1013442
cis-1,2-Dichloroethene	0.00185		0.000262	0.00111	1	08/25/2017 04:57	WG1013442
trans-1,2-Dichloroethene	U		0.000294	0.00111	1	08/25/2017 04:57	WG1013442
1,2-Dichloropropane	U		0.000399	0.00111	1	08/25/2017 04:57	WG1013442
1,1-Dichloropropene	U		0.000353	0.00111	1	08/25/2017 04:57	WG1013442
1,3-Dichloropropane	U		0.000231	0.00111	1	08/25/2017 04:57	WG1013442
cis-1,3-Dichloropropene	U		0.000292	0.00111	1	08/25/2017 04:57	WG1013442
trans-1,3-Dichloropropene	U		0.000297	0.00111	1	08/25/2017 04:57	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000867	0.00279	1	08/25/2017 04:57	WG1013442
2,2-Dichloropropane	U		0.000311	0.00111	1	08/25/2017 04:57	WG1013442
Di-isopropyl ether	U		0.000276	0.00111	1	08/25/2017 04:57	WG1013442
Ethylbenzene	U		0.000331	0.00111	1	08/25/2017 04:57	WG1013442
Hexachloro-1,3-butadiene	U		0.000381	0.00111	1	08/25/2017 04:57	WG1013442
2-Hexanone	U		0.00153	0.0111	1	08/25/2017 04:57	WG1013442
n-Hexane	U	J3	0.000323	0.0111	1	08/25/2017 04:57	WG1013442

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00282	0.0111	1	08/25/2017 04:57	WG1013442
Isopropylbenzene	U		0.000271	0.00111	1	08/25/2017 04:57	WG1013442
p-Isopropyltoluene	U		0.000227	0.00111	1	08/25/2017 04:57	WG1013442
2-Butanone (MEK)	U		0.00521	0.0111	1	08/25/2017 04:57	WG1013442
Methylene Chloride	U		0.00111	0.00557	1	08/25/2017 04:57	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00209	0.0111	1	08/25/2017 04:57	WG1013442
Methyl tert-butyl ether	U		0.000236	0.00111	1	08/25/2017 04:57	WG1013442
Naphthalene	U		0.00111	0.00557	1	08/25/2017 04:57	WG1013442
n-Propylbenzene	U		0.000229	0.00111	1	08/25/2017 04:57	WG1013442
Styrene	U		0.000261	0.00111	1	08/25/2017 04:57	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000294	0.00111	1	08/25/2017 04:57	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000407	0.00111	1	08/25/2017 04:57	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000407	0.00111	1	08/25/2017 04:57	WG1013442
Tetrachloroethene	U		0.000307	0.00111	1	08/25/2017 04:57	WG1013442
Toluene	U		0.000484	0.00557	1	08/25/2017 04:57	WG1013442
1,2,3-Trichlorobenzene	U		0.000341	0.00111	1	08/25/2017 04:57	WG1013442
1,2,4-Trichlorobenzene	U		0.000432	0.00111	1	08/25/2017 04:57	WG1013442
1,1,1-Trichloroethane	U		0.000319	0.00111	1	08/25/2017 04:57	WG1013442
1,1,2-Trichloroethane	U		0.000309	0.00111	1	08/25/2017 04:57	WG1013442
Trichloroethene	U		0.000311	0.00111	1	08/25/2017 04:57	WG1013442
Trichlorofluoromethane	U	J3	0.000426	0.00557	1	08/25/2017 04:57	WG1013442
1,2,3-Trichloropropane	U		0.000826	0.00279	1	08/25/2017 04:57	WG1013442
1,2,4-Trimethylbenzene	U		0.000235	0.00111	1	08/25/2017 04:57	WG1013442
1,2,3-Trimethylbenzene	U		0.000320	0.00111	1	08/25/2017 04:57	WG1013442
1,3,5-Trimethylbenzene	U		0.000296	0.00111	1	08/25/2017 04:57	WG1013442
Vinyl acetate	U		0.00266	0.0111	1	08/25/2017 04:57	WG1013442
Vinyl chloride	0.000499	J J3 J4	0.000324	0.00111	1	08/25/2017 04:57	WG1013442
Xylenes, Total	U		0.000778	0.00334	1	08/25/2017 04:57	WG1013442
(S) Toluene-d8	98.0			80.0-120		08/25/2017 04:57	WG1013442
(S) Dibromofluoromethane	104			74.0-131		08/25/2017 04:57	WG1013442
(S) 4-Bromofluorobenzene	93.0			64.0-132		08/25/2017 04:57	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.6	<u>J3</u>	1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0391	0.115	1	08/27/2017 03:14	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.2			77.0-120		08/27/2017 03:14	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0115	0.0577	1	08/25/2017 05:17	WG1013442
Acrylonitrile	U		0.00207	0.0115	1	08/25/2017 05:17	WG1013442
Benzene	U		0.000312	0.00115	1	08/25/2017 05:17	WG1013442
Bromobenzene	U		0.000328	0.00115	1	08/25/2017 05:17	WG1013442
Bromodichloromethane	U		0.000293	0.00115	1	08/25/2017 05:17	WG1013442
Bromochloromethane	U		0.000450	0.00577	1	08/25/2017 05:17	WG1013442
Bromoform	U		0.000489	0.00115	1	08/25/2017 05:17	WG1013442
Bromomethane	U	<u>J3</u>	0.00155	0.00577	1	08/25/2017 05:17	WG1013442
n-Butylbenzene	U		0.000298	0.00115	1	08/25/2017 05:17	WG1013442
sec-Butylbenzene	U		0.000232	0.00115	1	08/25/2017 05:17	WG1013442
tert-Butylbenzene	U		0.000238	0.00115	1	08/25/2017 05:17	WG1013442
Carbon disulfide	0.000783	<u>J J3</u>	0.000255	0.00115	1	08/25/2017 05:17	WG1013442
Carbon tetrachloride	U		0.000379	0.00115	1	08/25/2017 05:17	WG1013442
Chlorobenzene	U		0.000245	0.00115	1	08/25/2017 05:17	WG1013442
Chlorodibromomethane	U		0.000430	0.00115	1	08/25/2017 05:17	WG1013442
Chloroethane	U	<u>J3</u>	0.00109	0.00577	1	08/25/2017 05:17	WG1013442
Chloroform	U		0.000264	0.00577	1	08/25/2017 05:17	WG1013442
Chloromethane	U	<u>JO J3</u>	0.000433	0.00289	1	08/25/2017 05:17	WG1013442
2-Chlorotoluene	U		0.000347	0.00115	1	08/25/2017 05:17	WG1013442
4-Chlorotoluene	U		0.000277	0.00115	1	08/25/2017 05:17	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00121	0.00577	1	08/25/2017 05:17	WG1013442
1,2-Dibromoethane	U		0.000396	0.00115	1	08/25/2017 05:17	WG1013442
Dibromomethane	U		0.000441	0.00115	1	08/25/2017 05:17	WG1013442
1,2-Dichlorobenzene	U		0.000352	0.00115	1	08/25/2017 05:17	WG1013442
1,3-Dichlorobenzene	U		0.000276	0.00115	1	08/25/2017 05:17	WG1013442
1,4-Dichlorobenzene	U		0.000261	0.00115	1	08/25/2017 05:17	WG1013442
Dichlorodifluoromethane	U	<u>JO J3 J4</u>	0.000823	0.00577	1	08/25/2017 05:17	WG1013442
1,1-Dichloroethane	U		0.000230	0.00115	1	08/25/2017 05:17	WG1013442
1,2-Dichloroethane	U		0.000306	0.00115	1	08/25/2017 05:17	WG1013442
1,1-Dichloroethene	U		0.000350	0.00115	1	08/25/2017 05:17	WG1013442
cis-1,2-Dichloroethene	0.00950		0.000271	0.00115	1	08/25/2017 05:17	WG1013442
trans-1,2-Dichloroethene	U		0.000305	0.00115	1	08/25/2017 05:17	WG1013442
1,2-Dichloropropane	U		0.000413	0.00115	1	08/25/2017 05:17	WG1013442
1,1-Dichloropropene	U		0.000366	0.00115	1	08/25/2017 05:17	WG1013442
1,3-Dichloropropane	U		0.000239	0.00115	1	08/25/2017 05:17	WG1013442
cis-1,3-Dichloropropene	U		0.000302	0.00115	1	08/25/2017 05:17	WG1013442
trans-1,3-Dichloropropene	U		0.000308	0.00115	1	08/25/2017 05:17	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000898	0.00289	1	08/25/2017 05:17	WG1013442
2,2-Dichloropropane	U		0.000322	0.00115	1	08/25/2017 05:17	WG1013442
Di-isopropyl ether	U		0.000286	0.00115	1	08/25/2017 05:17	WG1013442
Ethylbenzene	U		0.000343	0.00115	1	08/25/2017 05:17	WG1013442
Hexachloro-1,3-butadiene	U		0.000395	0.00115	1	08/25/2017 05:17	WG1013442
2-Hexanone	U		0.00158	0.0115	1	08/25/2017 05:17	WG1013442
n-Hexane	U	<u>J3</u>	0.000335	0.0115	1	08/25/2017 05:17	WG1013442

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00292	0.0115	1	08/25/2017 05:17	WG1013442
Isopropylbenzene	U		0.000280	0.00115	1	08/25/2017 05:17	WG1013442
p-Isopropyltoluene	U		0.000235	0.00115	1	08/25/2017 05:17	WG1013442
2-Butanone (MEK)	U		0.00540	0.0115	1	08/25/2017 05:17	WG1013442
Methylene Chloride	U		0.00115	0.00577	1	08/25/2017 05:17	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00217	0.0115	1	08/25/2017 05:17	WG1013442
Methyl tert-butyl ether	U		0.000245	0.00115	1	08/25/2017 05:17	WG1013442
Naphthalene	U		0.00115	0.00577	1	08/25/2017 05:17	WG1013442
n-Propylbenzene	U		0.000238	0.00115	1	08/25/2017 05:17	WG1013442
Styrene	U		0.000270	0.00115	1	08/25/2017 05:17	WG1013442
1,1,1-Tetrachloroethane	U		0.000305	0.00115	1	08/25/2017 05:17	WG1013442
1,1,2-Tetrachloroethane	U		0.000421	0.00115	1	08/25/2017 05:17	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000421	0.00115	1	08/25/2017 05:17	WG1013442
Tetrachloroethene	0.00789		0.000319	0.00115	1	08/25/2017 05:17	WG1013442
Toluene	U		0.000501	0.00577	1	08/25/2017 05:17	WG1013442
1,2,3-Trichlorobenzene	U		0.000353	0.00115	1	08/25/2017 05:17	WG1013442
1,2,4-Trichlorobenzene	U		0.000448	0.00115	1	08/25/2017 05:17	WG1013442
1,1,1-Trichloroethane	U		0.000330	0.00115	1	08/25/2017 05:17	WG1013442
1,1,2-Trichloroethane	U		0.000320	0.00115	1	08/25/2017 05:17	WG1013442
Trichloroethene	0.00300		0.000322	0.00115	1	08/25/2017 05:17	WG1013442
Trichlorofluoromethane	U	J3	0.000441	0.00577	1	08/25/2017 05:17	WG1013442
1,2,3-Trichloropropane	U		0.000855	0.00289	1	08/25/2017 05:17	WG1013442
1,2,4-Trimethylbenzene	U		0.000244	0.00115	1	08/25/2017 05:17	WG1013442
1,2,3-Trimethylbenzene	U		0.000331	0.00115	1	08/25/2017 05:17	WG1013442
1,3,5-Trimethylbenzene	U		0.000307	0.00115	1	08/25/2017 05:17	WG1013442
Vinyl acetate	U		0.00276	0.0115	1	08/25/2017 05:17	WG1013442
Vinyl chloride	U	J3 J4	0.000336	0.00115	1	08/25/2017 05:17	WG1013442
Xylenes, Total	U		0.000806	0.00346	1	08/25/2017 05:17	WG1013442
(S) Toluene-d8	98.2			80.0-120		08/25/2017 05:17	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 05:17	WG1013442
(S) 4-Bromofluorobenzene	95.6			64.0-132		08/25/2017 05:17	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.8		1	08/28/2017 16:45	WG1013768

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.164		0.0369	0.109	1	08/27/2017 03:37	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.5			77.0-120		08/27/2017 03:37	WG1013897

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0109	0.0545	1	08/25/2017 05:38	WG1013442
Acrylonitrile	U		0.00195	0.0109	1	08/25/2017 05:38	WG1013442
Benzene	U		0.000294	0.00109	1	08/25/2017 05:38	WG1013442
Bromobenzene	U		0.000309	0.00109	1	08/25/2017 05:38	WG1013442
Bromodichloromethane	U		0.000277	0.00109	1	08/25/2017 05:38	WG1013442
Bromochloromethane	U		0.000425	0.00545	1	08/25/2017 05:38	WG1013442
Bromoform	U		0.000462	0.00109	1	08/25/2017 05:38	WG1013442
Bromomethane	U	J3	0.00146	0.00545	1	08/25/2017 05:38	WG1013442
n-Butylbenzene	U		0.000281	0.00109	1	08/25/2017 05:38	WG1013442
sec-Butylbenzene	U		0.000219	0.00109	1	08/25/2017 05:38	WG1013442
tert-Butylbenzene	U		0.000224	0.00109	1	08/25/2017 05:38	WG1013442
Carbon disulfide	0.000271	J J3	0.000241	0.00109	1	08/25/2017 05:38	WG1013442
Carbon tetrachloride	U		0.000357	0.00109	1	08/25/2017 05:38	WG1013442
Chlorobenzene	U		0.000231	0.00109	1	08/25/2017 05:38	WG1013442
Chlorodibromomethane	U		0.000406	0.00109	1	08/25/2017 05:38	WG1013442
Chloroethane	U	J3	0.00103	0.00545	1	08/25/2017 05:38	WG1013442
Chloroform	U		0.000250	0.00545	1	08/25/2017 05:38	WG1013442
Chloromethane	U	JO J3	0.000409	0.00272	1	08/25/2017 05:38	WG1013442
2-Chlorotoluene	U		0.000328	0.00109	1	08/25/2017 05:38	WG1013442
4-Chlorotoluene	U		0.000261	0.00109	1	08/25/2017 05:38	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00545	1	08/25/2017 05:38	WG1013442
1,2-Dibromoethane	U		0.000374	0.00109	1	08/25/2017 05:38	WG1013442
Dibromomethane	U		0.000416	0.00109	1	08/25/2017 05:38	WG1013442
1,2-Dichlorobenzene	U		0.000332	0.00109	1	08/25/2017 05:38	WG1013442
1,3-Dichlorobenzene	U		0.000260	0.00109	1	08/25/2017 05:38	WG1013442
1,4-Dichlorobenzene	U		0.000246	0.00109	1	08/25/2017 05:38	WG1013442
Dichlorodifluoromethane	U	JO J3 J4	0.000777	0.00545	1	08/25/2017 05:38	WG1013442
1,1-Dichloroethane	U		0.000217	0.00109	1	08/25/2017 05:38	WG1013442
1,2-Dichloroethane	U		0.000289	0.00109	1	08/25/2017 05:38	WG1013442
1,1-Dichloroethene	0.000583	J	0.000330	0.00109	1	08/25/2017 05:38	WG1013442
cis-1,2-Dichloroethene	3.27		0.0269	0.114	105	08/28/2017 17:46	WG1013442
trans-1,2-Dichloroethene	0.00790		0.000288	0.00109	1	08/25/2017 05:38	WG1013442
1,2-Dichloropropane	U		0.000390	0.00109	1	08/25/2017 05:38	WG1013442
1,1-Dichloropropene	U		0.000345	0.00109	1	08/25/2017 05:38	WG1013442
1,3-Dichloropropane	U		0.000226	0.00109	1	08/25/2017 05:38	WG1013442
cis-1,3-Dichloropropene	U		0.000285	0.00109	1	08/25/2017 05:38	WG1013442
trans-1,3-Dichloropropene	U		0.000291	0.00109	1	08/25/2017 05:38	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000848	0.00272	1	08/25/2017 05:38	WG1013442
2,2-Dichloropropane	U		0.000304	0.00109	1	08/25/2017 05:38	WG1013442
Di-isopropyl ether	U		0.000270	0.00109	1	08/25/2017 05:38	WG1013442
Ethylbenzene	U		0.000324	0.00109	1	08/25/2017 05:38	WG1013442
Hexachloro-1,3-butadiene	U		0.000373	0.00109	1	08/25/2017 05:38	WG1013442
2-Hexanone	U		0.00149	0.0109	1	08/25/2017 05:38	WG1013442
n-Hexane	0.000325	J J3	0.000316	0.0109	1	08/25/2017 05:38	WG1013442



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00276	0.0109	1	08/25/2017 05:38	WG1013442
Isopropylbenzene	U		0.000265	0.00109	1	08/25/2017 05:38	WG1013442
p-Isopropyltoluene	U		0.000222	0.00109	1	08/25/2017 05:38	WG1013442
2-Butanone (MEK)	U		0.00510	0.0109	1	08/25/2017 05:38	WG1013442
Methylene Chloride	U		0.00109	0.00545	1	08/25/2017 05:38	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00205	0.0109	1	08/25/2017 05:38	WG1013442
Methyl tert-butyl ether	U		0.000231	0.00109	1	08/25/2017 05:38	WG1013442
Naphthalene	U		0.00109	0.00545	1	08/25/2017 05:38	WG1013442
n-Propylbenzene	U		0.000224	0.00109	1	08/25/2017 05:38	WG1013442
Styrene	U		0.000255	0.00109	1	08/25/2017 05:38	WG1013442
1,1,1-Tetrachloroethane	U		0.000288	0.00109	1	08/25/2017 05:38	WG1013442
1,1,2-Tetrachloroethane	U		0.000398	0.00109	1	08/25/2017 05:38	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000398	0.00109	1	08/25/2017 05:38	WG1013442
Tetrachloroethene	0.000912	J	0.000301	0.00109	1	08/25/2017 05:38	WG1013442
Toluene	U		0.000473	0.00545	1	08/25/2017 05:38	WG1013442
1,2,3-Trichlorobenzene	U		0.000333	0.00109	1	08/25/2017 05:38	WG1013442
1,2,4-Trichlorobenzene	U		0.000423	0.00109	1	08/25/2017 05:38	WG1013442
1,1,1-Trichloroethane	U		0.000312	0.00109	1	08/25/2017 05:38	WG1013442
1,1,2-Trichloroethane	U		0.000302	0.00109	1	08/25/2017 05:38	WG1013442
Trichloroethene	0.000376	J	0.000304	0.00109	1	08/25/2017 05:38	WG1013442
Trichlorofluoromethane	U	J3	0.000416	0.00545	1	08/25/2017 05:38	WG1013442
1,2,3-Trichloropropane	U		0.000807	0.00272	1	08/25/2017 05:38	WG1013442
1,2,4-Trimethylbenzene	U		0.000230	0.00109	1	08/25/2017 05:38	WG1013442
1,2,3-Trimethylbenzene	U		0.000313	0.00109	1	08/25/2017 05:38	WG1013442
1,3,5-Trimethylbenzene	U		0.000290	0.00109	1	08/25/2017 05:38	WG1013442
Vinyl acetate	U		0.00260	0.0109	1	08/25/2017 05:38	WG1013442
Vinyl chloride	0.00182	J3 J4	0.000317	0.00109	1	08/25/2017 05:38	WG1013442
Xylenes, Total	U		0.000760	0.00327	1	08/25/2017 05:38	WG1013442
(S) Toluene-d8	106			80.0-120		08/28/2017 17:46	WG1013442
(S) Toluene-d8	98.5			80.0-120		08/25/2017 05:38	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 05:38	WG1013442
(S) Dibromofluoromethane	99.1			74.0-131		08/28/2017 17:46	WG1013442
(S) 4-Bromofluorobenzene	95.3			64.0-132		08/25/2017 05:38	WG1013442
(S) 4-Bromofluorobenzene	97.4			64.0-132		08/28/2017 17:46	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.2		1	08/28/2017 16:45	WG1013768

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.910	2.68	25	08/27/2017 07:04	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	98.9			77.0-120		08/27/2017 07:04	WG1013897

Sample Narrative:

L931390-07 WG1013897: Elevated RL. Reported from MEOH vial. Bisulfates used in previous runs.

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.268	1.34	25	08/28/2017 18:12	WG1013442
Acrylonitrile	U		0.0481	0.268	25	08/28/2017 18:12	WG1013442
Benzene	U		0.00724	0.0268	25	08/28/2017 18:12	WG1013442
Bromobenzene	U		0.00762	0.0268	25	08/28/2017 18:12	WG1013442
Bromodichloromethane	U		0.00682	0.0268	25	08/28/2017 18:12	WG1013442
Bromochloromethane	U		0.0105	0.134	25	08/28/2017 18:12	WG1013442
Bromoform	U		0.0114	0.0268	25	08/28/2017 18:12	WG1013442
Bromomethane	U	J3	0.0360	0.134	25	08/28/2017 18:12	WG1013442
n-Butylbenzene	U		0.00692	0.0268	25	08/28/2017 18:12	WG1013442
sec-Butylbenzene	U		0.00539	0.0268	25	08/28/2017 18:12	WG1013442
tert-Butylbenzene	U		0.00553	0.0268	25	08/28/2017 18:12	WG1013442
Carbon disulfide	U	J3	0.00592	0.0268	25	08/28/2017 18:12	WG1013442
Carbon tetrachloride	U		0.00880	0.0268	25	08/28/2017 18:12	WG1013442
Chlorobenzene	U		0.00569	0.0268	25	08/28/2017 18:12	WG1013442
Chlorodibromomethane	U		0.0100	0.0268	25	08/28/2017 18:12	WG1013442
Chloroethane	U	J3	0.0253	0.134	25	08/28/2017 18:12	WG1013442
Chloroform	U		0.00614	0.134	25	08/28/2017 18:12	WG1013442
Chloromethane	U	J3	0.0101	0.0671	25	08/28/2017 18:12	WG1013442
2-Chlorotoluene	U		0.00807	0.0268	25	08/28/2017 18:12	WG1013442
4-Chlorotoluene	U		0.00644	0.0268	25	08/28/2017 18:12	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.0281	0.134	25	08/28/2017 18:12	WG1013442
1,2-Dibromoethane	U		0.00921	0.0268	25	08/28/2017 18:12	WG1013442
Dibromomethane	U		0.0102	0.0268	25	08/28/2017 18:12	WG1013442
1,2-Dichlorobenzene	U		0.00818	0.0268	25	08/28/2017 18:12	WG1013442
1,3-Dichlorobenzene	U		0.00642	0.0268	25	08/28/2017 18:12	WG1013442
1,4-Dichlorobenzene	U		0.00606	0.0268	25	08/28/2017 18:12	WG1013442
Dichlorodifluoromethane	U	J3 J4	0.0191	0.134	25	08/28/2017 18:12	WG1013442
1,1-Dichloroethane	U		0.00534	0.0268	25	08/28/2017 18:12	WG1013442
1,2-Dichloroethane	U		0.00710	0.0268	25	08/28/2017 18:12	WG1013442
1,1-Dichloroethene	U		0.00814	0.0268	25	08/28/2017 18:12	WG1013442
cis-1,2-Dichloroethene	U		0.00631	0.0268	25	08/28/2017 18:12	WG1013442
trans-1,2-Dichloroethene	U		0.00708	0.0268	25	08/28/2017 18:12	WG1013442
1,2-Dichloropropane	U		0.00961	0.0268	25	08/28/2017 18:12	WG1013442
1,1-Dichloropropene	U		0.00850	0.0268	25	08/28/2017 18:12	WG1013442
1,3-Dichloropropane	U		0.00556	0.0268	25	08/28/2017 18:12	WG1013442
cis-1,3-Dichloropropene	U		0.00703	0.0268	25	08/28/2017 18:12	WG1013442
trans-1,3-Dichloropropene	U		0.00717	0.0268	25	08/28/2017 18:12	WG1013442
trans-1,4-Dichloro-2-butene	U		0.0208	0.0671	25	08/28/2017 18:12	WG1013442
2,2-Dichloropropane	U		0.00749	0.0268	25	08/28/2017 18:12	WG1013442
Di-isopropyl ether	U		0.00665	0.0268	25	08/28/2017 18:12	WG1013442
Ethylbenzene	U		0.00796	0.0268	25	08/28/2017 18:12	WG1013442



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.00918	0.0268	25	08/28/2017 18:12	WG1013442
2-Hexanone	U		0.0367	0.268	25	08/28/2017 18:12	WG1013442
n-Hexane	U	J3	0.00778	0.268	25	08/28/2017 18:12	WG1013442
Iodomethane	U		0.0678	0.268	25	08/28/2017 18:12	WG1013442
Isopropylbenzene	U		0.00653	0.0268	25	08/28/2017 18:12	WG1013442
p-Isopropyltoluene	U		0.00547	0.0268	25	08/28/2017 18:12	WG1013442
2-Butanone (MEK)	U		0.126	0.268	25	08/28/2017 18:12	WG1013442
Methylene Chloride	U		0.0268	0.134	25	08/28/2017 18:12	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.0504	0.268	25	08/28/2017 18:12	WG1013442
Methyl tert-butyl ether	0.0446		0.00569	0.0268	25	08/28/2017 18:12	WG1013442
Naphthalene	U		0.0268	0.134	25	08/28/2017 18:12	WG1013442
n-Propylbenzene	U		0.00553	0.0268	25	08/28/2017 18:12	WG1013442
Styrene	U		0.00628	0.0268	25	08/28/2017 18:12	WG1013442
1,1,1,2-Tetrachloroethane	U		0.00708	0.0268	25	08/28/2017 18:12	WG1013442
1,1,2,2-Tetrachloroethane	U		0.00979	0.0268	25	08/28/2017 18:12	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.00979	0.0268	25	08/28/2017 18:12	WG1013442
Tetrachloroethene	U		0.00741	0.0268	25	08/28/2017 18:12	WG1013442
Toluene	U		0.0116	0.134	25	08/28/2017 18:12	WG1013442
1,2,3-Trichlorobenzene	U		0.00821	0.0268	25	08/28/2017 18:12	WG1013442
1,2,4-Trichlorobenzene	U		0.0104	0.0268	25	08/28/2017 18:12	WG1013442
1,1,1-Trichloroethane	U		0.00767	0.0268	25	08/28/2017 18:12	WG1013442
1,1,2-Trichloroethane	U		0.00743	0.0268	25	08/28/2017 18:12	WG1013442
Trichloroethene	U		0.00749	0.0268	25	08/28/2017 18:12	WG1013442
Trichlorofluoromethane	U	J3	0.0102	0.134	25	08/28/2017 18:12	WG1013442
1,2,3-Trichloropropane	U		0.0199	0.0671	25	08/28/2017 18:12	WG1013442
1,2,4-Trimethylbenzene	U		0.00567	0.0268	25	08/28/2017 18:12	WG1013442
1,2,3-Trimethylbenzene	U		0.00771	0.0268	25	08/28/2017 18:12	WG1013442
1,3,5-Trimethylbenzene	U		0.00714	0.0268	25	08/28/2017 18:12	WG1013442
Vinyl acetate	U		0.0642	0.268	25	08/28/2017 18:12	WG1013442
Vinyl chloride	U	J3 J4	0.00781	0.0268	25	08/28/2017 18:12	WG1013442
Xylenes, Total	U		0.0187	0.0805	25	08/28/2017 18:12	WG1013442
(S) Toluene-d8	93.3			80.0-120		08/28/2017 18:12	WG1013442
(S) Dibromofluoromethane	97.5			74.0-131		08/28/2017 18:12	WG1013442
(S) 4-Bromofluorobenzene	98.4			64.0-132		08/28/2017 18:12	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L931390-07 WG1013442: No stir bars remain for analysis.



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	2880		31.6	100	1	08/27/2017 16:52	WG1013145
(S) a,a,a-Trifluorotoluene(FID)	100			77.0-122		08/27/2017 16:52	WG1013145

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	8.66	J	1.05	25.0	1	08/25/2017 12:48	WG1013682
Acrylonitrile	U		0.873	5.00	1	08/25/2017 12:48	WG1013682
Benzene	1.65		0.0896	0.500	1	08/25/2017 12:48	WG1013682
Bromobenzene	U		0.133	0.500	1	08/25/2017 12:48	WG1013682
Bromodichloromethane	U		0.0800	0.500	1	08/25/2017 12:48	WG1013682
Bromochloromethane	U		0.145	0.500	1	08/25/2017 12:48	WG1013682
Bromoform	U		0.186	0.500	1	08/25/2017 12:48	WG1013682
Bromomethane	U		0.157	2.50	1	08/25/2017 12:48	WG1013682
n-Butylbenzene	U		0.143	0.500	1	08/25/2017 12:48	WG1013682
sec-Butylbenzene	U		0.134	0.500	1	08/25/2017 12:48	WG1013682
tert-Butylbenzene	U		0.183	0.500	1	08/25/2017 12:48	WG1013682
Carbon disulfide	U		0.101	0.500	1	08/25/2017 12:48	WG1013682
Carbon tetrachloride	U		0.159	0.500	1	08/25/2017 12:48	WG1013682
Chlorobenzene	U		0.140	0.500	1	08/25/2017 12:48	WG1013682
Chlorodibromomethane	U		0.128	0.500	1	08/25/2017 12:48	WG1013682
Chloroethane	U		0.141	2.50	1	08/25/2017 12:48	WG1013682
Chloroform	U		0.0860	0.500	1	08/25/2017 12:48	WG1013682
Chloromethane	0.554	J	0.153	1.25	1	08/25/2017 12:48	WG1013682
2-Chlorotoluene	U		0.111	0.500	1	08/25/2017 12:48	WG1013682
4-Chlorotoluene	U		0.0972	0.500	1	08/25/2017 12:48	WG1013682
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/25/2017 12:48	WG1013682
1,2-Dibromoethane	U		0.193	0.500	1	08/25/2017 12:48	WG1013682
Dibromomethane	U		0.117	0.500	1	08/25/2017 12:48	WG1013682
1,2-Dichlorobenzene	U		0.101	0.500	1	08/25/2017 12:48	WG1013682
1,3-Dichlorobenzene	U		0.130	0.500	1	08/25/2017 12:48	WG1013682
1,4-Dichlorobenzene	U		0.121	0.500	1	08/25/2017 12:48	WG1013682
Dichlorodifluoromethane	U		0.127	2.50	1	08/25/2017 12:48	WG1013682
1,1-Dichloroethane	U		0.114	0.500	1	08/25/2017 12:48	WG1013682
1,2-Dichloroethane	U		0.108	0.500	1	08/25/2017 12:48	WG1013682
1,1-Dichloroethene	0.249	J	0.188	0.500	1	08/25/2017 12:48	WG1013682
cis-1,2-Dichloroethene	4.86		0.0933	0.500	1	08/25/2017 12:48	WG1013682
trans-1,2-Dichloroethene	0.168	J	0.152	0.500	1	08/25/2017 12:48	WG1013682
1,2-Dichloropropane	U		0.190	0.500	1	08/25/2017 12:48	WG1013682
1,1-Dichloropropene	U		0.128	0.500	1	08/25/2017 12:48	WG1013682
1,3-Dichloropropane	U		0.147	1.00	1	08/25/2017 12:48	WG1013682
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/25/2017 12:48	WG1013682
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/25/2017 12:48	WG1013682
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/25/2017 12:48	WG1013682
2,2-Dichloropropane	U		0.0929	0.500	1	08/25/2017 12:48	WG1013682
Di-isopropyl ether	U		0.0924	0.500	1	08/25/2017 12:48	WG1013682
Ethylbenzene	0.557		0.158	0.500	1	08/25/2017 12:48	WG1013682
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/25/2017 12:48	WG1013682
2-Hexanone	5.14		0.757	5.00	1	08/25/2017 12:48	WG1013682
n-Hexane	3.68	J	0.305	5.00	1	08/25/2017 12:48	WG1013682
Iodomethane	U		0.377	10.0	1	08/25/2017 12:48	WG1013682
Isopropylbenzene	U		0.126	0.500	1	08/25/2017 12:48	WG1013682
p-Isopropyltoluene	U		0.138	0.500	1	08/25/2017 12:48	WG1013682
2-Butanone (MEK)	25.2	JO	1.28	5.00	1	08/25/2017 12:48	WG1013682

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	08/25/2017 12:48	WG1013682
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/25/2017 12:48	WG1013682
Methyl tert-butyl ether	U		0.102	0.500	1	08/25/2017 12:48	WG1013682
Naphthalene	0.262	<u>BJ</u>	0.174	2.50	1	08/25/2017 12:48	WG1013682
n-Propylbenzene	U		0.162	0.500	1	08/25/2017 12:48	WG1013682
Styrene	0.168	<u>J</u>	0.117	0.500	1	08/25/2017 12:48	WG1013682
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/25/2017 12:48	WG1013682
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/25/2017 12:48	WG1013682
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/25/2017 12:48	WG1013682
Tetrachloroethene	19.8		0.199	0.500	1	08/25/2017 12:48	WG1013682
Toluene	297		20.6	25.0	50	08/30/2017 02:27	WG1013682
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/25/2017 12:48	WG1013682
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/25/2017 12:48	WG1013682
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/25/2017 12:48	WG1013682
1,1,2-Trichloroethane	U		0.186	0.500	1	08/25/2017 12:48	WG1013682
Trichloroethene	8.34		0.153	0.500	1	08/25/2017 12:48	WG1013682
Trichlorofluoromethane	U		0.130	2.50	1	08/25/2017 12:48	WG1013682
1,2,3-Trichloropropane	U		0.247	2.50	1	08/25/2017 12:48	WG1013682
1,2,4-Trimethylbenzene	0.376	<u>BJ</u>	0.123	0.500	1	08/25/2017 12:48	WG1013682
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/25/2017 12:48	WG1013682
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/25/2017 12:48	WG1013682
Vinyl acetate	U		0.645	5.00	1	08/25/2017 12:48	WG1013682
Vinyl chloride	0.160	<u>J</u>	0.118	0.500	1	08/25/2017 12:48	WG1013682
Xylenes, Total	1.67		0.316	1.50	1	08/25/2017 12:48	WG1013682
(S) Toluene-d8	102			80.0-120		08/30/2017 02:27	WG1013682
(S) Toluene-d8	119			80.0-120		08/25/2017 12:48	WG1013682
(S) Dibromofluoromethane	102			76.0-123		08/30/2017 02:27	WG1013682
(S) Dibromofluoromethane	101			76.0-123		08/25/2017 12:48	WG1013682
(S) 4-Bromofluorobenzene	101			80.0-120		08/25/2017 12:48	WG1013682
(S) 4-Bromofluorobenzene	101			80.0-120		08/30/2017 02:27	WG1013682

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.93	J	1.05	25.0	1	08/25/2017 12:08	WG1013682
Acrylonitrile	U		0.873	5.00	1	08/25/2017 12:08	WG1013682
Benzene	0.155	J	0.0896	0.500	1	08/25/2017 12:08	WG1013682
Bromobenzene	U		0.133	0.500	1	08/25/2017 12:08	WG1013682
Bromodichloromethane	U		0.0800	0.500	1	08/25/2017 12:08	WG1013682
Bromochloromethane	U		0.145	0.500	1	08/25/2017 12:08	WG1013682
Bromoform	U		0.186	0.500	1	08/25/2017 12:08	WG1013682
Bromomethane	U		0.157	2.50	1	08/25/2017 12:08	WG1013682
n-Butylbenzene	U		0.143	0.500	1	08/25/2017 12:08	WG1013682
sec-Butylbenzene	U		0.134	0.500	1	08/25/2017 12:08	WG1013682
tert-Butylbenzene	U		0.183	0.500	1	08/25/2017 12:08	WG1013682
Carbon disulfide	U		0.101	0.500	1	08/25/2017 12:08	WG1013682
Carbon tetrachloride	U		0.159	0.500	1	08/25/2017 12:08	WG1013682
Chlorobenzene	U		0.140	0.500	1	08/25/2017 12:08	WG1013682
Chlorodibromomethane	U		0.128	0.500	1	08/25/2017 12:08	WG1013682
Chloroethane	U		0.141	2.50	1	08/25/2017 12:08	WG1013682
Chloroform	U		0.0860	0.500	1	08/25/2017 12:08	WG1013682
Chloromethane	U		0.153	1.25	1	08/25/2017 12:08	WG1013682
2-Chlorotoluene	U		0.111	0.500	1	08/25/2017 12:08	WG1013682
4-Chlorotoluene	U		0.0972	0.500	1	08/25/2017 12:08	WG1013682
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/25/2017 12:08	WG1013682
1,2-Dibromoethane	U		0.193	0.500	1	08/25/2017 12:08	WG1013682
Dibromomethane	U		0.117	0.500	1	08/25/2017 12:08	WG1013682
1,2-Dichlorobenzene	U		0.101	0.500	1	08/25/2017 12:08	WG1013682
1,3-Dichlorobenzene	U		0.130	0.500	1	08/25/2017 12:08	WG1013682
1,4-Dichlorobenzene	U		0.121	0.500	1	08/25/2017 12:08	WG1013682
Dichlorodifluoromethane	U		0.127	2.50	1	08/25/2017 12:08	WG1013682
1,1-Dichloroethane	U		0.114	0.500	1	08/25/2017 12:08	WG1013682
1,2-Dichloroethane	U		0.108	0.500	1	08/25/2017 12:08	WG1013682
1,1-Dichloroethene	U		0.188	0.500	1	08/25/2017 12:08	WG1013682
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/25/2017 12:08	WG1013682
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/25/2017 12:08	WG1013682
1,2-Dichloropropane	U		0.190	0.500	1	08/25/2017 12:08	WG1013682
1,1-Dichloropropene	U		0.128	0.500	1	08/25/2017 12:08	WG1013682
1,3-Dichloropropane	U		0.147	1.00	1	08/25/2017 12:08	WG1013682
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/25/2017 12:08	WG1013682
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/25/2017 12:08	WG1013682
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/25/2017 12:08	WG1013682
2,2-Dichloropropane	U		0.0929	0.500	1	08/25/2017 12:08	WG1013682
Di-isopropyl ether	U		0.0924	0.500	1	08/25/2017 12:08	WG1013682
Ethylbenzene	U		0.158	0.500	1	08/25/2017 12:08	WG1013682
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/25/2017 12:08	WG1013682
2-Hexanone	U		0.757	5.00	1	08/25/2017 12:08	WG1013682
n-Hexane	U		0.305	5.00	1	08/25/2017 12:08	WG1013682
Iodomethane	U		0.377	10.0	1	08/25/2017 12:08	WG1013682
Isopropylbenzene	U		0.126	0.500	1	08/25/2017 12:08	WG1013682
p-Isopropyltoluene	U		0.138	0.500	1	08/25/2017 12:08	WG1013682
2-Butanone (MEK)	U		1.28	5.00	1	08/25/2017 12:08	WG1013682
Methylene Chloride	U		1.07	2.50	1	08/25/2017 12:08	WG1013682
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/25/2017 12:08	WG1013682
Methyl tert-butyl ether	U		0.102	0.500	1	08/25/2017 12:08	WG1013682
Naphthalene	0.479	B J	0.174	2.50	1	08/25/2017 12:08	WG1013682
n-Propylbenzene	U		0.162	0.500	1	08/25/2017 12:08	WG1013682
Styrene	U		0.117	0.500	1	08/25/2017 12:08	WG1013682
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/25/2017 12:08	WG1013682
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/25/2017 12:08	WG1013682

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/21/17 00:00

L931390

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/25/2017 12:08	WG1013682
Tetrachloroethene	U		0.199	0.500	1	08/25/2017 12:08	WG1013682
Toluene	U		0.412	0.500	1	08/25/2017 12:08	WG1013682
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/25/2017 12:08	WG1013682
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/25/2017 12:08	WG1013682
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/25/2017 12:08	WG1013682
1,1,2-Trichloroethane	U		0.186	0.500	1	08/25/2017 12:08	WG1013682
Trichloroethene	U		0.153	0.500	1	08/25/2017 12:08	WG1013682
Trichlorofluoromethane	U		0.130	2.50	1	08/25/2017 12:08	WG1013682
1,2,3-Trichloropropane	U		0.247	2.50	1	08/25/2017 12:08	WG1013682
1,2,4-Trimethylbenzene	0.161	<u>BJ</u>	0.123	0.500	1	08/25/2017 12:08	WG1013682
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/25/2017 12:08	WG1013682
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/25/2017 12:08	WG1013682
Vinyl acetate	U		0.645	5.00	1	08/25/2017 12:08	WG1013682
Vinyl chloride	U		0.118	0.500	1	08/25/2017 12:08	WG1013682
Xylenes, Total	U		0.316	1.50	1	08/25/2017 12:08	WG1013682
(S) Toluene-d8	106			80.0-120		08/25/2017 12:08	WG1013682
(S) Dibromofluoromethane	104			76.0-123		08/25/2017 12:08	WG1013682
(S) 4-Bromofluorobenzene	99.9			80.0-120		08/25/2017 12:08	WG1013682

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.7		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0366	0.108	1	08/27/2017 04:04	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	95.9			77.0-120		08/27/2017 04:04	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0108	0.0539	1	08/25/2017 06:19	WG1013442
Acrylonitrile	U		0.00193	0.0108	1	08/25/2017 06:19	WG1013442
Benzene	U		0.000291	0.00108	1	08/25/2017 06:19	WG1013442
Bromobenzene	U		0.000306	0.00108	1	08/25/2017 06:19	WG1013442
Bromodichloromethane	U		0.000274	0.00108	1	08/25/2017 06:19	WG1013442
Bromochloromethane	U		0.000421	0.00539	1	08/25/2017 06:19	WG1013442
Bromoform	U		0.000457	0.00108	1	08/25/2017 06:19	WG1013442
Bromomethane	U		0.00145	0.00539	1	08/25/2017 06:19	WG1013442
n-Butylbenzene	U		0.000278	0.00108	1	08/25/2017 06:19	WG1013442
sec-Butylbenzene	U		0.000217	0.00108	1	08/25/2017 06:19	WG1013442
tert-Butylbenzene	U		0.000222	0.00108	1	08/25/2017 06:19	WG1013442
Carbon disulfide	0.000803	J	0.000238	0.00108	1	08/25/2017 06:19	WG1013442
Carbon tetrachloride	U		0.000354	0.00108	1	08/25/2017 06:19	WG1013442
Chlorobenzene	U		0.000229	0.00108	1	08/25/2017 06:19	WG1013442
Chlorodibromomethane	U		0.000402	0.00108	1	08/25/2017 06:19	WG1013442
Chloroethane	U		0.00102	0.00539	1	08/25/2017 06:19	WG1013442
Chloroform	U		0.000247	0.00539	1	08/25/2017 06:19	WG1013442
Chloromethane	U	JO	0.000405	0.00270	1	08/25/2017 06:19	WG1013442
2-Chlorotoluene	U		0.000325	0.00108	1	08/25/2017 06:19	WG1013442
4-Chlorotoluene	U		0.000259	0.00108	1	08/25/2017 06:19	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00113	0.00539	1	08/25/2017 06:19	WG1013442
1,2-Dibromoethane	U		0.000370	0.00108	1	08/25/2017 06:19	WG1013442
Dibromomethane	U		0.000412	0.00108	1	08/25/2017 06:19	WG1013442
1,2-Dichlorobenzene	U		0.000329	0.00108	1	08/25/2017 06:19	WG1013442
1,3-Dichlorobenzene	U		0.000258	0.00108	1	08/25/2017 06:19	WG1013442
1,4-Dichlorobenzene	U		0.000244	0.00108	1	08/25/2017 06:19	WG1013442
Dichlorodifluoromethane	U	JO J4	0.000769	0.00539	1	08/25/2017 06:19	WG1013442
1,1-Dichloroethane	U		0.000215	0.00108	1	08/25/2017 06:19	WG1013442
1,2-Dichloroethane	U		0.000286	0.00108	1	08/25/2017 06:19	WG1013442
1,1-Dichloroethene	U		0.000327	0.00108	1	08/25/2017 06:19	WG1013442
cis-1,2-Dichloroethene	0.0115		0.000254	0.00108	1	08/25/2017 06:19	WG1013442
trans-1,2-Dichloroethene	U		0.000285	0.00108	1	08/25/2017 06:19	WG1013442
1,2-Dichloropropane	U		0.000386	0.00108	1	08/25/2017 06:19	WG1013442
1,1-Dichloropropene	U		0.000342	0.00108	1	08/25/2017 06:19	WG1013442
1,3-Dichloropropane	U		0.000223	0.00108	1	08/25/2017 06:19	WG1013442
cis-1,3-Dichloropropene	U		0.000283	0.00108	1	08/25/2017 06:19	WG1013442
trans-1,3-Dichloropropene	U		0.000288	0.00108	1	08/25/2017 06:19	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000839	0.00270	1	08/25/2017 06:19	WG1013442
2,2-Dichloropropane	U		0.000301	0.00108	1	08/25/2017 06:19	WG1013442
Di-isopropyl ether	U		0.000268	0.00108	1	08/25/2017 06:19	WG1013442
Ethylbenzene	U		0.000320	0.00108	1	08/25/2017 06:19	WG1013442
Hexachloro-1,3-butadiene	U		0.000369	0.00108	1	08/25/2017 06:19	WG1013442
2-Hexanone	U		0.00148	0.0108	1	08/25/2017 06:19	WG1013442
n-Hexane	0.00741	J	0.000313	0.0108	1	08/25/2017 06:19	WG1013442

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00273	0.0108	1	08/25/2017 06:19	WG1013442
Isopropylbenzene	U		0.000262	0.00108	1	08/25/2017 06:19	WG1013442
p-Isopropyltoluene	U		0.000220	0.00108	1	08/25/2017 06:19	WG1013442
2-Butanone (MEK)	U		0.00505	0.0108	1	08/25/2017 06:19	WG1013442
Methylene Chloride	U		0.00108	0.00539	1	08/25/2017 06:19	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00203	0.0108	1	08/25/2017 06:19	WG1013442
Methyl tert-butyl ether	U		0.000229	0.00108	1	08/25/2017 06:19	WG1013442
Naphthalene	U		0.00108	0.00539	1	08/25/2017 06:19	WG1013442
n-Propylbenzene	U		0.000222	0.00108	1	08/25/2017 06:19	WG1013442
Styrene	U		0.000252	0.00108	1	08/25/2017 06:19	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000285	0.00108	1	08/25/2017 06:19	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000394	0.00108	1	08/25/2017 06:19	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000394	0.00108	1	08/25/2017 06:19	WG1013442
Tetrachloroethene	U		0.000298	0.00108	1	08/25/2017 06:19	WG1013442
Toluene	U		0.000468	0.00539	1	08/25/2017 06:19	WG1013442
1,2,3-Trichlorobenzene	U		0.000330	0.00108	1	08/25/2017 06:19	WG1013442
1,2,4-Trichlorobenzene	U		0.000419	0.00108	1	08/25/2017 06:19	WG1013442
1,1,1-Trichloroethane	U		0.000309	0.00108	1	08/25/2017 06:19	WG1013442
1,1,2-Trichloroethane	U		0.000299	0.00108	1	08/25/2017 06:19	WG1013442
Trichloroethene	U		0.000301	0.00108	1	08/25/2017 06:19	WG1013442
Trichlorofluoromethane	U		0.000412	0.00539	1	08/25/2017 06:19	WG1013442
1,2,3-Trichloropropane	U		0.000799	0.00270	1	08/25/2017 06:19	WG1013442
1,2,4-Trimethylbenzene	U		0.000228	0.00108	1	08/25/2017 06:19	WG1013442
1,2,3-Trimethylbenzene	U		0.000310	0.00108	1	08/25/2017 06:19	WG1013442
1,3,5-Trimethylbenzene	U		0.000287	0.00108	1	08/25/2017 06:19	WG1013442
Vinyl acetate	U		0.00258	0.0108	1	08/25/2017 06:19	WG1013442
Vinyl chloride	U	J4	0.000314	0.00108	1	08/25/2017 06:19	WG1013442
Xylenes, Total	U		0.000753	0.00324	1	08/25/2017 06:19	WG1013442
(S) Toluene-d8	97.6			80.0-120		08/25/2017 06:19	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 06:19	WG1013442
(S) 4-Bromofluorobenzene	94.8			64.0-132		08/25/2017 06:19	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0374	0.110	1	08/27/2017 04:52	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.2			77.0-120		08/27/2017 04:52	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0110	0.0552	1	08/25/2017 06:40	WG1013442
Acrylonitrile	U		0.00198	0.0110	1	08/25/2017 06:40	WG1013442
Benzene	U		0.000298	0.00110	1	08/25/2017 06:40	WG1013442
Bromobenzene	U		0.000314	0.00110	1	08/25/2017 06:40	WG1013442
Bromodichloromethane	U		0.000281	0.00110	1	08/25/2017 06:40	WG1013442
Bromochloromethane	U		0.000431	0.00552	1	08/25/2017 06:40	WG1013442
Bromoform	U		0.000468	0.00110	1	08/25/2017 06:40	WG1013442
Bromomethane	U	J3	0.00148	0.00552	1	08/25/2017 06:40	WG1013442
n-Butylbenzene	U		0.000285	0.00110	1	08/25/2017 06:40	WG1013442
sec-Butylbenzene	U		0.000222	0.00110	1	08/25/2017 06:40	WG1013442
tert-Butylbenzene	U		0.000228	0.00110	1	08/25/2017 06:40	WG1013442
Carbon disulfide	U	J3	0.000244	0.00110	1	08/25/2017 06:40	WG1013442
Carbon tetrachloride	U		0.000362	0.00110	1	08/25/2017 06:40	WG1013442
Chlorobenzene	U		0.000234	0.00110	1	08/25/2017 06:40	WG1013442
Chlorodibromomethane	U		0.000412	0.00110	1	08/25/2017 06:40	WG1013442
Chloroethane	U	J3	0.00104	0.00552	1	08/25/2017 06:40	WG1013442
Chloroform	U		0.000253	0.00552	1	08/25/2017 06:40	WG1013442
Chloromethane	U	JO J3	0.000414	0.00276	1	08/25/2017 06:40	WG1013442
2-Chlorotoluene	U		0.000332	0.00110	1	08/25/2017 06:40	WG1013442
4-Chlorotoluene	U		0.000265	0.00110	1	08/25/2017 06:40	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00116	0.00552	1	08/25/2017 06:40	WG1013442
1,2-Dibromoethane	U		0.000379	0.00110	1	08/25/2017 06:40	WG1013442
Dibromomethane	U		0.000422	0.00110	1	08/25/2017 06:40	WG1013442
1,2-Dichlorobenzene	U		0.000337	0.00110	1	08/25/2017 06:40	WG1013442
1,3-Dichlorobenzene	U		0.000264	0.00110	1	08/25/2017 06:40	WG1013442
1,4-Dichlorobenzene	U		0.000250	0.00110	1	08/25/2017 06:40	WG1013442
Dichlorodifluoromethane	U	JO J3 J4	0.000787	0.00552	1	08/25/2017 06:40	WG1013442
1,1-Dichloroethane	U		0.000220	0.00110	1	08/25/2017 06:40	WG1013442
1,2-Dichloroethane	U		0.000293	0.00110	1	08/25/2017 06:40	WG1013442
1,1-Dichloroethene	U		0.000335	0.00110	1	08/25/2017 06:40	WG1013442
cis-1,2-Dichloroethene	0.000500	J	0.000260	0.00110	1	08/25/2017 06:40	WG1013442
trans-1,2-Dichloroethene	U		0.000292	0.00110	1	08/25/2017 06:40	WG1013442
1,2-Dichloropropane	U		0.000395	0.00110	1	08/25/2017 06:40	WG1013442
1,1-Dichloropropene	U		0.000350	0.00110	1	08/25/2017 06:40	WG1013442
1,3-Dichloropropane	U		0.000229	0.00110	1	08/25/2017 06:40	WG1013442
cis-1,3-Dichloropropene	U		0.000289	0.00110	1	08/25/2017 06:40	WG1013442
trans-1,3-Dichloropropene	U		0.000295	0.00110	1	08/25/2017 06:40	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000859	0.00276	1	08/25/2017 06:40	WG1013442
2,2-Dichloropropane	U		0.000308	0.00110	1	08/25/2017 06:40	WG1013442
Di-isopropyl ether	U		0.000274	0.00110	1	08/25/2017 06:40	WG1013442
Ethylbenzene	U		0.000328	0.00110	1	08/25/2017 06:40	WG1013442
Hexachloro-1,3-butadiene	U		0.000378	0.00110	1	08/25/2017 06:40	WG1013442
2-Hexanone	U		0.00151	0.0110	1	08/25/2017 06:40	WG1013442
n-Hexane	U	J3	0.000320	0.0110	1	08/25/2017 06:40	WG1013442

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/22/17 11:00

L931390

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00279	0.0110	1	08/25/2017 06:40	WG1013442
Isopropylbenzene	U		0.000268	0.00110	1	08/25/2017 06:40	WG1013442
p-Isopropyltoluene	U		0.000225	0.00110	1	08/25/2017 06:40	WG1013442
2-Butanone (MEK)	U		0.00517	0.0110	1	08/25/2017 06:40	WG1013442
Methylene Chloride	U		0.00110	0.00552	1	08/25/2017 06:40	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00208	0.0110	1	08/25/2017 06:40	WG1013442
Methyl tert-butyl ether	U		0.000234	0.00110	1	08/25/2017 06:40	WG1013442
Naphthalene	U		0.00110	0.00552	1	08/25/2017 06:40	WG1013442
n-Propylbenzene	U		0.000228	0.00110	1	08/25/2017 06:40	WG1013442
Styrene	U		0.000258	0.00110	1	08/25/2017 06:40	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000292	0.00110	1	08/25/2017 06:40	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000403	0.00110	1	08/25/2017 06:40	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000403	0.00110	1	08/25/2017 06:40	WG1013442
Tetrachloroethene	U		0.000305	0.00110	1	08/25/2017 06:40	WG1013442
Toluene	U		0.000479	0.00552	1	08/25/2017 06:40	WG1013442
1,2,3-Trichlorobenzene	U		0.000338	0.00110	1	08/25/2017 06:40	WG1013442
1,2,4-Trichlorobenzene	U		0.000429	0.00110	1	08/25/2017 06:40	WG1013442
1,1,1-Trichloroethane	U		0.000316	0.00110	1	08/25/2017 06:40	WG1013442
1,1,2-Trichloroethane	U		0.000306	0.00110	1	08/25/2017 06:40	WG1013442
Trichloroethene	U		0.000308	0.00110	1	08/25/2017 06:40	WG1013442
Trichlorofluoromethane	U	J3	0.000422	0.00552	1	08/25/2017 06:40	WG1013442
1,2,3-Trichloropropane	U		0.000818	0.00276	1	08/25/2017 06:40	WG1013442
1,2,4-Trimethylbenzene	U		0.000233	0.00110	1	08/25/2017 06:40	WG1013442
1,2,3-Trimethylbenzene	U		0.000317	0.00110	1	08/25/2017 06:40	WG1013442
1,3,5-Trimethylbenzene	U		0.000294	0.00110	1	08/25/2017 06:40	WG1013442
Vinyl acetate	U		0.00264	0.0110	1	08/25/2017 06:40	WG1013442
Vinyl chloride	0.000485	J J3 J4	0.000321	0.00110	1	08/25/2017 06:40	WG1013442
Xylenes, Total	U		0.000771	0.00331	1	08/25/2017 06:40	WG1013442
(S) Toluene-d8	97.2			80.0-120		08/25/2017 06:40	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 06:40	WG1013442
(S) 4-Bromofluorobenzene	98.3			64.0-132		08/25/2017 06:40	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.2		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0403	0.119	1	08/27/2017 05:14	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		08/27/2017 05:14	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0119	0.0594	1	08/25/2017 07:01	WG1013442
Acrylonitrile	U		0.00213	0.0119	1	08/25/2017 07:01	WG1013442
Benzene	U		0.000321	0.00119	1	08/25/2017 07:01	WG1013442
Bromobenzene	U		0.000337	0.00119	1	08/25/2017 07:01	WG1013442
Bromodichloromethane	U		0.000302	0.00119	1	08/25/2017 07:01	WG1013442
Bromochloromethane	U		0.000463	0.00594	1	08/25/2017 07:01	WG1013442
Bromoform	U		0.000504	0.00119	1	08/25/2017 07:01	WG1013442
Bromomethane	U	J3	0.00159	0.00594	1	08/25/2017 07:01	WG1013442
n-Butylbenzene	U		0.000306	0.00119	1	08/25/2017 07:01	WG1013442
sec-Butylbenzene	U		0.000239	0.00119	1	08/25/2017 07:01	WG1013442
tert-Butylbenzene	U		0.000245	0.00119	1	08/25/2017 07:01	WG1013442
Carbon disulfide	U	J3	0.000262	0.00119	1	08/25/2017 07:01	WG1013442
Carbon tetrachloride	U		0.000390	0.00119	1	08/25/2017 07:01	WG1013442
Chlorobenzene	U		0.000252	0.00119	1	08/25/2017 07:01	WG1013442
Chlorodibromomethane	U		0.000443	0.00119	1	08/25/2017 07:01	WG1013442
Chloroethane	U	J3	0.00112	0.00594	1	08/25/2017 07:01	WG1013442
Chloroform	U		0.000272	0.00594	1	08/25/2017 07:01	WG1013442
Chloromethane	U	JO J3	0.000445	0.00297	1	08/25/2017 07:01	WG1013442
2-Chlorotoluene	U		0.000357	0.00119	1	08/25/2017 07:01	WG1013442
4-Chlorotoluene	U		0.000285	0.00119	1	08/25/2017 07:01	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00125	0.00594	1	08/25/2017 07:01	WG1013442
1,2-Dibromoethane	U		0.000407	0.00119	1	08/25/2017 07:01	WG1013442
Dibromomethane	U		0.000454	0.00119	1	08/25/2017 07:01	WG1013442
1,2-Dichlorobenzene	U		0.000362	0.00119	1	08/25/2017 07:01	WG1013442
1,3-Dichlorobenzene	U		0.000284	0.00119	1	08/25/2017 07:01	WG1013442
1,4-Dichlorobenzene	U		0.000268	0.00119	1	08/25/2017 07:01	WG1013442
Dichlorodifluoromethane	U	JO J3 J4	0.000847	0.00594	1	08/25/2017 07:01	WG1013442
1,1-Dichloroethane	U		0.000236	0.00119	1	08/25/2017 07:01	WG1013442
1,2-Dichloroethane	U		0.000315	0.00119	1	08/25/2017 07:01	WG1013442
1,1-Dichloroethene	U		0.000360	0.00119	1	08/25/2017 07:01	WG1013442
cis-1,2-Dichloroethene	0.000837	J	0.000279	0.00119	1	08/25/2017 07:01	WG1013442
trans-1,2-Dichloroethene	U		0.000314	0.00119	1	08/25/2017 07:01	WG1013442
1,2-Dichloropropane	U		0.000425	0.00119	1	08/25/2017 07:01	WG1013442
1,1-Dichloropropene	U		0.000376	0.00119	1	08/25/2017 07:01	WG1013442
1,3-Dichloropropane	U		0.000246	0.00119	1	08/25/2017 07:01	WG1013442
cis-1,3-Dichloropropene	U		0.000311	0.00119	1	08/25/2017 07:01	WG1013442
trans-1,3-Dichloropropene	U		0.000317	0.00119	1	08/25/2017 07:01	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000924	0.00297	1	08/25/2017 07:01	WG1013442
2,2-Dichloropropane	U		0.000331	0.00119	1	08/25/2017 07:01	WG1013442
Di-isopropyl ether	U		0.000295	0.00119	1	08/25/2017 07:01	WG1013442
Ethylbenzene	U		0.000353	0.00119	1	08/25/2017 07:01	WG1013442
Hexachloro-1,3-butadiene	U		0.000406	0.00119	1	08/25/2017 07:01	WG1013442
2-Hexanone	U		0.00163	0.0119	1	08/25/2017 07:01	WG1013442
n-Hexane	U	J3	0.000344	0.0119	1	08/25/2017 07:01	WG1013442

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00300	0.0119	1	08/25/2017 07:01	WG1013442
Isopropylbenzene	U		0.000289	0.00119	1	08/25/2017 07:01	WG1013442
p-Isopropyltoluene	U		0.000242	0.00119	1	08/25/2017 07:01	WG1013442
2-Butanone (MEK)	U		0.00556	0.0119	1	08/25/2017 07:01	WG1013442
Methylene Chloride	U		0.00119	0.00594	1	08/25/2017 07:01	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00223	0.0119	1	08/25/2017 07:01	WG1013442
Methyl tert-butyl ether	U		0.000252	0.00119	1	08/25/2017 07:01	WG1013442
Naphthalene	U		0.00119	0.00594	1	08/25/2017 07:01	WG1013442
n-Propylbenzene	U		0.000245	0.00119	1	08/25/2017 07:01	WG1013442
Styrene	U		0.000278	0.00119	1	08/25/2017 07:01	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000314	0.00119	1	08/25/2017 07:01	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000433	0.00119	1	08/25/2017 07:01	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000433	0.00119	1	08/25/2017 07:01	WG1013442
Tetrachloroethene	U		0.000328	0.00119	1	08/25/2017 07:01	WG1013442
Toluene	U		0.000515	0.00594	1	08/25/2017 07:01	WG1013442
1,2,3-Trichlorobenzene	U		0.000363	0.00119	1	08/25/2017 07:01	WG1013442
1,2,4-Trichlorobenzene	U		0.000461	0.00119	1	08/25/2017 07:01	WG1013442
1,1,1-Trichloroethane	U		0.000340	0.00119	1	08/25/2017 07:01	WG1013442
1,1,2-Trichloroethane	U		0.000329	0.00119	1	08/25/2017 07:01	WG1013442
Trichloroethene	U		0.000331	0.00119	1	08/25/2017 07:01	WG1013442
Trichlorofluoromethane	U	J3	0.000454	0.00594	1	08/25/2017 07:01	WG1013442
1,2,3-Trichloropropane	U		0.000880	0.00297	1	08/25/2017 07:01	WG1013442
1,2,4-Trimethylbenzene	U		0.000251	0.00119	1	08/25/2017 07:01	WG1013442
1,2,3-Trimethylbenzene	U		0.000341	0.00119	1	08/25/2017 07:01	WG1013442
1,3,5-Trimethylbenzene	U		0.000316	0.00119	1	08/25/2017 07:01	WG1013442
Vinyl acetate	U		0.00284	0.0119	1	08/25/2017 07:01	WG1013442
Vinyl chloride	U	J3 J4	0.000346	0.00119	1	08/25/2017 07:01	WG1013442
Xylenes, Total	U		0.000829	0.00356	1	08/25/2017 07:01	WG1013442
(S) Toluene-d8	98.2			80.0-120		08/25/2017 07:01	WG1013442
(S) Dibromofluoromethane	100			74.0-131		08/25/2017 07:01	WG1013442
(S) 4-Bromofluorobenzene	97.4			64.0-132		08/25/2017 07:01	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.7		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0378	0.112	1	08/27/2017 05:36	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	97.3			77.0-120		08/27/2017 05:36	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0112	0.0558	1	08/25/2017 07:21	WG1013442
Acrylonitrile	U		0.00200	0.0112	1	08/25/2017 07:21	WG1013442
Benzene	U		0.000301	0.00112	1	08/25/2017 07:21	WG1013442
Bromobenzene	U		0.000317	0.00112	1	08/25/2017 07:21	WG1013442
Bromodichloromethane	U		0.000283	0.00112	1	08/25/2017 07:21	WG1013442
Bromochloromethane	U		0.000435	0.00558	1	08/25/2017 07:21	WG1013442
Bromoform	U		0.000473	0.00112	1	08/25/2017 07:21	WG1013442
Bromomethane	U	J3	0.00149	0.00558	1	08/25/2017 07:21	WG1013442
n-Butylbenzene	U		0.000288	0.00112	1	08/25/2017 07:21	WG1013442
sec-Butylbenzene	U		0.000224	0.00112	1	08/25/2017 07:21	WG1013442
tert-Butylbenzene	U		0.000230	0.00112	1	08/25/2017 07:21	WG1013442
Carbon disulfide	U	J3	0.000246	0.00112	1	08/25/2017 07:21	WG1013442
Carbon tetrachloride	U		0.000366	0.00112	1	08/25/2017 07:21	WG1013442
Chlorobenzene	U		0.000236	0.00112	1	08/25/2017 07:21	WG1013442
Chlorodibromomethane	U		0.000416	0.00112	1	08/25/2017 07:21	WG1013442
Chloroethane	U	J3	0.00105	0.00558	1	08/25/2017 07:21	WG1013442
Chloroform	U		0.000255	0.00558	1	08/25/2017 07:21	WG1013442
Chloromethane	U	JO J3	0.000418	0.00279	1	08/25/2017 07:21	WG1013442
2-Chlorotoluene	U		0.000336	0.00112	1	08/25/2017 07:21	WG1013442
4-Chlorotoluene	U		0.000268	0.00112	1	08/25/2017 07:21	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00558	1	08/25/2017 07:21	WG1013442
1,2-Dibromoethane	U		0.000382	0.00112	1	08/25/2017 07:21	WG1013442
Dibromomethane	U		0.000426	0.00112	1	08/25/2017 07:21	WG1013442
1,2-Dichlorobenzene	U		0.000340	0.00112	1	08/25/2017 07:21	WG1013442
1,3-Dichlorobenzene	U		0.000266	0.00112	1	08/25/2017 07:21	WG1013442
1,4-Dichlorobenzene	U		0.000252	0.00112	1	08/25/2017 07:21	WG1013442
Dichlorodifluoromethane	U	JO J3 J4	0.000795	0.00558	1	08/25/2017 07:21	WG1013442
1,1-Dichloroethane	U		0.000222	0.00112	1	08/25/2017 07:21	WG1013442
1,2-Dichloroethane	U		0.000295	0.00112	1	08/25/2017 07:21	WG1013442
1,1-Dichloroethene	U		0.000338	0.00112	1	08/25/2017 07:21	WG1013442
cis-1,2-Dichloroethene	0.0108		0.000262	0.00112	1	08/25/2017 07:21	WG1013442
trans-1,2-Dichloroethene	0.000443	J	0.000294	0.00112	1	08/25/2017 07:21	WG1013442
1,2-Dichloropropane	U		0.000399	0.00112	1	08/25/2017 07:21	WG1013442
1,1-Dichloropropene	U		0.000353	0.00112	1	08/25/2017 07:21	WG1013442
1,3-Dichloropropane	U		0.000231	0.00112	1	08/25/2017 07:21	WG1013442
cis-1,3-Dichloropropene	U		0.000292	0.00112	1	08/25/2017 07:21	WG1013442
trans-1,3-Dichloropropene	U		0.000298	0.00112	1	08/25/2017 07:21	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000868	0.00279	1	08/25/2017 07:21	WG1013442
2,2-Dichloropropane	U		0.000311	0.00112	1	08/25/2017 07:21	WG1013442
Di-isopropyl ether	U		0.000277	0.00112	1	08/25/2017 07:21	WG1013442
Ethylbenzene	U		0.000331	0.00112	1	08/25/2017 07:21	WG1013442
Hexachloro-1,3-butadiene	U		0.000381	0.00112	1	08/25/2017 07:21	WG1013442
2-Hexanone	U		0.00153	0.0112	1	08/25/2017 07:21	WG1013442
n-Hexane	U	J3	0.000323	0.0112	1	08/25/2017 07:21	WG1013442

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00282	0.0112	1	08/25/2017 07:21	WG1013442
Isopropylbenzene	U		0.000271	0.00112	1	08/25/2017 07:21	WG1013442
p-Isopropyltoluene	U		0.000227	0.00112	1	08/25/2017 07:21	WG1013442
2-Butanone (MEK)	U		0.00522	0.0112	1	08/25/2017 07:21	WG1013442
Methylene Chloride	U		0.00112	0.00558	1	08/25/2017 07:21	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00210	0.0112	1	08/25/2017 07:21	WG1013442
Methyl tert-butyl ether	U		0.000236	0.00112	1	08/25/2017 07:21	WG1013442
Naphthalene	U		0.00112	0.00558	1	08/25/2017 07:21	WG1013442
n-Propylbenzene	U		0.000230	0.00112	1	08/25/2017 07:21	WG1013442
Styrene	U		0.000261	0.00112	1	08/25/2017 07:21	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000294	0.00112	1	08/25/2017 07:21	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000407	0.00112	1	08/25/2017 07:21	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000407	0.00112	1	08/25/2017 07:21	WG1013442
Tetrachloroethene	0.000312	J	0.000308	0.00112	1	08/25/2017 07:21	WG1013442
Toluene	U		0.000484	0.00558	1	08/25/2017 07:21	WG1013442
1,2,3-Trichlorobenzene	U		0.000341	0.00112	1	08/25/2017 07:21	WG1013442
1,2,4-Trichlorobenzene	U		0.000433	0.00112	1	08/25/2017 07:21	WG1013442
1,1,1-Trichloroethane	U		0.000319	0.00112	1	08/25/2017 07:21	WG1013442
1,1,2-Trichloroethane	U		0.000309	0.00112	1	08/25/2017 07:21	WG1013442
Trichloroethene	0.000380	J	0.000311	0.00112	1	08/25/2017 07:21	WG1013442
Trichlorofluoromethane	U	J3	0.000426	0.00558	1	08/25/2017 07:21	WG1013442
1,2,3-Trichloropropane	U		0.000826	0.00279	1	08/25/2017 07:21	WG1013442
1,2,4-Trimethylbenzene	U		0.000235	0.00112	1	08/25/2017 07:21	WG1013442
1,2,3-Trimethylbenzene	U		0.000320	0.00112	1	08/25/2017 07:21	WG1013442
1,3,5-Trimethylbenzene	U		0.000297	0.00112	1	08/25/2017 07:21	WG1013442
Vinyl acetate	U		0.00266	0.0112	1	08/25/2017 07:21	WG1013442
Vinyl chloride	0.00217	J3 J4	0.000324	0.00112	1	08/25/2017 07:21	WG1013442
Xylenes, Total	U		0.000778	0.00335	1	08/25/2017 07:21	WG1013442
(S) Toluene-d8	98.2			80.0-120		08/25/2017 07:21	WG1013442
(S) Dibromofluoromethane	102			74.0-131		08/25/2017 07:21	WG1013442
(S) 4-Bromofluorobenzene	94.5			64.0-132		08/25/2017 07:21	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.4		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0379	0.112	1	08/27/2017 05:58	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		08/27/2017 05:58	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0112	0.0559	1	08/25/2017 07:42	WG1013442
Acrylonitrile	U		0.00200	0.0112	1	08/25/2017 07:42	WG1013442
Benzene	U		0.000302	0.00112	1	08/25/2017 07:42	WG1013442
Bromobenzene	U		0.000318	0.00112	1	08/25/2017 07:42	WG1013442
Bromodichloromethane	U		0.000284	0.00112	1	08/25/2017 07:42	WG1013442
Bromochloromethane	U		0.000436	0.00559	1	08/25/2017 07:42	WG1013442
Bromoform	U		0.000474	0.00112	1	08/25/2017 07:42	WG1013442
Bromomethane	U	J3	0.00150	0.00559	1	08/25/2017 07:42	WG1013442
n-Butylbenzene	U		0.000289	0.00112	1	08/25/2017 07:42	WG1013442
sec-Butylbenzene	U		0.000225	0.00112	1	08/25/2017 07:42	WG1013442
tert-Butylbenzene	U		0.000230	0.00112	1	08/25/2017 07:42	WG1013442
Carbon disulfide	0.00118	J3	0.000247	0.00112	1	08/25/2017 07:42	WG1013442
Carbon tetrachloride	U		0.000367	0.00112	1	08/25/2017 07:42	WG1013442
Chlorobenzene	U		0.000237	0.00112	1	08/25/2017 07:42	WG1013442
Chlorodibromomethane	U		0.000417	0.00112	1	08/25/2017 07:42	WG1013442
Chloroethane	U	J3	0.00106	0.00559	1	08/25/2017 07:42	WG1013442
Chloroform	U		0.000256	0.00559	1	08/25/2017 07:42	WG1013442
Chloromethane	U	JO J3	0.000420	0.00280	1	08/25/2017 07:42	WG1013442
2-Chlorotoluene	U		0.000337	0.00112	1	08/25/2017 07:42	WG1013442
4-Chlorotoluene	U		0.000269	0.00112	1	08/25/2017 07:42	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00559	1	08/25/2017 07:42	WG1013442
1,2-Dibromoethane	U		0.000384	0.00112	1	08/25/2017 07:42	WG1013442
Dibromomethane	U		0.000427	0.00112	1	08/25/2017 07:42	WG1013442
1,2-Dichlorobenzene	U		0.000341	0.00112	1	08/25/2017 07:42	WG1013442
1,3-Dichlorobenzene	U		0.000267	0.00112	1	08/25/2017 07:42	WG1013442
1,4-Dichlorobenzene	U		0.000253	0.00112	1	08/25/2017 07:42	WG1013442
Dichlorodifluoromethane	U	JO J3 J4	0.000798	0.00559	1	08/25/2017 07:42	WG1013442
1,1-Dichloroethane	U		0.000223	0.00112	1	08/25/2017 07:42	WG1013442
1,2-Dichloroethane	U		0.000297	0.00112	1	08/25/2017 07:42	WG1013442
1,1-Dichloroethene	U		0.000339	0.00112	1	08/25/2017 07:42	WG1013442
cis-1,2-Dichloroethene	0.00506		0.000263	0.00112	1	08/25/2017 07:42	WG1013442
trans-1,2-Dichloroethene	U		0.000295	0.00112	1	08/25/2017 07:42	WG1013442
1,2-Dichloropropane	U		0.000401	0.00112	1	08/25/2017 07:42	WG1013442
1,1-Dichloropropene	U		0.000355	0.00112	1	08/25/2017 07:42	WG1013442
1,3-Dichloropropane	U		0.000232	0.00112	1	08/25/2017 07:42	WG1013442
cis-1,3-Dichloropropene	U		0.000293	0.00112	1	08/25/2017 07:42	WG1013442
trans-1,3-Dichloropropene	U		0.000299	0.00112	1	08/25/2017 07:42	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000871	0.00280	1	08/25/2017 07:42	WG1013442
2,2-Dichloropropane	U		0.000312	0.00112	1	08/25/2017 07:42	WG1013442
Di-isopropyl ether	U		0.000277	0.00112	1	08/25/2017 07:42	WG1013442
Ethylbenzene	U		0.000332	0.00112	1	08/25/2017 07:42	WG1013442
Hexachloro-1,3-butadiene	U		0.000383	0.00112	1	08/25/2017 07:42	WG1013442
2-Hexanone	U		0.00153	0.0112	1	08/25/2017 07:42	WG1013442
n-Hexane	U	J3	0.000324	0.0112	1	08/25/2017 07:42	WG1013442

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/22/17 15:05

L931390

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00283	0.0112	1	08/25/2017 07:42	WG1013442
Isopropylbenzene	U		0.000272	0.00112	1	08/25/2017 07:42	WG1013442
p-Isopropyltoluene	U		0.000228	0.00112	1	08/25/2017 07:42	WG1013442
2-Butanone (MEK)	U		0.00524	0.0112	1	08/25/2017 07:42	WG1013442
Methylene Chloride	U		0.00112	0.00559	1	08/25/2017 07:42	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00210	0.0112	1	08/25/2017 07:42	WG1013442
Methyl tert-butyl ether	U		0.000237	0.00112	1	08/25/2017 07:42	WG1013442
Naphthalene	U		0.00112	0.00559	1	08/25/2017 07:42	WG1013442
n-Propylbenzene	U		0.000230	0.00112	1	08/25/2017 07:42	WG1013442
Styrene	U		0.000262	0.00112	1	08/25/2017 07:42	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000295	0.00112	1	08/25/2017 07:42	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000408	0.00112	1	08/25/2017 07:42	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000408	0.00112	1	08/25/2017 07:42	WG1013442
Tetrachloroethene	0.00166		0.000309	0.00112	1	08/25/2017 07:42	WG1013442
Toluene	U		0.000486	0.00559	1	08/25/2017 07:42	WG1013442
1,2,3-Trichlorobenzene	U		0.000342	0.00112	1	08/25/2017 07:42	WG1013442
1,2,4-Trichlorobenzene	U		0.000434	0.00112	1	08/25/2017 07:42	WG1013442
1,1,1-Trichloroethane	U		0.000320	0.00112	1	08/25/2017 07:42	WG1013442
1,1,2-Trichloroethane	U		0.000310	0.00112	1	08/25/2017 07:42	WG1013442
Trichloroethene	U		0.000312	0.00112	1	08/25/2017 07:42	WG1013442
Trichlorofluoromethane	U	J3	0.000427	0.00559	1	08/25/2017 07:42	WG1013442
1,2,3-Trichloropropane	U		0.000829	0.00280	1	08/25/2017 07:42	WG1013442
1,2,4-Trimethylbenzene	U		0.000236	0.00112	1	08/25/2017 07:42	WG1013442
1,2,3-Trimethylbenzene	U		0.000321	0.00112	1	08/25/2017 07:42	WG1013442
1,3,5-Trimethylbenzene	U		0.000298	0.00112	1	08/25/2017 07:42	WG1013442
Vinyl acetate	U		0.00267	0.0112	1	08/25/2017 07:42	WG1013442
Vinyl chloride	0.00377	J3 J4	0.000326	0.00112	1	08/25/2017 07:42	WG1013442
Xylenes, Total	U		0.000781	0.00336	1	08/25/2017 07:42	WG1013442
(S) Toluene-d8	95.4			80.0-120		08/25/2017 07:42	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 07:42	WG1013442
(S) 4-Bromofluorobenzene	94.4			64.0-132		08/25/2017 07:42	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3245132-1 08/28/17 12:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000500			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L931390-04 Original Sample (OS) • Duplicate (DUP)

(OS) L931390-04 08/28/17 12:37 • (DUP) R3245132-3 08/28/17 12:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	89.8	89.8	1	0.00740		5

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3245132-2 08/28/17 12:37

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3245144-1 08/28/17 16:45

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000600			

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

L931390-05 Original Sample (OS) • Duplicate (DUP)

(OS) L931390-05 08/28/17 16:45 • (DUP) R3245144-3 08/28/17 16:45

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	86.6	81.6	1	6.01	<u>J3</u>	5

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3245144-2 08/28/17 16:45

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.7	99.3	85.0-115	



Method Blank (MB)

(MB) R3245287-3 08/27/17 12:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3245287-1 08/27/17 11:08 • (LCSD) R3245287-2 08/27/17 11:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5960	5580	108	101	72.0-134			6.58	20
(S) a,a,a-Trifluorotoluene(FID)				108	106	77.0-122				

L931153-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L931153-01 08/27/17 13:54 • (MS) R3245287-4 08/27/17 12:47 • (MSD) R3245287-5 08/27/17 13:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	255	5740	5790	99.8	101	1	23.0-159			0.870	20
(S) a,a,a-Trifluorotoluene(FID)					104	103		77.0-122				



Method Blank (MB)

(MB) R3245309-3 08/26/17 22:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.3			77.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3245309-1 08/26/17 21:32 • (LCSD) R3245309-2 08/26/17 21:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.92	5.97	108	108	70.0-133			0.840	20
(S) a,a,a-Trifluorotoluene(FID)				106	105	77.0-120				

L931390-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L931390-07 08/27/17 07:04 • (MS) R3245309-4 08/27/17 07:27 • (MSD) R3245309-5 08/27/17 07:49

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.90	U	69.8	71.0	47.3	48.1	25	10.0-146			1.70	30
(S) a,a,a-Trifluorotoluene(FID)					100	101		77.0-120				

Sample Narrative:

OS: Elevated RL. Reported from MEOH vial. Bisulfates used in previous runs.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3244456-2 08/24/17 23:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromochloromethane	U		0.000390	0.00500
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon disulfide	U		0.000221	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
trans-1,4-Dichloro-2-butene	U		0.000778	0.00250
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3244456-2 08/24/17 23:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
2-Hexanone	U		0.00137	0.0100
n-Hexane	U		0.000290	0.0100
Iodomethane	U		0.00253	0.0100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl acetate	U		0.00239	0.0100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	96.7			74.0-131
(S) 4-Bromofluorobenzene	95.5			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3244456-1 08/24/17 22:49 • (LCSD) R3244456-3 08/25/17 00:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.117	0.141	93.3	113	11.0-160			19.2	23
Acrylonitrile	0.125	0.132	0.135	106	108	61.0-143			1.58	20
Benzene	0.0250	0.0238	0.0258	95.1	103	71.0-124			8.02	20
Bromobenzene	0.0250	0.0239	0.0249	95.5	99.4	78.0-120			4.05	20
Bromodichloromethane	0.0250	0.0243	0.0247	97.1	98.9	75.0-120			1.86	20
Bromochloromethane	0.0250	0.0252	0.0259	101	103	80.0-121			2.60	20
Bromoform	0.0250	0.0249	0.0251	99.6	100	65.0-133			0.680	20
Bromomethane	0.0250	0.0223	0.0314	89.1	126	26.0-160		J3	34.0	20
n-Butylbenzene	0.0250	0.0246	0.0267	98.5	107	73.0-126			8.05	20
sec-Butylbenzene	0.0250	0.0245	0.0258	97.8	103	75.0-121			5.45	20
tert-Butylbenzene	0.0250	0.0248	0.0253	99.1	101	74.0-122			2.10	20
Carbon disulfide	0.0250	0.0206	0.0285	82.2	114	53.0-130		J3	32.4	20
Carbon tetrachloride	0.0250	0.0236	0.0248	94.3	99.4	66.0-123			5.18	20
Chlorobenzene	0.0250	0.0255	0.0269	102	108	79.0-121			5.41	20
Chlorodibromomethane	0.0250	0.0249	0.0254	99.4	102	74.0-128			2.13	20
Chloroethane	0.0250	0.0225	0.0303	89.8	121	51.0-147		J3	29.8	20
Chloroform	0.0250	0.0240	0.0252	96.2	101	73.0-123			4.61	20
Chloromethane	0.0250	0.0153	0.0282	61.3	113	51.0-138		J3	59.1	20
2-Chlorotoluene	0.0250	0.0245	0.0256	97.9	102	72.0-124			4.51	20
4-Chlorotoluene	0.0250	0.0234	0.0251	93.8	100	78.0-120			6.77	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0250	0.0255	100	102	65.0-126			1.83	20
1,2-Dibromoethane	0.0250	0.0251	0.0263	100	105	78.0-122			4.55	20
Dibromomethane	0.0250	0.0248	0.0255	99.3	102	79.0-120			2.81	20
1,2-Dichlorobenzene	0.0250	0.0261	0.0269	105	108	80.0-120			2.93	20
1,3-Dichlorobenzene	0.0250	0.0260	0.0270	104	108	72.0-123			3.85	20
1,4-Dichlorobenzene	0.0250	0.0245	0.0262	97.9	105	77.0-120			6.77	20
trans-1,4-Dichloro-2-butene	0.0250	0.0269	0.0278	108	111	68.0-126			3.18	20
Dichlorodifluoromethane	0.0250	0.0104	0.0315	41.6	126	49.0-155	J4	J3	101	20
1,1-Dichloroethane	0.0250	0.0241	0.0265	96.3	106	70.0-128			9.57	20
1,2-Dichloroethane	0.0250	0.0254	0.0261	102	105	69.0-128			2.81	20
1,1-Dichloroethene	0.0250	0.0227	0.0266	90.7	106	63.0-131			15.9	20
cis-1,2-Dichloroethene	0.0250	0.0227	0.0242	90.6	96.8	74.0-123			6.59	20
trans-1,2-Dichloroethene	0.0250	0.0226	0.0247	90.5	98.9	72.0-122			8.89	20
1,2-Dichloropropane	0.0250	0.0252	0.0260	101	104	75.0-126			2.95	20
1,1-Dichloropropene	0.0250	0.0233	0.0255	93.1	102	72.0-130			9.07	20
1,3-Dichloropropane	0.0250	0.0264	0.0277	106	111	80.0-121			4.84	20
cis-1,3-Dichloropropene	0.0250	0.0251	0.0265	100	106	80.0-125			5.55	20
trans-1,3-Dichloropropene	0.0250	0.0269	0.0278	107	111	75.0-129			3.51	20
2,2-Dichloropropane	0.0250	0.0233	0.0253	93.2	101	60.0-129			8.09	20
Di-isopropyl ether	0.0250	0.0244	0.0249	97.8	99.6	62.0-133			1.80	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3244456-1 08/24/17 22:49 • (LCSD) R3244456-3 08/25/17 00:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0243	0.0254	97.0	102	77.0-120			4.75	20
Hexachloro-1,3-butadiene	0.0250	0.0249	0.0269	99.4	108	68.0-128			7.96	20
2-Hexanone	0.125	0.132	0.150	105	120	61.0-143			12.8	20
n-Hexane	0.0250	0.0196	0.0242	78.6	96.6	57.0-125		J3	20.6	20
Iodomethane	0.125	0.126	0.147	101	118	67.0-132			15.9	20
Isopropylbenzene	0.0250	0.0235	0.0245	94.2	98.1	75.0-120			4.10	20
p-Isopropyltoluene	0.0250	0.0244	0.0258	97.7	103	74.0-125			5.38	20
2-Butanone (MEK)	0.125	0.128	0.147	103	117	37.0-159			13.4	20
Methylene Chloride	0.0250	0.0228	0.0256	91.2	102	67.0-123			11.6	20
4-Methyl-2-pentanone (MIBK)	0.125	0.131	0.138	105	110	60.0-144			4.93	20
Methyl tert-butyl ether	0.0250	0.0251	0.0252	100	101	66.0-125			0.380	20
Naphthalene	0.0250	0.0253	0.0249	101	99.6	64.0-125			1.52	20
n-Propylbenzene	0.0250	0.0235	0.0254	94.1	101	78.0-120			7.52	20
Styrene	0.0250	0.0235	0.0247	94.1	98.6	78.0-124			4.71	20
1,1,1,2-Tetrachloroethane	0.0250	0.0243	0.0253	97.1	101	74.0-124			4.14	20
1,1,2,2-Tetrachloroethane	0.0250	0.0245	0.0249	98.1	99.7	73.0-120			1.61	20
Tetrachloroethene	0.0250	0.0244	0.0270	97.8	108	70.0-127			10.1	20
Toluene	0.0250	0.0231	0.0248	92.3	99.4	77.0-120			7.37	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0250	0.0289	100	116	64.0-135			14.3	20
1,2,3-Trichlorobenzene	0.0250	0.0271	0.0277	109	111	68.0-126			2.13	20
1,2,4-Trichlorobenzene	0.0250	0.0264	0.0278	106	111	70.0-127			5.28	20
1,1,1-Trichloroethane	0.0250	0.0226	0.0237	90.3	94.7	69.0-125			4.72	20
1,1,2-Trichloroethane	0.0250	0.0247	0.0251	98.9	100	78.0-120			1.42	20
Trichloroethene	0.0250	0.0246	0.0262	98.3	105	79.0-120			6.49	20
Trichlorofluoromethane	0.0250	0.0270	0.0339	108	136	59.0-136		J3	22.8	20
1,2,3-Trichloropropane	0.0250	0.0242	0.0253	96.6	101	73.0-124			4.45	20
1,2,3-Trimethylbenzene	0.0250	0.0239	0.0249	95.7	99.4	76.0-120			3.85	20
1,2,4-Trimethylbenzene	0.0250	0.0221	0.0236	88.5	94.2	75.0-120			6.26	20
1,3,5-Trimethylbenzene	0.0250	0.0236	0.0250	94.5	99.9	75.0-120			5.59	20
Vinyl acetate	0.125	0.120	0.141	95.7	113	58.0-156			16.3	20
Vinyl chloride	0.0250	0.0208	0.0341	83.1	136	63.0-134		J3 J4	48.5	20
Xylenes, Total	0.0750	0.0700	0.0743	93.3	99.1	77.0-120			5.96	20
(S) Toluene-d8				102	104	80.0-120				
(S) Dibromofluoromethane				96.8	96.5	74.0-131				
(S) 4-Bromofluorobenzene				91.5	93.3	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L931390-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L931390-10 08/25/17 06:19 • (MS) R3244456-4 08/25/17 08:02 • (MSD) R3244456-5 08/25/17 08:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.135	U	0.0827	0.0911	61.3	67.5	1	10.0-160			9.63	36
Acrylonitrile	0.135	U	0.150	0.166	111	123	1	14.0-160			10.0	33
Benzene	0.0270	U	0.0211	0.0245	78.3	90.7	1	13.0-146			14.6	27
Bromobenzene	0.0270	U	0.0161	0.0191	59.5	70.7	1	10.0-149			17.2	33
Bromodichloromethane	0.0270	U	0.0207	0.0235	76.7	87.1	1	15.0-142			12.7	28
Bromochloromethane	0.0270	U	0.0228	0.0247	84.5	91.6	1	24.0-146			8.01	27
Bromoform	0.0270	U	0.0215	0.0257	79.8	95.4	1	10.0-147			17.8	31
Bromomethane	0.0270	U	0.0255	0.0288	94.6	107	1	10.0-160			12.3	32
n-Butylbenzene	0.0270	U	0.0134	0.0140	49.5	51.9	1	10.0-154			4.76	37
sec-Butylbenzene	0.0270	U	0.0149	0.0159	55.2	59.0	1	10.0-151			6.63	36
tert-Butylbenzene	0.0270	U	0.0159	0.0176	59.1	65.2	1	10.0-152			9.81	35
Carbon disulfide	0.0270	0.000803	0.0225	0.0247	80.5	88.5	1	10.0-141			9.17	30
Carbon tetrachloride	0.0270	U	0.0204	0.0212	75.8	78.7	1	13.0-140			3.75	30
Chlorobenzene	0.0270	U	0.0178	0.0201	66.1	74.4	1	10.0-149			11.8	31
Chlorodibromomethane	0.0270	U	0.0204	0.0226	75.6	83.9	1	12.0-147			10.5	29
Chloroethane	0.0270	U	0.0249	0.0278	92.3	103	1	10.0-159			11.1	33
Chloroform	0.0270	U	0.0213	0.0230	79.1	85.5	1	18.0-148			7.75	28
Chloromethane	0.0270	U	0.0244	0.0282	90.5	104	1	10.0-146			14.4	29
2-Chlorotoluene	0.0270	U	0.0158	0.0185	58.7	68.6	1	10.0-151			15.5	35
4-Chlorotoluene	0.0270	U	0.0146	0.0167	54.3	61.9	1	10.0-150			13.1	35
1,2-Dibromo-3-Chloropropane	0.0270	U	0.0263	0.0283	97.4	105	1	10.0-149			7.58	34
1,2-Dibromoethane	0.0270	U	0.0222	0.0247	82.2	91.6	1	14.0-145			10.8	28
Dibromomethane	0.0270	U	0.0232	0.0251	86.2	93.1	1	18.0-144			7.70	27
1,2-Dichlorobenzene	0.0270	U	0.0158	0.0173	58.6	64.1	1	10.0-153			8.98	34
1,3-Dichlorobenzene	0.0270	U	0.0146	0.0165	54.1	61.1	1	10.0-150			12.1	35
1,4-Dichlorobenzene	0.0270	U	0.0138	0.0156	51.2	57.8	1	10.0-148			12.2	34
trans-1,4-Dichloro-2-butene	0.0270	U	0.0246	0.0298	91.3	110	1	10.0-160			19.0	40
Dichlorodifluoromethane	0.0270	U	0.0271	0.0297	101	110	1	10.0-160			9.12	30
1,1-Dichloroethane	0.0270	U	0.0225	0.0249	83.3	92.4	1	19.0-148			10.4	28
1,2-Dichloroethane	0.0270	U	0.0236	0.0278	87.6	103	1	17.0-147			16.3	27
1,1-Dichloroethene	0.0270	U	0.0212	0.0227	78.4	84.3	1	10.0-150			7.16	31
cis-1,2-Dichloroethene	0.0270	0.0115	0.0259	0.0287	53.6	63.9	1	16.0-145			10.2	28
trans-1,2-Dichloroethene	0.0270	U	0.0190	0.0210	70.5	78.0	1	11.0-142			10.0	29
1,2-Dichloropropane	0.0270	U	0.0225	0.0256	83.4	94.8	1	17.0-148			12.8	28
1,1-Dichloropropene	0.0270	U	0.0199	0.0225	73.6	83.4	1	10.0-150			12.4	30
1,3-Dichloropropane	0.0270	U	0.0231	0.0267	85.7	99.0	1	16.0-148			14.4	27
cis-1,3-Dichloropropene	0.0270	U	0.0189	0.0216	70.1	80.1	1	13.0-150			13.2	28
trans-1,3-Dichloropropene	0.0270	U	0.0204	0.0234	75.5	86.9	1	10.0-152			14.0	29
2,2-Dichloropropane	0.0270	U	0.0200	0.0228	74.3	84.7	1	16.0-143			13.1	30

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L931390-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L931390-10 08/25/17 06:19 • (MS) R3244456-4 08/25/17 08:02 • (MSD) R3244456-5 08/25/17 08:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	0.0270	U	0.0220	0.0249	81.5	92.5	1	16.0-149			12.6	28
Ethylbenzene	0.0270	U	0.0171	0.0188	63.5	69.5	1	10.0-147			9.08	31
Hexachloro-1,3-butadiene	0.0270	U	0.0128	0.0120	47.4	44.5	1	10.0-154			6.41	40
2-Hexanone	0.135	U	0.139	0.151	103	112	1	12.0-158			8.36	30
n-Hexane	0.0270	0.00741	0.0172	0.0208	36.4	49.5	1	10.0-140			18.7	34
Iodomethane	0.135	U	0.119	0.131	88.6	97.4	1	10.0-157			9.50	34
Isopropylbenzene	0.0270	U	0.0163	0.0185	60.4	68.5	1	10.0-147			12.6	33
p-Isopropyltoluene	0.0270	U	0.0147	0.0157	54.4	58.0	1	10.0-156			6.51	37
2-Butanone (MEK)	0.135	U	0.136	0.153	101	113	1	10.0-160			11.8	33
Methylene Chloride	0.0270	U	0.0209	0.0227	77.5	84.1	1	16.0-139			8.15	29
4-Methyl-2-pentanone (MIBK)	0.135	U	0.161	0.178	120	132	1	12.0-160			9.82	32
Methyl tert-butyl ether	0.0270	U	0.0246	0.0271	91.1	100	1	21.0-145			9.76	29
Naphthalene	0.0270	U	0.0151	0.0178	56.0	66.1	1	10.0-153			16.5	36
n-Propylbenzene	0.0270	U	0.0153	0.0176	56.7	65.4	1	10.0-151			14.3	34
Styrene	0.0270	U	0.0143	0.0169	53.1	62.7	1	10.0-155			16.6	34
1,1,1,2-Tetrachloroethane	0.0270	U	0.0183	0.0201	67.8	74.5	1	10.0-147			9.53	30
1,1,2,2-Tetrachloroethane	0.0270	U	0.0245	0.0285	90.8	106	1	10.0-155			15.3	31
Tetrachloroethene	0.0270	U	0.0186	0.0202	68.9	74.8	1	10.0-144			8.09	32
Toluene	0.0270	U	0.0177	0.0201	65.7	74.4	1	10.0-144			12.4	28
1,1,2-Trichlorotrifluoroethane	0.0270	U	0.0229	0.0242	85.0	89.6	1	10.0-153			5.22	33
1,2,3-Trichlorobenzene	0.0270	U	0.0120	0.0129	44.5	47.9	1	10.0-153			7.34	40
1,2,4-Trichlorobenzene	0.0270	U	0.0109	0.0119	40.5	44.3	1	10.0-156			8.93	40
1,1,1-Trichloroethane	0.0270	U	0.0196	0.0221	72.7	81.9	1	18.0-145			12.0	29
1,1,2-Trichloroethane	0.0270	U	0.0222	0.0243	82.1	90.1	1	12.0-151			9.24	28
Trichloroethene	0.0270	U	0.0195	0.0220	72.4	81.7	1	11.0-148			12.0	29
Trichlorofluoromethane	0.0270	U	0.0269	0.0304	99.7	113	1	10.0-157			12.4	34
1,2,3-Trichloropropane	0.0270	U	0.0251	0.0286	92.9	106	1	10.0-154			13.4	32
1,2,3-Trimethylbenzene	0.0270	U	0.0157	0.0176	58.3	65.4	1	10.0-150			11.5	33
1,2,4-Trimethylbenzene	0.0270	U	0.0141	0.0158	52.1	58.6	1	10.0-151			11.7	34
1,3,5-Trimethylbenzene	0.0270	U	0.0151	0.0167	55.9	62.0	1	10.0-150			10.4	33
Vinyl acetate	0.135	U	0.0868	0.0993	64.4	73.6	1	10.0-160			13.4	40
Vinyl chloride	0.0270	U	0.0286	0.0322	106	119	1	10.0-150			11.8	29
Xylenes, Total	0.0809	U	0.0487	0.0539	60.1	66.7	1	10.0-150			10.3	31
(S) Toluene-d8					96.5	97.0		80.0-120				
(S) Dibromofluoromethane					102	100		74.0-131				
(S) 4-Bromofluorobenzene					92.0	97.1		64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3245340-3 08/25/17 10:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3245340-3 08/25/17 10:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.719	U	0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	0.170	U	0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	106			76.0-123
(S) 4-Bromofluorobenzene	99.6			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3245340-1 08/25/17 09:37 • (LCSD) R3245340-2 08/25/17 09:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	119	103	95.0	82.2	10.0-160			14.4	23
Acrylonitrile	125	143	133	115	106	60.0-142			7.85	20
Benzene	25.0	26.7	27.0	107	108	69.0-123			0.920	20
Bromobenzene	25.0	26.5	26.3	106	105	79.0-120			0.700	20
Bromodichloromethane	25.0	26.9	26.7	107	107	76.0-120			0.610	20
Bromochloromethane	25.0	26.2	26.4	105	106	76.0-122			0.940	20
Bromoform	25.0	27.8	27.1	111	108	67.0-132			2.81	20
Bromomethane	25.0	26.6	26.1	106	104	18.0-160			1.97	20
n-Butylbenzene	25.0	27.7	28.2	111	113	72.0-126			1.91	20
sec-Butylbenzene	25.0	27.1	27.3	109	109	74.0-121			0.680	20
tert-Butylbenzene	25.0	26.6	27.0	106	108	75.0-122			1.63	20
Carbon disulfide	25.0	26.7	27.7	107	111	55.0-127			3.82	20
Carbon tetrachloride	25.0	25.4	26.5	102	106	63.0-122			4.32	20
Chlorobenzene	25.0	27.3	26.3	109	105	79.0-121			3.51	20
Chlorodibromomethane	25.0	26.9	26.1	108	104	75.0-125			3.15	20
Chloroethane	25.0	28.6	28.5	114	114	47.0-152			0.260	20
Chloroform	25.0	26.2	26.9	105	108	72.0-121			2.58	20
Chloromethane	25.0	26.0	27.5	104	110	48.0-139			5.75	20
2-Chlorotoluene	25.0	26.7	26.8	107	107	74.0-122			0.550	20
4-Chlorotoluene	25.0	27.1	26.8	108	107	79.0-120			0.950	20
1,2-Dibromo-3-Chloropropane	25.0	27.6	26.8	111	107	64.0-127			3.23	20
1,2-Dibromoethane	25.0	27.4	26.3	110	105	77.0-123			4.11	20
Dibromomethane	25.0	27.7	27.5	111	110	78.0-120			0.770	20
1,2-Dichlorobenzene	25.0	27.4	27.3	110	109	80.0-120			0.530	20
1,3-Dichlorobenzene	25.0	27.4	27.1	110	108	72.0-123			1.14	20
1,4-Dichlorobenzene	25.0	27.4	27.4	110	110	77.0-120			0.0200	20
Dichlorodifluoromethane	25.0	29.7	30.7	119	123	49.0-155			3.26	20
1,1-Dichloroethane	25.0	26.7	27.6	107	110	70.0-126			3.28	20
1,2-Dichloroethane	25.0	27.7	27.3	111	109	67.0-126			1.45	20
1,1-Dichloroethene	25.0	26.9	28.2	108	113	64.0-129			4.73	20
cis-1,2-Dichloroethene	25.0	26.1	26.6	104	106	73.0-120			1.89	20
trans-1,2-Dichloroethene	25.0	26.2	27.3	105	109	71.0-121			4.29	20
1,2-Dichloropropane	25.0	28.3	27.4	113	110	75.0-125			3.13	20
1,1-Dichloropropene	25.0	27.4	28.2	110	113	71.0-129			2.89	20
1,3-Dichloropropane	25.0	28.2	26.5	113	106	80.0-121			5.98	20
cis-1,3-Dichloropropene	25.0	27.4	26.9	110	108	79.0-123			1.86	20
trans-1,3-Dichloropropene	25.0	28.3	26.9	113	108	74.0-127			5.15	20
trans-1,4-Dichloro-2-butene	25.0	30.6	29.3	122	117	55.0-134			4.22	20
2,2-Dichloropropane	25.0	28.0	28.1	112	113	60.0-125			0.580	20
Di-isopropyl ether	25.0	27.0	27.1	108	108	59.0-133			0.260	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3245340-1 08/25/17 09:37 • (LCSD) R3245340-2 08/25/17 09:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	26.4	26.0	106	104	77.0-120			1.68	20
Hexachloro-1,3-butadiene	25.0	23.9	25.6	95.7	102	64.0-131			6.72	20
2-Hexanone	125	139	134	111	107	58.0-147			3.68	20
n-Hexane	25.0	27.8	28.3	111	113	56.0-124			1.94	20
Iodomethane	125	128	132	102	106	57.0-140			3.43	20
Isopropylbenzene	25.0	27.2	27.4	109	110	75.0-120			0.870	20
p-Isopropyltoluene	25.0	26.9	27.2	107	109	74.0-126			1.04	20
2-Butanone (MEK)	125	155	142	124	113	37.0-158			8.60	20
Methylene Chloride	25.0	25.3	25.5	101	102	66.0-121			0.490	20
4-Methyl-2-pentanone (MIBK)	125	141	135	113	108	59.0-143			4.06	20
Methyl tert-butyl ether	25.0	27.3	27.2	109	109	64.0-123			0.570	20
Naphthalene	25.0	27.8	26.9	111	107	62.0-128			3.25	20
n-Propylbenzene	25.0	27.3	27.4	109	109	79.0-120			0.330	20
Styrene	25.0	28.0	27.1	112	108	78.0-124			3.10	20
1,1,1,2-Tetrachloroethane	25.0	26.4	25.8	106	103	75.0-122			2.30	20
1,1,2,2-Tetrachloroethane	25.0	27.0	26.1	108	104	71.0-122			3.27	20
1,1,2-Trichlorotrifluoroethane	25.0	27.7	29.0	111	116	61.0-136			4.34	20
Tetrachloroethene	25.0	26.6	25.8	107	103	70.0-127			3.32	20
Toluene	25.0	26.0	25.5	104	102	77.0-120			1.98	20
1,2,3-Trichlorobenzene	25.0	28.0	27.0	112	108	61.0-133			3.87	20
1,2,4-Trichlorobenzene	25.0	27.2	26.8	109	107	69.0-129			1.78	20
1,1,1-Trichloroethane	25.0	26.5	27.5	106	110	68.0-122			3.52	20
1,1,2-Trichloroethane	25.0	27.4	25.8	110	103	78.0-120			6.00	20
Trichloroethene	25.0	26.7	27.0	107	108	78.0-120			1.25	20
Trichlorofluoromethane	25.0	26.1	26.2	104	105	56.0-137			0.140	20
1,2,3-Trichloropropane	25.0	27.9	26.7	112	107	72.0-124			4.41	20
1,2,4-Trimethylbenzene	25.0	26.4	26.6	106	106	75.0-120			0.600	20
1,2,3-Trimethylbenzene	25.0	27.1	27.0	109	108	75.0-120			0.490	20
1,3,5-Trimethylbenzene	25.0	26.4	26.5	106	106	75.0-120			0.580	20
Vinyl acetate	125	167	161	134	129	46.0-160			3.93	20
Vinyl chloride	25.0	27.4	28.7	110	115	64.0-133			4.71	20
Xylenes, Total	75.0	80.7	79.2	108	106	77.0-120			1.88	20
(S) Toluene-d8				106	104	80.0-120				
(S) Dibromofluoromethane				100	101	76.0-123				
(S) 4-Bromofluorobenzene				102	101	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL (dry)	Reported Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

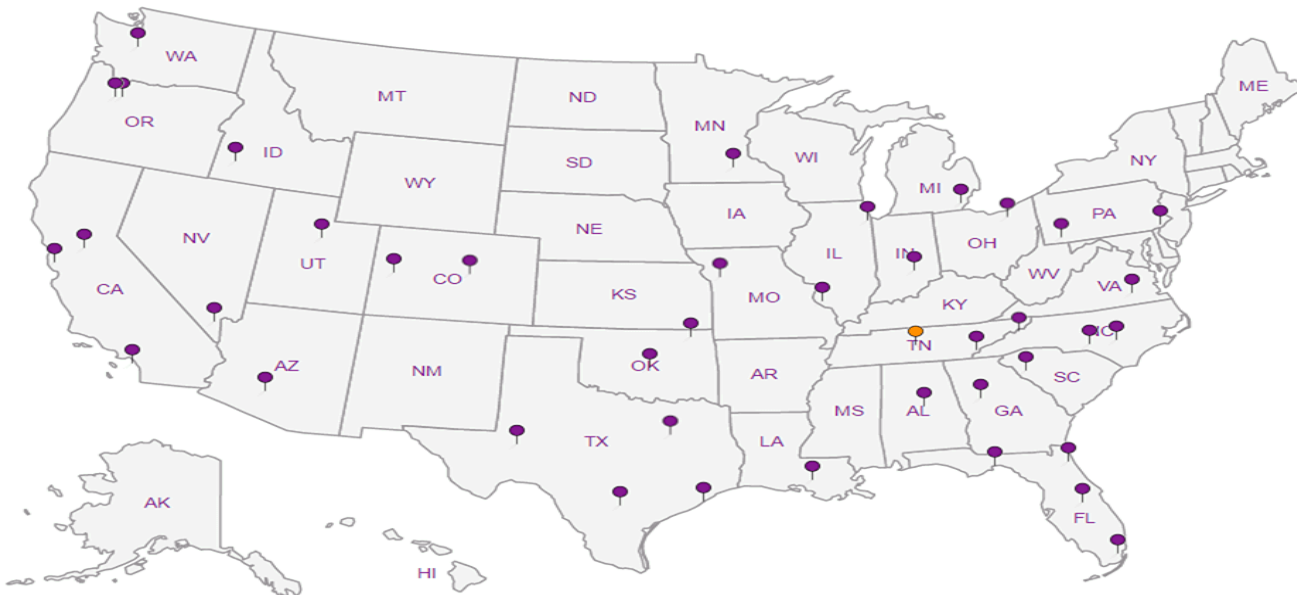
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhdeman@pesenv.com

Project
Description: **American Linen Project**

City/State
Collected: **SEATTLE, WA**

Phone: 206-529-3980
Fax: 206-529-3985

Client Project #
1413.001.02.602

Lab Project #
PESENVSWA-ALP

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
1413.001.02.602

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Immediately
Packed on Ice **N** **Y** **X**

Same Day ___ Five Day ___
Next Day ___ 5 Day (Rad Only) ___
Two Day ___ 10 Day (Rad Only) ___
Three Day ___

Date Results Needed

No. of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative	Remarks	Sample # (lab only)
MW B-211-120	GRAB	SS	120	8/21/17	1000	5	NWTPHGX 2ozClr-NoPres		-01
MW B-210-6		SS	6		1515	5	NWTPHGX 40mlAmb HCl		-02
MW B-210-15		SS	15		1530	5	TS 4ozClr-NoPres		-03
MW B-210-20		SS	20		1535	5	V8260C 40ml/NaHSO4/Syr/MeOH		-04
MW B-210-35		SS	35		1605	5	V8260C 40mlAmb-HCl		-05
MW B-210-46		SS	46		1640	5			-06
MW B-210-60		SS	60	8/22/17	0745	5			-07
MW B-211-110-W	GRAB	GW	110	8/21/17	0835	6		HOLD	-08
MW B-211-120-W		GW	120		1100	6			-09
MW TRIP BLANK-082217	NA	GW	NA	8/31/17	NA	1			

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:
 UPS FedEx Courier

Tracking # **7474 0921 0686**

pH ___ Temp ___
Flow ___ Other ___

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headpace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature) SHANNON MCKERNAN	Date: 8/22/17	Time: 1620	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 1 X TB HCL / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 11.5 °C Bottles Received: 68
Relinquished by: (Signature)	Date:	Time:	Received for Lab by: (Signature) Shannon	Date: 8/23/17 Time: 0845

8-140 Condition: **NCF 1**

Chain of Custody Page ___ of ___



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **931390**
C209
Acctnum: **PESENVSWA**
Template: **T126586**
Prelogin: **P613274**
TSR: **110 - Brian Ford**
PB: **8/10/17**
Shipped Via: **FedEx Ground**

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Report to:
Bill Haldeman

Email To: bhaldeman@pesenv.com

Project
Description: **American Linen Project**

City/State
Collected: **SEATTLE, WA**

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project #
1413.001.02.602

Lab Project #
PESENVSWA-ALP

Collected by (print):
SHANNON MCKERNAN

Site/Facility ID #
1413.001.02.602

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
Date Results Needed

Immediately Packed on Ice N Y

No. of Cntrs

Analysis / Container / Preservative



A - E - S - C - I - E - N - C - E - S
a subsidiary of *[Logo]*

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-3859



L# **931390**

Table #

Acctnum: **PESENVSWA**

Template: **T126586**

Prelogin: **P613274**

TSR: **110 - Brian Ford**

PB: **8/10/17 MB**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 2ozClr-NoPres	NWTPHGX 40miAmb HCl	TS 4ozClr-NoPres	V8260C 40ml/NaHSO4/Syr/MeOH	V8260C 40miAmb-HCl	Remarks	Sample # (lab only)
MW- B-210-70	GRAB	SS	70	8/22/17	0910	5x	X	X	X	X			-10
MW- B-210-80	↓	SS	80	↓	1100	5x	X	X	X	X			-11
MW- B-900-20	↓	SS	20	↓	1300	5x	X	X	X	X			-12
MW- 132-20	↓	SS	20	↓	1410	5x	X	X	X	X			-13
MW- 132-35	↓	SS	35	↓	1505	5x	X	X	X	X			-14
MW-		SS				4			X	X			
MW-		SS				4			X	X			
MW-		SS				4			X	X			
MW-		SS				4			X	X			
MW-		SS				4			X	X			

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
Samples returned via:
 UPS FedEx Courier

pH _____ Temp _____
Flow _____ Other _____
Tracking # **7474 0921 0686**

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature)
[Signature]
Date: **8/22/17**
Time: **1420**

Date: _____
Time: _____

Received by: (Signature)
[Signature]
Received for lab by: (Signature)
[Signature]

Trip Blank Received: Yes No
HCL / MeOH TBR
Temp ^{MW} °C
1.6 50 68

If preservation required by Login: Date/Time
Hold:
Date: **8/23/17** Time: **0845**
Condition: **NCF 1/2x**

MEMORANDUM

TO: Project File **DATE:** September 19, 2017
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: Former American Linen Supply Site, Seattle WA
PROJECT #: 1413.001.02.604
TASK: August 21-22, 2017 – Soil and Groundwater Samples
LAB: ESC Lab ID L931390

Twelve (12) soil samples, two (2) groundwater samples, and a trip blank sample were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington, on August 21-22, 2017. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. **One groundwater sample was placed on hold.** Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C;
- Total petroleum hydrocarbons as gasoline range organics (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- Total Solids by Standard Methods 2540 G-2011.

The results are reported in ESC Sample Delivery Group (SDG) L931390. The quarterly monitoring round occurred between August and September of 2017. Associated sample data are reported in **X#** ESC SDGs (L929881, L929901, L930317, L930670, L930884, L931390, L931655, L932059, L932260, L932611, L932876, L933267, L933455, L934130, L934673, L934916, **and**). The quality assurance review of the sample data associated with SDG L931390 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data along with ESC control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017) and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

Samples were collected on August 21-22, 2017 in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice and shipped overnight by courier to ESC. The laboratory reported that the cooler and samples were received at 1.6 degrees Centigrade (°C) and below the recommended temperature preservation of 6°C. The laboratory indicated that the samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for soils and preserved water from the date of sample collection. All holding time criteria were met.

NWTPH-Gx Method:

All samples were analyzed within the WA State recommended holding time of fourteen days for soils and preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (Total Solids):

Samples were analyzed within the USEPA recommended holding time of 7 days for total solids. All holding time criteria were met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following:

- *USEPA Method 8260C for soils:* Continuing calibration verification (CCV) issues were noted by ESC for chloromethane and dichlorodifluoromethane associated with analytical batch WG1013442 (analyzed on August 24, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated sample chloromethane and dichlorodifluoromethane results with laboratory qualified J0 results are estimated and qualified (UJ or J).**
- *USEPA Method 8260C for water:* Continuing calibration verification (CCV) issues were noted by ESC for 2-butanone (MEK) associated with analytical batch WG1013682 (analyzed on August 25, 2017). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Sample B-211-120 2-butanone (MEK) result with the laboratory qualified J0 result is estimated and qualified (J).**

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (VOCs) were not detected in the method blanks at or above the reported detection limits (RDLs) with the following exception:

- Analytical batch WG1013682 (waters): Low levels of naphthalene and 1,2,4-trimethylbenzene were detected in the method blank analyzed on August 25, 2017. Naphthalene and 1,2,4-trimethylbenzene were both detected at low levels in the associated sample B-211-120-W and in the Trip Blank. **Sample B-211-120-W results for naphthalene and 1,2,4-trimethylbenzene are qualified as not detected (U) due to blank contamination.**

NWTPH-Gx Method:

Laboratory method blanks were included with the analytical batch per method requirement. The target analyte (gasoline) was not detected in the method blanks at or above the RDL.

Total Solids by SM 2540 G 2011:

Laboratory method blanks were included with the analytical batch per method requirement. The target analytes (% solids) were not detected at significant levels in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C:

A trip blank was collected and analyzed. The target analytes (VOCs) were not detected in the method blanks at or above the RDL with the following exceptions:

- Analytical batch WG1013682 (waters): Low levels of acetone, benzene, naphthalene, and 1,2,4-trimethylbenzene were detected in the trip blank analyzed on August 25, 2017. For naphthalene, and 1,2,4-trimethylbenzene refer to the discussion under the method blank. Acetone was detected at low levels in soil sample B-210-6 and in groundwater sample B-211-120-W. Benzene was detected at a low level in groundwater sample B-211-120-W but no action is taken for benzene since 2X the blank detection (0.155 µg/L) is less than the detection in sample B-211-120-W (benzene was detected at 1.65 µg/L and RDL is 0.500 µg/L). **Acetone results in soil sample B-210-6 and in groundwater sample B-211-120-W are qualified as not detected (U) due to trip blank contamination.**

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicate (B-210-80 and B-900-20) results are comparable and less than 30% RPD.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results and/or matrix spike/matrix spike duplicate (MS/MSD) results for precision data.

NWTPH-Gx Method:

A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) and/or MS/MSD results for precision data.

Total Solids by SM 2540 G 2011:

Laboratory duplicate sample analyses were performed on client samples B-210-20 and B-210-35. The primary/duplicate RPDs for total solids analyses are within the laboratory control limit of 5% with one exception:

- Sample B-210-35 total solid RPD result was 6%. No action was taken other than to note that since the RPD criteria is fairly stringent at 5% and sample results are not significantly impacted by the percent solid results.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, LCS/LCSDs, MS/MSDs, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, LCS/LCSDs, MS/MSDs and the method blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

LCS/LCSD was analyzed by USEPA Method 8260C method. The LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils and waters with the following discussion:

- LCS/LCSD (Batch WG1013442 - soils) RPD values for compounds bromomethane, carbon disulfide, chloroethane, chloromethane, dichlorodifluoromethane, n-hexane, trichlorofluoromethane, and vinyl chloride are above laboratory acceptance criteria (20%) and qualified by the laboratory (J3). No action was taken on this basis as LCS/LCSD percent recovery results are recovered wide but are within control limits with two exceptions. Refer to the discussion below for additional information.
- LCS (Batch WG1013442 - soils) percent recovery for compound dichlorodifluoromethane is slightly below laboratory criteria and qualified by the laboratory (J4). All **associated sample results are estimated and qualified (UJ)**.

- LCSD (Batch WG1013442 - soils) percent recovery for compound vinyl chloride is slightly above laboratory criteria and qualified by the laboratory (J4). All **associated sample results with detections are estimated and qualified (J)**.

NWTPH-Gx Method:

LCS/LCSDs were analyzed by the NWTPH-Gx method. The LCS/LCSD %Rs and RPD for the control analyte (gasoline) are within the laboratory control criteria for water and soils.

Total Solids by SM 2540 G 2011:

The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed client sample B-210-70. MS/MSD % Rs and RPD were within the laboratory control criteria for soils. An MS/MSD was not performed on the water sample. Refer to LCS/LCSD results for accuracy and precision data.

NWTPH-Gx Method:

MS/MSD analyses were performed on a non-client sample and on sample B-210-60. MS/MSD % Rs and RPDs were within the laboratory control criteria for soils. Laboratory notes indicate that the results have an elevated RDL as they were reported from a vial preserved with methanol and that vials (for lower level gasoline analysis) preserved with bisulfates were all used up. No action was taken other than to note that this and associated quality control samples are within laboratory criteria.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following exceptions:

- ESC notes indicate that no stir bars remain for VOC analysis on samples B-210-15 and B-210-60 (Batch WG1013442). ESC was unable to analyze these samples at a lower level of analyses. No action was taken other than to note this.
- Laboratory notes indicate that the gasoline results for soil samples B-210-15 and B-210-60 have an elevated RDL as they were reported from a vial preserved with methanol and that vials for lower level analyses, preserved with bisulfates, were used in prior runs. No action was taken other than to note this.

Quantitation Limits

The RDLs used for this sample group were acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes.

Detections between the MDL and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on laboratory control limit acceptance criteria and criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2017); and
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2017).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data are judged to be acceptable for their intended use.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.1		1	08/28/2017 12:37	WG1013766

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0112	0.0561	1	08/25/2017 03:55	WG1013442
Acrylonitrile	U		0.00201	0.0112	1	08/25/2017 03:55	WG1013442
Benzene	U		0.000303	0.00112	1	08/25/2017 03:55	WG1013442
Bromobenzene	U		0.000319	0.00112	1	08/25/2017 03:55	WG1013442
Bromodichloromethane	U		0.000285	0.00112	1	08/25/2017 03:55	WG1013442
Bromochloromethane	U		0.000438	0.00561	1	08/25/2017 03:55	WG1013442
Bromoform	U		0.000476	0.00112	1	08/25/2017 03:55	WG1013442
Bromomethane	U	J3	0.00150	0.00561	1	08/25/2017 03:55	WG1013442
n-Butylbenzene	U		0.000289	0.00112	1	08/25/2017 03:55	WG1013442
sec-Butylbenzene	U		0.000226	0.00112	1	08/25/2017 03:55	WG1013442
tert-Butylbenzene	U		0.000231	0.00112	1	08/25/2017 03:55	WG1013442
Carbon disulfide	U	J3	0.000248	0.00112	1	08/25/2017 03:55	WG1013442
Carbon tetrachloride	U		0.000368	0.00112	1	08/25/2017 03:55	WG1013442
Chlorobenzene	U		0.000238	0.00112	1	08/25/2017 03:55	WG1013442
Chlorodibromomethane	U		0.000418	0.00112	1	08/25/2017 03:55	WG1013442
Chloroethane	U	J3	0.00106	0.00561	1	08/25/2017 03:55	WG1013442
Chloroform	U		0.000257	0.00561	1	08/25/2017 03:55	WG1013442
Chloromethane	U UJ	J0 J3	0.000421	0.00280	1	08/25/2017 03:55	WG1013442
2-Chlorotoluene	U		0.000338	0.00112	1	08/25/2017 03:55	WG1013442
4-Chlorotoluene	U		0.000269	0.00112	1	08/25/2017 03:55	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00118	0.00561	1	08/25/2017 03:55	WG1013442
1,2-Dibromoethane	U		0.000385	0.00112	1	08/25/2017 03:55	WG1013442
Dibromomethane	U		0.000429	0.00112	1	08/25/2017 03:55	WG1013442
1,2-Dichlorobenzene	U		0.000342	0.00112	1	08/25/2017 03:55	WG1013442
1,3-Dichlorobenzene	U		0.000268	0.00112	1	08/25/2017 03:55	WG1013442
1,4-Dichlorobenzene	U		0.000254	0.00112	1	08/25/2017 03:55	WG1013442
Dichlorodifluoromethane	U UJ	J0 J3 J4	0.000800	0.00561	1	08/25/2017 03:55	WG1013442
1,1-Dichloroethane	U		0.000223	0.00112	1	08/25/2017 03:55	WG1013442
1,2-Dichloroethane	U		0.000297	0.00112	1	08/25/2017 03:55	WG1013442
1,1-Dichloroethene	U		0.000340	0.00112	1	08/25/2017 03:55	WG1013442
cis-1,2-Dichloroethene	U		0.000264	0.00112	1	08/25/2017 03:55	WG1013442
trans-1,2-Dichloroethene	U		0.000296	0.00112	1	08/25/2017 03:55	WG1013442
1,2-Dichloropropane	U		0.000402	0.00112	1	08/25/2017 03:55	WG1013442
1,1-Dichloropropene	U		0.000356	0.00112	1	08/25/2017 03:55	WG1013442
1,3-Dichloropropane	U		0.000232	0.00112	1	08/25/2017 03:55	WG1013442
cis-1,3-Dichloropropene	U		0.000294	0.00112	1	08/25/2017 03:55	WG1013442
trans-1,3-Dichloropropene	U		0.000300	0.00112	1	08/25/2017 03:55	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000873	0.00280	1	08/25/2017 03:55	WG1013442
2,2-Dichloropropane	U		0.000313	0.00112	1	08/25/2017 03:55	WG1013442
Di-isopropyl ether	U		0.000278	0.00112	1	08/25/2017 03:55	WG1013442
Ethylbenzene	U		0.000333	0.00112	1	08/25/2017 03:55	WG1013442
Hexachloro-1,3-butadiene	U		0.000384	0.00112	1	08/25/2017 03:55	WG1013442
2-Hexanone	U		0.00154	0.0112	1	08/25/2017 03:55	WG1013442
n-Hexane	U	J3	0.000325	0.0112	1	08/25/2017 03:55	WG1013442
Iodomethane	U		0.00284	0.0112	1	08/25/2017 03:55	WG1013442
Isopropylbenzene	U		0.000273	0.00112	1	08/25/2017 03:55	WG1013442
p-Isopropyltoluene	U		0.000229	0.00112	1	08/25/2017 03:55	WG1013442
2-Butanone (MEK)	U		0.00525	0.0112	1	08/25/2017 03:55	WG1013442
Methylene Chloride	U		0.00112	0.00561	1	08/25/2017 03:55	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00211	0.0112	1	08/25/2017 03:55	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/2017



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000238	0.00112	1	08/25/2017 03:55	WG1013442
Naphthalene	U		0.00112	0.00561	1	08/25/2017 03:55	WG1013442
n-Propylbenzene	U		0.000231	0.00112	1	08/25/2017 03:55	WG1013442
Styrene	U		0.000263	0.00112	1	08/25/2017 03:55	WG1013442
1,1,1-Tetrachloroethane	U		0.000296	0.00112	1	08/25/2017 03:55	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000409	0.00112	1	08/25/2017 03:55	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000409	0.00112	1	08/25/2017 03:55	WG1013442
Tetrachloroethene	0.000628	J J	0.000310	0.00112	1	08/25/2017 03:55	WG1013442
Toluene	U		0.000487	0.00561	1	08/25/2017 03:55	WG1013442
1,2,3-Trichlorobenzene	U		0.000343	0.00112	1	08/25/2017 03:55	WG1013442
1,2,4-Trichlorobenzene	U		0.000435	0.00112	1	08/25/2017 03:55	WG1013442
1,1,1-Trichloroethane	U		0.000321	0.00112	1	08/25/2017 03:55	WG1013442
1,1,2-Trichloroethane	U		0.000311	0.00112	1	08/25/2017 03:55	WG1013442
Trichloroethene	0.000423	J J	0.000313	0.00112	1	08/25/2017 03:55	WG1013442
Trichlorofluoromethane	U	J3	0.000429	0.00561	1	08/25/2017 03:55	WG1013442
1,2,3-Trichloropropane	U		0.000831	0.00280	1	08/25/2017 03:55	WG1013442
1,2,4-Trimethylbenzene	U		0.000237	0.00112	1	08/25/2017 03:55	WG1013442
1,2,3-Trimethylbenzene	U		0.000322	0.00112	1	08/25/2017 03:55	WG1013442
1,3,5-Trimethylbenzene	U		0.000298	0.00112	1	08/25/2017 03:55	WG1013442
Vinyl acetate	U		0.00268	0.0112	1	08/25/2017 03:55	WG1013442
Vinyl chloride	U	J3 J4	0.000326	0.00112	1	08/25/2017 03:55	WG1013442
Xylenes, Total	U		0.000783	0.00337	1	08/25/2017 03:55	WG1013442
(S) Toluene-d8	97.3			80.0-120		08/25/2017 03:55	WG1013442
(S) Dibromofluoromethane	101			74.0-131		08/25/2017 03:55	WG1013442
(S) 4-Bromofluorobenzene	96.7			64.0-132		08/25/2017 03:55	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/2017



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.8		1	08/28/2017 12:37	WG1013766

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	0.0351 U	J	0.0118	0.0589	1	08/25/2017 04:15	WG1013442
Acrylonitrile	U		0.00211	0.0118	1	08/25/2017 04:15	WG1013442
Benzene	U		0.000318	0.00118	1	08/25/2017 04:15	WG1013442
Bromobenzene	U		0.000335	0.00118	1	08/25/2017 04:15	WG1013442
Bromodichloromethane	U		0.000299	0.00118	1	08/25/2017 04:15	WG1013442
Bromochloromethane	U		0.000460	0.00589	1	08/25/2017 04:15	WG1013442
Bromoform	U		0.000500	0.00118	1	08/25/2017 04:15	WG1013442
Bromomethane	U	J3	0.00158	0.00589	1	08/25/2017 04:15	WG1013442
n-Butylbenzene	U		0.000304	0.00118	1	08/25/2017 04:15	WG1013442
sec-Butylbenzene	U		0.000237	0.00118	1	08/25/2017 04:15	WG1013442
tert-Butylbenzene	U		0.000243	0.00118	1	08/25/2017 04:15	WG1013442
Carbon disulfide	0.000327 J	J J3	0.000261	0.00118	1	08/25/2017 04:15	WG1013442
Carbon tetrachloride	U		0.000387	0.00118	1	08/25/2017 04:15	WG1013442
Chlorobenzene	U		0.000250	0.00118	1	08/25/2017 04:15	WG1013442
Chlorodibromomethane	U		0.000440	0.00118	1	08/25/2017 04:15	WG1013442
Chloroethane	U	J3	0.00112	0.00589	1	08/25/2017 04:15	WG1013442
Chloroform	U		0.000270	0.00589	1	08/25/2017 04:15	WG1013442
Chloromethane	U UJ	JO J3	0.000442	0.00295	1	08/25/2017 04:15	WG1013442
2-Chlorotoluene	U		0.000355	0.00118	1	08/25/2017 04:15	WG1013442
4-Chlorotoluene	U		0.000283	0.00118	1	08/25/2017 04:15	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00124	0.00589	1	08/25/2017 04:15	WG1013442
1,2-Dibromoethane	U		0.000404	0.00118	1	08/25/2017 04:15	WG1013442
Dibromomethane	U		0.000450	0.00118	1	08/25/2017 04:15	WG1013442
1,2-Dichlorobenzene	U		0.000360	0.00118	1	08/25/2017 04:15	WG1013442
1,3-Dichlorobenzene	U		0.000282	0.00118	1	08/25/2017 04:15	WG1013442
1,4-Dichlorobenzene	U		0.000266	0.00118	1	08/25/2017 04:15	WG1013442
Dichlorodifluoromethane	U UJ	JO J3 J4	0.000841	0.00589	1	08/25/2017 04:15	WG1013442
1,1-Dichloroethane	U		0.000235	0.00118	1	08/25/2017 04:15	WG1013442
1,2-Dichloroethane	U		0.000312	0.00118	1	08/25/2017 04:15	WG1013442
1,1-Dichloroethene	U		0.000357	0.00118	1	08/25/2017 04:15	WG1013442
cis-1,2-Dichloroethene	0.000287 J	J	0.000277	0.00118	1	08/25/2017 04:15	WG1013442
trans-1,2-Dichloroethene	U		0.000311	0.00118	1	08/25/2017 04:15	WG1013442
1,2-Dichloropropane	U		0.000422	0.00118	1	08/25/2017 04:15	WG1013442
1,1-Dichloropropene	U		0.000374	0.00118	1	08/25/2017 04:15	WG1013442
1,3-Dichloropropane	U		0.000244	0.00118	1	08/25/2017 04:15	WG1013442
cis-1,3-Dichloropropene	U		0.000309	0.00118	1	08/25/2017 04:15	WG1013442
trans-1,3-Dichloropropene	U		0.000315	0.00118	1	08/25/2017 04:15	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000917	0.00295	1	08/25/2017 04:15	WG1013442
2,2-Dichloropropane	U		0.000329	0.00118	1	08/25/2017 04:15	WG1013442
Di-isopropyl ether	U		0.000292	0.00118	1	08/25/2017 04:15	WG1013442
Ethylbenzene	U		0.000350	0.00118	1	08/25/2017 04:15	WG1013442
Hexachloro-1,3-butadiene	U		0.000403	0.00118	1	08/25/2017 04:15	WG1013442
2-Hexanone	U		0.00162	0.0118	1	08/25/2017 04:15	WG1013442
n-Hexane	U	J3	0.000342	0.0118	1	08/25/2017 04:15	WG1013442
Iodomethane	U		0.00298	0.0118	1	08/25/2017 04:15	WG1013442
Isopropylbenzene	U		0.000286	0.00118	1	08/25/2017 04:15	WG1013442
p-Isopropyltoluene	U		0.000241	0.00118	1	08/25/2017 04:15	WG1013442
2-Butanone (MEK)	U		0.00552	0.0118	1	08/25/2017 04:15	WG1013442
Methylene Chloride	U		0.00118	0.00589	1	08/25/2017 04:15	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00222	0.0118	1	08/25/2017 04:15	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000250	0.00118	1	08/25/2017 04:15	WG1013442
Naphthalene	U		0.00118	0.00589	1	08/25/2017 04:15	WG1013442
n-Propylbenzene	U		0.000243	0.00118	1	08/25/2017 04:15	WG1013442
Styrene	U		0.000276	0.00118	1	08/25/2017 04:15	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000311	0.00118	1	08/25/2017 04:15	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000430	0.00118	1	08/25/2017 04:15	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000430	0.00118	1	08/25/2017 04:15	WG1013442
Tetrachloroethene	0.0313		0.000325	0.00118	1	08/25/2017 04:15	WG1013442
Toluene	U		0.000512	0.00589	1	08/25/2017 04:15	WG1013442
1,2,3-Trichlorobenzene	U		0.000361	0.00118	1	08/25/2017 04:15	WG1013442
1,2,4-Trichlorobenzene	U		0.000457	0.00118	1	08/25/2017 04:15	WG1013442
1,1,1-Trichloroethane	U		0.000337	0.00118	1	08/25/2017 04:15	WG1013442
1,1,2-Trichloroethane	U		0.000327	0.00118	1	08/25/2017 04:15	WG1013442
Trichloroethene	0.00234		0.000329	0.00118	1	08/25/2017 04:15	WG1013442
Trichlorofluoromethane	U	<u>J3</u>	0.000450	0.00589	1	08/25/2017 04:15	WG1013442
1,2,3-Trichloropropane	U		0.000874	0.00295	1	08/25/2017 04:15	WG1013442
1,2,4-Trimethylbenzene	U		0.000249	0.00118	1	08/25/2017 04:15	WG1013442
1,2,3-Trimethylbenzene	U		0.000338	0.00118	1	08/25/2017 04:15	WG1013442
1,3,5-Trimethylbenzene	U		0.000314	0.00118	1	08/25/2017 04:15	WG1013442
Vinyl acetate	U		0.00282	0.0118	1	08/25/2017 04:15	WG1013442
Vinyl chloride	U	<u>J3 J4</u>	0.000343	0.00118	1	08/25/2017 04:15	WG1013442
Xylenes, Total	U		0.000823	0.00354	1	08/25/2017 04:15	WG1013442
(S) Toluene-d8	97.2			80.0-120		08/25/2017 04:15	WG1013442
(S) Dibromofluoromethane	101			74.0-131		08/25/2017 04:15	WG1013442
(S) 4-Bromofluorobenzene	94.4			64.0-132		08/25/2017 04:15	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.3		1	08/28/2017 12:37	WG1013766

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.919	2.71	25	08/27/2017 02:52	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	99.3			77.0-120		08/27/2017 02:52	WG1013897

Sample Narrative:

L931390-03 WG1013897: Elevated RL. Reported from MEOH vial. Bisulfates used in previous runs.

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.271	1.35	25	08/28/2017 17:20	WG1013442
Acrylonitrile	U		0.0485	0.271	25	08/28/2017 17:20	WG1013442
Benzene	U		0.00731	0.0271	25	08/28/2017 17:20	WG1013442
Bromobenzene	U		0.00769	0.0271	25	08/28/2017 17:20	WG1013442
Bromodichloromethane	U		0.00688	0.0271	25	08/28/2017 17:20	WG1013442
Bromochloromethane	U		0.0106	0.135	25	08/28/2017 17:20	WG1013442
Bromoform	U		0.0115	0.0271	25	08/28/2017 17:20	WG1013442
Bromomethane	U	J3	0.0363	0.135	25	08/28/2017 17:20	WG1013442
n-Butylbenzene	U		0.00699	0.0271	25	08/28/2017 17:20	WG1013442
sec-Butylbenzene	U		0.00544	0.0271	25	08/28/2017 17:20	WG1013442
tert-Butylbenzene	U		0.00558	0.0271	25	08/28/2017 17:20	WG1013442
Carbon disulfide	U	J3	0.00598	0.0271	25	08/28/2017 17:20	WG1013442
Carbon tetrachloride	U		0.00889	0.0271	25	08/28/2017 17:20	WG1013442
Chlorobenzene	U		0.00574	0.0271	25	08/28/2017 17:20	WG1013442
Chlorodibromomethane	U		0.0101	0.0271	25	08/28/2017 17:20	WG1013442
Chloroethane	U	J3	0.0256	0.135	25	08/28/2017 17:20	WG1013442
Chloroform	U		0.00620	0.135	25	08/28/2017 17:20	WG1013442
Chloromethane	U	J3	0.0102	0.0677	25	08/28/2017 17:20	WG1013442
2-Chlorotoluene	U		0.00815	0.0271	25	08/28/2017 17:20	WG1013442
4-Chlorotoluene	U		0.00650	0.0271	25	08/28/2017 17:20	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.0284	0.135	25	08/28/2017 17:20	WG1013442
1,2-Dibromoethane	U		0.00930	0.0271	25	08/28/2017 17:20	WG1013442
Dibromomethane	U		0.0103	0.0271	25	08/28/2017 17:20	WG1013442
1,2-Dichlorobenzene	U		0.00826	0.0271	25	08/28/2017 17:20	WG1013442
1,3-Dichlorobenzene	U		0.00648	0.0271	25	08/28/2017 17:20	WG1013442
1,4-Dichlorobenzene	U		0.00612	0.0271	25	08/28/2017 17:20	WG1013442
Dichlorodifluoromethane	U UJ	J3 J4	0.0193	0.135	25	08/28/2017 17:20	WG1013442
1,1-Dichloroethane	U		0.00540	0.0271	25	08/28/2017 17:20	WG1013442
1,2-Dichloroethane	U		0.00717	0.0271	25	08/28/2017 17:20	WG1013442
1,1-Dichloroethene	U		0.00821	0.0271	25	08/28/2017 17:20	WG1013442
cis-1,2-Dichloroethene	U		0.00637	0.0271	25	08/28/2017 17:20	WG1013442
trans-1,2-Dichloroethene	U		0.00715	0.0271	25	08/28/2017 17:20	WG1013442
1,2-Dichloropropane	U		0.00970	0.0271	25	08/28/2017 17:20	WG1013442
1,1-Dichloropropene	U		0.00858	0.0271	25	08/28/2017 17:20	WG1013442
1,3-Dichloropropane	U		0.00561	0.0271	25	08/28/2017 17:20	WG1013442
cis-1,3-Dichloropropene	U		0.00710	0.0271	25	08/28/2017 17:20	WG1013442
trans-1,3-Dichloropropene	U		0.00724	0.0271	25	08/28/2017 17:20	WG1013442
trans-1,4-Dichloro-2-butene	U		0.0210	0.0677	25	08/28/2017 17:20	WG1013442
2,2-Dichloropropane	U		0.00756	0.0271	25	08/28/2017 17:20	WG1013442
Di-isopropyl ether	U		0.00672	0.0271	25	08/28/2017 17:20	WG1013442
Ethylbenzene	U		0.00804	0.0271	25	08/28/2017 17:20	WG1013442

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Collected date/time: 08/21/17 15:30

L931390

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.00927	0.0271	25	08/28/2017 17:20	WG1013442
2-Hexanone	U		0.0371	0.271	25	08/28/2017 17:20	WG1013442
n-Hexane	U	J3	0.00786	0.271	25	08/28/2017 17:20	WG1013442
Iodomethane	U		0.0685	0.271	25	08/28/2017 17:20	WG1013442
Isopropylbenzene	U		0.00659	0.0271	25	08/28/2017 17:20	WG1013442
p-Isopropyltoluene	U		0.00553	0.0271	25	08/28/2017 17:20	WG1013442
2-Butanone (MEK)	U		0.127	0.271	25	08/28/2017 17:20	WG1013442
Methylene Chloride	U		0.0271	0.135	25	08/28/2017 17:20	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.0509	0.271	25	08/28/2017 17:20	WG1013442
Methyl tert-butyl ether	0.0523		0.00574	0.0271	25	08/28/2017 17:20	WG1013442
Naphthalene	U		0.0271	0.135	25	08/28/2017 17:20	WG1013442
n-Propylbenzene	U		0.00558	0.0271	25	08/28/2017 17:20	WG1013442
Styrene	U		0.00634	0.0271	25	08/28/2017 17:20	WG1013442
1,1,1,2-Tetrachloroethane	U		0.00715	0.0271	25	08/28/2017 17:20	WG1013442
1,1,2,2-Tetrachloroethane	U		0.00988	0.0271	25	08/28/2017 17:20	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.00988	0.0271	25	08/28/2017 17:20	WG1013442
Tetrachloroethene	0.0730		0.00748	0.0271	25	08/28/2017 17:20	WG1013442
Toluene	U		0.0117	0.135	25	08/28/2017 17:20	WG1013442
1,2,3-Trichlorobenzene	U		0.00829	0.0271	25	08/28/2017 17:20	WG1013442
1,2,4-Trichlorobenzene	U		0.0105	0.0271	25	08/28/2017 17:20	WG1013442
1,1,1-Trichloroethane	U		0.00775	0.0271	25	08/28/2017 17:20	WG1013442
1,1,2-Trichloroethane	U		0.00750	0.0271	25	08/28/2017 17:20	WG1013442
Trichloroethene	0.0647		0.00756	0.0271	25	08/28/2017 17:20	WG1013442
Trichlorofluoromethane	U	J3	0.0103	0.135	25	08/28/2017 17:20	WG1013442
1,2,3-Trichloropropane	U		0.0200	0.0677	25	08/28/2017 17:20	WG1013442
1,2,4-Trimethylbenzene	U		0.00572	0.0271	25	08/28/2017 17:20	WG1013442
1,2,3-Trimethylbenzene	U		0.00778	0.0271	25	08/28/2017 17:20	WG1013442
1,3,5-Trimethylbenzene	U		0.00721	0.0271	25	08/28/2017 17:20	WG1013442
Vinyl acetate	U		0.0648	0.271	25	08/28/2017 17:20	WG1013442
Vinyl chloride	U	J3 J4	0.00789	0.0271	25	08/28/2017 17:20	WG1013442
Xylenes, Total	U		0.0189	0.0813	25	08/28/2017 17:20	WG1013442
(S) Toluene-d8	107			80.0-120		08/28/2017 17:20	WG1013442
(S) Dibromofluoromethane	97.9			74.0-131		08/28/2017 17:20	WG1013442
(S) 4-Bromofluorobenzene	97.0			64.0-132		08/28/2017 17:20	WG1013442

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L931390-03 WG1013442: No stir bars remain for analysis.

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.8		1	08/28/2017 12:37	WG1013766

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0378	0.111	1	08/29/2017 14:24	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	94.0			77.0-120		08/29/2017 14:24	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0111	0.0557	1	08/25/2017 04:57	WG1013442
Acrylonitrile	U		0.00199	0.0111	1	08/25/2017 04:57	WG1013442
Benzene	U		0.000301	0.00111	1	08/25/2017 04:57	WG1013442
Bromobenzene	U		0.000316	0.00111	1	08/25/2017 04:57	WG1013442
Bromodichloromethane	U		0.000283	0.00111	1	08/25/2017 04:57	WG1013442
Bromochloromethane	U		0.000434	0.00557	1	08/25/2017 04:57	WG1013442
Bromoform	U		0.000472	0.00111	1	08/25/2017 04:57	WG1013442
Bromomethane	U	J3	0.00149	0.00557	1	08/25/2017 04:57	WG1013442
n-Butylbenzene	U		0.000287	0.00111	1	08/25/2017 04:57	WG1013442
sec-Butylbenzene	U		0.000224	0.00111	1	08/25/2017 04:57	WG1013442
tert-Butylbenzene	U		0.000229	0.00111	1	08/25/2017 04:57	WG1013442
Carbon disulfide	U	J3	0.000246	0.00111	1	08/25/2017 04:57	WG1013442
Carbon tetrachloride	U		0.000365	0.00111	1	08/25/2017 04:57	WG1013442
Chlorobenzene	U		0.000236	0.00111	1	08/25/2017 04:57	WG1013442
Chlorodibromomethane	U		0.000416	0.00111	1	08/25/2017 04:57	WG1013442
Chloroethane	U	J3	0.00105	0.00557	1	08/25/2017 04:57	WG1013442
Chloroform	U		0.000255	0.00557	1	08/25/2017 04:57	WG1013442
Chloromethane	U UJ	JO J3	0.000418	0.00279	1	08/25/2017 04:57	WG1013442
2-Chlorotoluene	U		0.000335	0.00111	1	08/25/2017 04:57	WG1013442
4-Chlorotoluene	U		0.000267	0.00111	1	08/25/2017 04:57	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00557	1	08/25/2017 04:57	WG1013442
1,2-Dibromoethane	U		0.000382	0.00111	1	08/25/2017 04:57	WG1013442
Dibromomethane	U		0.000426	0.00111	1	08/25/2017 04:57	WG1013442
1,2-Dichlorobenzene	U		0.000340	0.00111	1	08/25/2017 04:57	WG1013442
1,3-Dichlorobenzene	U		0.000266	0.00111	1	08/25/2017 04:57	WG1013442
1,4-Dichlorobenzene	U		0.000252	0.00111	1	08/25/2017 04:57	WG1013442
Dichlorodifluoromethane	U UJ	JO J3 J4	0.000794	0.00557	1	08/25/2017 04:57	WG1013442
1,1-Dichloroethane	U		0.000222	0.00111	1	08/25/2017 04:57	WG1013442
1,2-Dichloroethane	U		0.000295	0.00111	1	08/25/2017 04:57	WG1013442
1,1-Dichloroethene	U		0.000338	0.00111	1	08/25/2017 04:57	WG1013442
cis-1,2-Dichloroethene	0.00185		0.000262	0.00111	1	08/25/2017 04:57	WG1013442
trans-1,2-Dichloroethene	U		0.000294	0.00111	1	08/25/2017 04:57	WG1013442
1,2-Dichloropropane	U		0.000399	0.00111	1	08/25/2017 04:57	WG1013442
1,1-Dichloropropene	U		0.000353	0.00111	1	08/25/2017 04:57	WG1013442
1,3-Dichloropropane	U		0.000231	0.00111	1	08/25/2017 04:57	WG1013442
cis-1,3-Dichloropropene	U		0.000292	0.00111	1	08/25/2017 04:57	WG1013442
trans-1,3-Dichloropropene	U		0.000297	0.00111	1	08/25/2017 04:57	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000867	0.00279	1	08/25/2017 04:57	WG1013442
2,2-Dichloropropane	U		0.000311	0.00111	1	08/25/2017 04:57	WG1013442
Di-isopropyl ether	U		0.000276	0.00111	1	08/25/2017 04:57	WG1013442
Ethylbenzene	U		0.000331	0.00111	1	08/25/2017 04:57	WG1013442
Hexachloro-1,3-butadiene	U		0.000381	0.00111	1	08/25/2017 04:57	WG1013442
2-Hexanone	U		0.00153	0.0111	1	08/25/2017 04:57	WG1013442
n-Hexane	U	J3	0.000323	0.0111	1	08/25/2017 04:57	WG1013442

6 Qc

7 Gl

8 Al

9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00282	0.0111	1	08/25/2017 04:57	WG1013442
Isopropylbenzene	U		0.000271	0.00111	1	08/25/2017 04:57	WG1013442
p-Isopropyltoluene	U		0.000227	0.00111	1	08/25/2017 04:57	WG1013442
2-Butanone (MEK)	U		0.00521	0.0111	1	08/25/2017 04:57	WG1013442
Methylene Chloride	U		0.00111	0.00557	1	08/25/2017 04:57	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00209	0.0111	1	08/25/2017 04:57	WG1013442
Methyl tert-butyl ether	U		0.000236	0.00111	1	08/25/2017 04:57	WG1013442
Naphthalene	U		0.00111	0.00557	1	08/25/2017 04:57	WG1013442
n-Propylbenzene	U		0.000229	0.00111	1	08/25/2017 04:57	WG1013442
Styrene	U		0.000261	0.00111	1	08/25/2017 04:57	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000294	0.00111	1	08/25/2017 04:57	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000407	0.00111	1	08/25/2017 04:57	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000407	0.00111	1	08/25/2017 04:57	WG1013442
Tetrachloroethene	U		0.000307	0.00111	1	08/25/2017 04:57	WG1013442
Toluene	U		0.000484	0.00557	1	08/25/2017 04:57	WG1013442
1,2,3-Trichlorobenzene	U		0.000341	0.00111	1	08/25/2017 04:57	WG1013442
1,2,4-Trichlorobenzene	U		0.000432	0.00111	1	08/25/2017 04:57	WG1013442
1,1,1-Trichloroethane	U		0.000319	0.00111	1	08/25/2017 04:57	WG1013442
1,1,2-Trichloroethane	U		0.000309	0.00111	1	08/25/2017 04:57	WG1013442
Trichloroethene	U		0.000311	0.00111	1	08/25/2017 04:57	WG1013442
Trichlorofluoromethane	U	J3	0.000426	0.00557	1	08/25/2017 04:57	WG1013442
1,2,3-Trichloropropane	U		0.000826	0.00279	1	08/25/2017 04:57	WG1013442
1,2,4-Trimethylbenzene	U		0.000235	0.00111	1	08/25/2017 04:57	WG1013442
1,2,3-Trimethylbenzene	U		0.000320	0.00111	1	08/25/2017 04:57	WG1013442
1,3,5-Trimethylbenzene	U		0.000296	0.00111	1	08/25/2017 04:57	WG1013442
Vinyl acetate	U		0.00266	0.0111	1	08/25/2017 04:57	WG1013442
Vinyl chloride	0.000499	J J J3 J4	0.000324	0.00111	1	08/25/2017 04:57	WG1013442
Xylenes, Total	U		0.000778	0.00334	1	08/25/2017 04:57	WG1013442
(S) Toluene-d8	98.0			80.0-120		08/25/2017 04:57	WG1013442
(S) Dibromofluoromethane	104			74.0-131		08/25/2017 04:57	WG1013442
(S) 4-Bromofluorobenzene	93.0			64.0-132		08/25/2017 04:57	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.6	J3	1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0391	0.115	1	08/27/2017 03:14	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.2			77.0-120		08/27/2017 03:14	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0115	0.0577	1	08/25/2017 05:17	WG1013442
Acrylonitrile	U		0.00207	0.0115	1	08/25/2017 05:17	WG1013442
Benzene	U		0.000312	0.00115	1	08/25/2017 05:17	WG1013442
Bromobenzene	U		0.000328	0.00115	1	08/25/2017 05:17	WG1013442
Bromodichloromethane	U		0.000293	0.00115	1	08/25/2017 05:17	WG1013442
Bromochloromethane	U		0.000450	0.00577	1	08/25/2017 05:17	WG1013442
Bromoform	U		0.000489	0.00115	1	08/25/2017 05:17	WG1013442
Bromomethane	U	J3	0.00155	0.00577	1	08/25/2017 05:17	WG1013442
n-Butylbenzene	U		0.000298	0.00115	1	08/25/2017 05:17	WG1013442
sec-Butylbenzene	U		0.000232	0.00115	1	08/25/2017 05:17	WG1013442
tert-Butylbenzene	U		0.000238	0.00115	1	08/25/2017 05:17	WG1013442
Carbon disulfide	0.000783 J	J J3	0.000255	0.00115	1	08/25/2017 05:17	WG1013442
Carbon tetrachloride	U		0.000379	0.00115	1	08/25/2017 05:17	WG1013442
Chlorobenzene	U		0.000245	0.00115	1	08/25/2017 05:17	WG1013442
Chlorodibromomethane	U		0.000430	0.00115	1	08/25/2017 05:17	WG1013442
Chloroethane	U	J3	0.00109	0.00577	1	08/25/2017 05:17	WG1013442
Chloroform	U		0.000264	0.00577	1	08/25/2017 05:17	WG1013442
Chloromethane	U UJ	JO J3	0.000433	0.00289	1	08/25/2017 05:17	WG1013442
2-Chlorotoluene	U		0.000347	0.00115	1	08/25/2017 05:17	WG1013442
4-Chlorotoluene	U		0.000277	0.00115	1	08/25/2017 05:17	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00121	0.00577	1	08/25/2017 05:17	WG1013442
1,2-Dibromoethane	U		0.000396	0.00115	1	08/25/2017 05:17	WG1013442
Dibromomethane	U		0.000441	0.00115	1	08/25/2017 05:17	WG1013442
1,2-Dichlorobenzene	U		0.000352	0.00115	1	08/25/2017 05:17	WG1013442
1,3-Dichlorobenzene	U		0.000276	0.00115	1	08/25/2017 05:17	WG1013442
1,4-Dichlorobenzene	U		0.000261	0.00115	1	08/25/2017 05:17	WG1013442
Dichlorodifluoromethane	U UJ	JO J3 J4	0.000823	0.00577	1	08/25/2017 05:17	WG1013442
1,1-Dichloroethane	U		0.000230	0.00115	1	08/25/2017 05:17	WG1013442
1,2-Dichloroethane	U		0.000306	0.00115	1	08/25/2017 05:17	WG1013442
1,1-Dichloroethene	U		0.000350	0.00115	1	08/25/2017 05:17	WG1013442
cis-1,2-Dichloroethene	0.00950		0.000271	0.00115	1	08/25/2017 05:17	WG1013442
trans-1,2-Dichloroethene	U		0.000305	0.00115	1	08/25/2017 05:17	WG1013442
1,2-Dichloropropane	U		0.000413	0.00115	1	08/25/2017 05:17	WG1013442
1,1-Dichloropropene	U		0.000366	0.00115	1	08/25/2017 05:17	WG1013442
1,3-Dichloropropane	U		0.000239	0.00115	1	08/25/2017 05:17	WG1013442
cis-1,3-Dichloropropene	U		0.000302	0.00115	1	08/25/2017 05:17	WG1013442
trans-1,3-Dichloropropene	U		0.000308	0.00115	1	08/25/2017 05:17	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000898	0.00289	1	08/25/2017 05:17	WG1013442
2,2-Dichloropropane	U		0.000322	0.00115	1	08/25/2017 05:17	WG1013442
Di-isopropyl ether	U		0.000286	0.00115	1	08/25/2017 05:17	WG1013442
Ethylbenzene	U		0.000343	0.00115	1	08/25/2017 05:17	WG1013442
Hexachloro-1,3-butadiene	U		0.000395	0.00115	1	08/25/2017 05:17	WG1013442
2-Hexanone	U		0.00158	0.0115	1	08/25/2017 05:17	WG1013442
n-Hexane	U	J3	0.000335	0.0115	1	08/25/2017 05:17	WG1013442

6 Qc

7 Gl

8 Al

9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00292	0.0115	1	08/25/2017 05:17	WG1013442
Isopropylbenzene	U		0.000280	0.00115	1	08/25/2017 05:17	WG1013442
p-Isopropyltoluene	U		0.000235	0.00115	1	08/25/2017 05:17	WG1013442
2-Butanone (MEK)	U		0.00540	0.0115	1	08/25/2017 05:17	WG1013442
Methylene Chloride	U		0.00115	0.00577	1	08/25/2017 05:17	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00217	0.0115	1	08/25/2017 05:17	WG1013442
Methyl tert-butyl ether	U		0.000245	0.00115	1	08/25/2017 05:17	WG1013442
Naphthalene	U		0.00115	0.00577	1	08/25/2017 05:17	WG1013442
n-Propylbenzene	U		0.000238	0.00115	1	08/25/2017 05:17	WG1013442
Styrene	U		0.000270	0.00115	1	08/25/2017 05:17	WG1013442
1,1,1-Tetrachloroethane	U		0.000305	0.00115	1	08/25/2017 05:17	WG1013442
1,1,2-Tetrachloroethane	U		0.000421	0.00115	1	08/25/2017 05:17	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000421	0.00115	1	08/25/2017 05:17	WG1013442
Tetrachloroethene	0.00789		0.000319	0.00115	1	08/25/2017 05:17	WG1013442
Toluene	U		0.000501	0.00577	1	08/25/2017 05:17	WG1013442
1,2,3-Trichlorobenzene	U		0.000353	0.00115	1	08/25/2017 05:17	WG1013442
1,2,4-Trichlorobenzene	U		0.000448	0.00115	1	08/25/2017 05:17	WG1013442
1,1,1-Trichloroethane	U		0.000330	0.00115	1	08/25/2017 05:17	WG1013442
1,1,2-Trichloroethane	U		0.000320	0.00115	1	08/25/2017 05:17	WG1013442
Trichloroethene	0.00300		0.000322	0.00115	1	08/25/2017 05:17	WG1013442
Trichlorofluoromethane	U	J3	0.000441	0.00577	1	08/25/2017 05:17	WG1013442
1,2,3-Trichloropropane	U		0.000855	0.00289	1	08/25/2017 05:17	WG1013442
1,2,4-Trimethylbenzene	U		0.000244	0.00115	1	08/25/2017 05:17	WG1013442
1,2,3-Trimethylbenzene	U		0.000331	0.00115	1	08/25/2017 05:17	WG1013442
1,3,5-Trimethylbenzene	U		0.000307	0.00115	1	08/25/2017 05:17	WG1013442
Vinyl acetate	U		0.00276	0.0115	1	08/25/2017 05:17	WG1013442
Vinyl chloride	U	J3 J4	0.000336	0.00115	1	08/25/2017 05:17	WG1013442
Xylenes, Total	U		0.000806	0.00346	1	08/25/2017 05:17	WG1013442
(S) Toluene-d8	98.2			80.0-120		08/25/2017 05:17	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 05:17	WG1013442
(S) 4-Bromofluorobenzene	95.6			64.0-132		08/25/2017 05:17	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/2017



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.8		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.164		0.0369	0.109	1	08/27/2017 03:37	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.5			77.0-120		08/27/2017 03:37	WG1013897

3 Ss

4 Cn

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0109	0.0545	1	08/25/2017 05:38	WG1013442
Acrylonitrile	U		0.00195	0.0109	1	08/25/2017 05:38	WG1013442
Benzene	U		0.000294	0.00109	1	08/25/2017 05:38	WG1013442
Bromobenzene	U		0.000309	0.00109	1	08/25/2017 05:38	WG1013442
Bromodichloromethane	U		0.000277	0.00109	1	08/25/2017 05:38	WG1013442
Bromochloromethane	U		0.000425	0.00545	1	08/25/2017 05:38	WG1013442
Bromoform	U		0.000462	0.00109	1	08/25/2017 05:38	WG1013442
Bromomethane	U	J3	0.00146	0.00545	1	08/25/2017 05:38	WG1013442
n-Butylbenzene	U		0.000281	0.00109	1	08/25/2017 05:38	WG1013442
sec-Butylbenzene	U		0.000219	0.00109	1	08/25/2017 05:38	WG1013442
tert-Butylbenzene	U		0.000224	0.00109	1	08/25/2017 05:38	WG1013442
Carbon disulfide	0.000271 J	J J3	0.000241	0.00109	1	08/25/2017 05:38	WG1013442
Carbon tetrachloride	U		0.000357	0.00109	1	08/25/2017 05:38	WG1013442
Chlorobenzene	U		0.000231	0.00109	1	08/25/2017 05:38	WG1013442
Chlorodibromomethane	U		0.000406	0.00109	1	08/25/2017 05:38	WG1013442
Chloroethane	U	J3	0.00103	0.00545	1	08/25/2017 05:38	WG1013442
Chloroform	U		0.000250	0.00545	1	08/25/2017 05:38	WG1013442
Chloromethane	U UJ	JO J3	0.000409	0.00272	1	08/25/2017 05:38	WG1013442
2-Chlorotoluene	U		0.000328	0.00109	1	08/25/2017 05:38	WG1013442
4-Chlorotoluene	U		0.000261	0.00109	1	08/25/2017 05:38	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00545	1	08/25/2017 05:38	WG1013442
1,2-Dibromoethane	U		0.000374	0.00109	1	08/25/2017 05:38	WG1013442
Dibromomethane	U		0.000416	0.00109	1	08/25/2017 05:38	WG1013442
1,2-Dichlorobenzene	U		0.000332	0.00109	1	08/25/2017 05:38	WG1013442
1,3-Dichlorobenzene	U		0.000260	0.00109	1	08/25/2017 05:38	WG1013442
1,4-Dichlorobenzene	U		0.000246	0.00109	1	08/25/2017 05:38	WG1013442
Dichlorodifluoromethane	U UJ	JO J3 J4	0.000777	0.00545	1	08/25/2017 05:38	WG1013442
1,1-Dichloroethane	U		0.000217	0.00109	1	08/25/2017 05:38	WG1013442
1,2-Dichloroethane	U		0.000289	0.00109	1	08/25/2017 05:38	WG1013442
1,1-Dichloroethene	0.000583 J	J	0.000330	0.00109	1	08/25/2017 05:38	WG1013442
cis-1,2-Dichloroethene	3.27		0.0269	0.114	105	08/28/2017 17:46	WG1013442
trans-1,2-Dichloroethene	0.00790		0.000288	0.00109	1	08/25/2017 05:38	WG1013442
1,2-Dichloropropane	U		0.000390	0.00109	1	08/25/2017 05:38	WG1013442
1,1-Dichloropropene	U		0.000345	0.00109	1	08/25/2017 05:38	WG1013442
1,3-Dichloropropane	U		0.000226	0.00109	1	08/25/2017 05:38	WG1013442
cis-1,3-Dichloropropene	U		0.000285	0.00109	1	08/25/2017 05:38	WG1013442
trans-1,3-Dichloropropene	U		0.000291	0.00109	1	08/25/2017 05:38	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000848	0.00272	1	08/25/2017 05:38	WG1013442
2,2-Dichloropropane	U		0.000304	0.00109	1	08/25/2017 05:38	WG1013442
Di-isopropyl ether	U		0.000270	0.00109	1	08/25/2017 05:38	WG1013442
Ethylbenzene	U		0.000324	0.00109	1	08/25/2017 05:38	WG1013442
Hexachloro-1,3-butadiene	U		0.000373	0.00109	1	08/25/2017 05:38	WG1013442
2-Hexanone	U		0.00149	0.0109	1	08/25/2017 05:38	WG1013442
n-Hexane	0.000325 J	J J3	0.000316	0.0109	1	08/25/2017 05:38	WG1013442

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 9/19/2017



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00276	0.0109	1	08/25/2017 05:38	WG1013442
Isopropylbenzene	U		0.000265	0.00109	1	08/25/2017 05:38	WG1013442
p-Isopropyltoluene	U		0.000222	0.00109	1	08/25/2017 05:38	WG1013442
2-Butanone (MEK)	U		0.00510	0.0109	1	08/25/2017 05:38	WG1013442
Methylene Chloride	U		0.00109	0.00545	1	08/25/2017 05:38	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00205	0.0109	1	08/25/2017 05:38	WG1013442
Methyl tert-butyl ether	U		0.000231	0.00109	1	08/25/2017 05:38	WG1013442
Naphthalene	U		0.00109	0.00545	1	08/25/2017 05:38	WG1013442
n-Propylbenzene	U		0.000224	0.00109	1	08/25/2017 05:38	WG1013442
Styrene	U		0.000255	0.00109	1	08/25/2017 05:38	WG1013442
1,1,1-Tetrachloroethane	U		0.000288	0.00109	1	08/25/2017 05:38	WG1013442
1,1,2-Tetrachloroethane	U		0.000398	0.00109	1	08/25/2017 05:38	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000398	0.00109	1	08/25/2017 05:38	WG1013442
Tetrachloroethene	0.000912	J J	0.000301	0.00109	1	08/25/2017 05:38	WG1013442
Toluene	U		0.000473	0.00545	1	08/25/2017 05:38	WG1013442
1,2,3-Trichlorobenzene	U		0.000333	0.00109	1	08/25/2017 05:38	WG1013442
1,2,4-Trichlorobenzene	U		0.000423	0.00109	1	08/25/2017 05:38	WG1013442
1,1,1-Trichloroethane	U		0.000312	0.00109	1	08/25/2017 05:38	WG1013442
1,1,2-Trichloroethane	U		0.000302	0.00109	1	08/25/2017 05:38	WG1013442
Trichloroethene	0.000376	J J	0.000304	0.00109	1	08/25/2017 05:38	WG1013442
Trichlorofluoromethane	U	J3	0.000416	0.00545	1	08/25/2017 05:38	WG1013442
1,2,3-Trichloropropane	U		0.000807	0.00272	1	08/25/2017 05:38	WG1013442
1,2,4-Trimethylbenzene	U		0.000230	0.00109	1	08/25/2017 05:38	WG1013442
1,2,3-Trimethylbenzene	U		0.000313	0.00109	1	08/25/2017 05:38	WG1013442
1,3,5-Trimethylbenzene	U		0.000290	0.00109	1	08/25/2017 05:38	WG1013442
Vinyl acetate	U		0.00260	0.0109	1	08/25/2017 05:38	WG1013442
Vinyl chloride	0.00182	J J3 J4	0.000317	0.00109	1	08/25/2017 05:38	WG1013442
Xylenes, Total	U		0.000760	0.00327	1	08/25/2017 05:38	WG1013442
(S) Toluene-d8	106			80.0-120		08/28/2017 17:46	WG1013442
(S) Toluene-d8	98.5			80.0-120		08/25/2017 05:38	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 05:38	WG1013442
(S) Dibromofluoromethane	99.1			74.0-131		08/28/2017 17:46	WG1013442
(S) 4-Bromofluorobenzene	95.3			64.0-132		08/25/2017 05:38	WG1013442
(S) 4-Bromofluorobenzene	97.4			64.0-132		08/28/2017 17:46	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/2017



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.2		1	08/28/2017 16:45	WG1013768

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.910	2.68	25	08/27/2017 07:04	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	98.9			77.0-120		08/27/2017 07:04	WG1013897

Sample Narrative:

L931390-07 WG1013897: Elevated RL. Reported from MEOH vial. Bisulfates used in previous runs.

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Acetone	U		0.268	1.34	25	08/28/2017 18:12	WG1013442	
Acrylonitrile	U		0.0481	0.268	25	08/28/2017 18:12	WG1013442	
Benzene	U		0.00724	0.0268	25	08/28/2017 18:12	WG1013442	
Bromobenzene	U		0.00762	0.0268	25	08/28/2017 18:12	WG1013442	
Bromodichloromethane	U		0.00682	0.0268	25	08/28/2017 18:12	WG1013442	
Bromochloromethane	U		0.0105	0.134	25	08/28/2017 18:12	WG1013442	
Bromoform	U		0.0114	0.0268	25	08/28/2017 18:12	WG1013442	
Bromomethane	U	J3	0.0360	0.134	25	08/28/2017 18:12	WG1013442	
n-Butylbenzene	U		0.00692	0.0268	25	08/28/2017 18:12	WG1013442	
sec-Butylbenzene	U		0.00539	0.0268	25	08/28/2017 18:12	WG1013442	
tert-Butylbenzene	U		0.00553	0.0268	25	08/28/2017 18:12	WG1013442	
Carbon disulfide	U	J3	0.00592	0.0268	25	08/28/2017 18:12	WG1013442	
Carbon tetrachloride	U		0.00880	0.0268	25	08/28/2017 18:12	WG1013442	
Chlorobenzene	U		0.00569	0.0268	25	08/28/2017 18:12	WG1013442	
Chlorodibromomethane	U		0.0100	0.0268	25	08/28/2017 18:12	WG1013442	
Chloroethane	U	J3	0.0253	0.134	25	08/28/2017 18:12	WG1013442	
Chloroform	U		0.00614	0.134	25	08/28/2017 18:12	WG1013442	
Chloromethane	U	J3	0.0101	0.0671	25	08/28/2017 18:12	WG1013442	
2-Chlorotoluene	U		0.00807	0.0268	25	08/28/2017 18:12	WG1013442	
4-Chlorotoluene	U		0.00644	0.0268	25	08/28/2017 18:12	WG1013442	
1,2-Dibromo-3-Chloropropane	U		0.0281	0.134	25	08/28/2017 18:12	WG1013442	
1,2-Dibromoethane	U		0.00921	0.0268	25	08/28/2017 18:12	WG1013442	
Dibromomethane	U		0.0102	0.0268	25	08/28/2017 18:12	WG1013442	
1,2-Dichlorobenzene	U		0.00818	0.0268	25	08/28/2017 18:12	WG1013442	
1,3-Dichlorobenzene	U		0.00642	0.0268	25	08/28/2017 18:12	WG1013442	
1,4-Dichlorobenzene	U		0.00606	0.0268	25	08/28/2017 18:12	WG1013442	
Dichlorodifluoromethane	U	UJ	J3 J4	0.0191	0.134	25	08/28/2017 18:12	WG1013442
1,1-Dichloroethane	U		0.00534	0.0268	25	08/28/2017 18:12	WG1013442	
1,2-Dichloroethane	U		0.00710	0.0268	25	08/28/2017 18:12	WG1013442	
1,1-Dichloroethene	U		0.00814	0.0268	25	08/28/2017 18:12	WG1013442	
cis-1,2-Dichloroethene	U		0.00631	0.0268	25	08/28/2017 18:12	WG1013442	
trans-1,2-Dichloroethene	U		0.00708	0.0268	25	08/28/2017 18:12	WG1013442	
1,2-Dichloropropane	U		0.00961	0.0268	25	08/28/2017 18:12	WG1013442	
1,1-Dichloropropene	U		0.00850	0.0268	25	08/28/2017 18:12	WG1013442	
1,3-Dichloropropane	U		0.00556	0.0268	25	08/28/2017 18:12	WG1013442	
cis-1,3-Dichloropropene	U		0.00703	0.0268	25	08/28/2017 18:12	WG1013442	
trans-1,3-Dichloropropene	U		0.00717	0.0268	25	08/28/2017 18:12	WG1013442	
trans-1,4-Dichloro-2-butene	U		0.0208	0.0671	25	08/28/2017 18:12	WG1013442	
2,2-Dichloropropane	U		0.00749	0.0268	25	08/28/2017 18:12	WG1013442	
Di-isopropyl ether	U		0.00665	0.0268	25	08/28/2017 18:12	WG1013442	
Ethylbenzene	U		0.00796	0.0268	25	08/28/2017 18:12	WG1013442	

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Collected date/time: 08/22/17 07:45

L931390

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.00918	0.0268	25	08/28/2017 18:12	WG1013442
2-Hexanone	U		0.0367	0.268	25	08/28/2017 18:12	WG1013442
n-Hexane	U	<u>J3</u>	0.00778	0.268	25	08/28/2017 18:12	WG1013442
Iodomethane	U		0.0678	0.268	25	08/28/2017 18:12	WG1013442
Isopropylbenzene	U		0.00653	0.0268	25	08/28/2017 18:12	WG1013442
p-Isopropyltoluene	U		0.00547	0.0268	25	08/28/2017 18:12	WG1013442
2-Butanone (MEK)	U		0.126	0.268	25	08/28/2017 18:12	WG1013442
Methylene Chloride	U		0.0268	0.134	25	08/28/2017 18:12	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.0504	0.268	25	08/28/2017 18:12	WG1013442
Methyl tert-butyl ether	0.0446		0.00569	0.0268	25	08/28/2017 18:12	WG1013442
Naphthalene	U		0.0268	0.134	25	08/28/2017 18:12	WG1013442
n-Propylbenzene	U		0.00553	0.0268	25	08/28/2017 18:12	WG1013442
Styrene	U		0.00628	0.0268	25	08/28/2017 18:12	WG1013442
1,1,1,2-Tetrachloroethane	U		0.00708	0.0268	25	08/28/2017 18:12	WG1013442
1,1,2,2-Tetrachloroethane	U		0.00979	0.0268	25	08/28/2017 18:12	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.00979	0.0268	25	08/28/2017 18:12	WG1013442
Tetrachloroethene	U		0.00741	0.0268	25	08/28/2017 18:12	WG1013442
Toluene	U		0.0116	0.134	25	08/28/2017 18:12	WG1013442
1,2,3-Trichlorobenzene	U		0.00821	0.0268	25	08/28/2017 18:12	WG1013442
1,2,4-Trichlorobenzene	U		0.0104	0.0268	25	08/28/2017 18:12	WG1013442
1,1,1-Trichloroethane	U		0.00767	0.0268	25	08/28/2017 18:12	WG1013442
1,1,2-Trichloroethane	U		0.00743	0.0268	25	08/28/2017 18:12	WG1013442
Trichloroethene	U		0.00749	0.0268	25	08/28/2017 18:12	WG1013442
Trichlorofluoromethane	U	<u>J3</u>	0.0102	0.134	25	08/28/2017 18:12	WG1013442
1,2,3-Trichloropropane	U		0.0199	0.0671	25	08/28/2017 18:12	WG1013442
1,2,4-Trimethylbenzene	U		0.00567	0.0268	25	08/28/2017 18:12	WG1013442
1,2,3-Trimethylbenzene	U		0.00771	0.0268	25	08/28/2017 18:12	WG1013442
1,3,5-Trimethylbenzene	U		0.00714	0.0268	25	08/28/2017 18:12	WG1013442
Vinyl acetate	U		0.0642	0.268	25	08/28/2017 18:12	WG1013442
Vinyl chloride	U	<u>J3 J4</u>	0.00781	0.0268	25	08/28/2017 18:12	WG1013442
Xylenes, Total	U		0.0187	0.0805	25	08/28/2017 18:12	WG1013442
(S) Toluene-d8	93.3			80.0-120		08/28/2017 18:12	WG1013442
(S) Dibromofluoromethane	97.5			74.0-131		08/28/2017 18:12	WG1013442
(S) 4-Bromofluorobenzene	98.4			64.0-132		08/28/2017 18:12	WG1013442

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L931390-07 WG1013442: No stir bars remain for analysis.

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Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	2880		31.6	100	1	08/27/2017 16:52	WG1013145
(S) a,a,a-Trifluorotoluene(FID)	100			77.0-122		08/27/2017 16:52	WG1013145

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	8.66 U	J	1.05	25.0	1	08/25/2017 12:48	WG1013682
Acrylonitrile	U		0.873	5.00	1	08/25/2017 12:48	WG1013682
Benzene	1.65		0.0896	0.500	1	08/25/2017 12:48	WG1013682
Bromobenzene	U		0.133	0.500	1	08/25/2017 12:48	WG1013682
Bromodichloromethane	U		0.0800	0.500	1	08/25/2017 12:48	WG1013682
Bromochloromethane	U		0.145	0.500	1	08/25/2017 12:48	WG1013682
Bromoform	U		0.186	0.500	1	08/25/2017 12:48	WG1013682
Bromomethane	U		0.157	2.50	1	08/25/2017 12:48	WG1013682
n-Butylbenzene	U		0.143	0.500	1	08/25/2017 12:48	WG1013682
sec-Butylbenzene	U		0.134	0.500	1	08/25/2017 12:48	WG1013682
tert-Butylbenzene	U		0.183	0.500	1	08/25/2017 12:48	WG1013682
Carbon disulfide	U		0.101	0.500	1	08/25/2017 12:48	WG1013682
Carbon tetrachloride	U		0.159	0.500	1	08/25/2017 12:48	WG1013682
Chlorobenzene	U		0.140	0.500	1	08/25/2017 12:48	WG1013682
Chlorodibromomethane	U		0.128	0.500	1	08/25/2017 12:48	WG1013682
Chloroethane	U		0.141	2.50	1	08/25/2017 12:48	WG1013682
Chloroform	U		0.0860	0.500	1	08/25/2017 12:48	WG1013682
Chloromethane	0.554 J	J	0.153	1.25	1	08/25/2017 12:48	WG1013682
2-Chlorotoluene	U		0.111	0.500	1	08/25/2017 12:48	WG1013682
4-Chlorotoluene	U		0.0972	0.500	1	08/25/2017 12:48	WG1013682
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/25/2017 12:48	WG1013682
1,2-Dibromoethane	U		0.193	0.500	1	08/25/2017 12:48	WG1013682
Dibromomethane	U		0.117	0.500	1	08/25/2017 12:48	WG1013682
1,2-Dichlorobenzene	U		0.101	0.500	1	08/25/2017 12:48	WG1013682
1,3-Dichlorobenzene	U		0.130	0.500	1	08/25/2017 12:48	WG1013682
1,4-Dichlorobenzene	U		0.121	0.500	1	08/25/2017 12:48	WG1013682
Dichlorodifluoromethane	U		0.127	2.50	1	08/25/2017 12:48	WG1013682
1,1-Dichloroethane	U		0.114	0.500	1	08/25/2017 12:48	WG1013682
1,2-Dichloroethane	U		0.108	0.500	1	08/25/2017 12:48	WG1013682
1,1-Dichloroethene	0.249 J	J	0.188	0.500	1	08/25/2017 12:48	WG1013682
cis-1,2-Dichloroethene	4.86		0.0933	0.500	1	08/25/2017 12:48	WG1013682
trans-1,2-Dichloroethene	0.168 J	J	0.152	0.500	1	08/25/2017 12:48	WG1013682
1,2-Dichloropropane	U		0.190	0.500	1	08/25/2017 12:48	WG1013682
1,1-Dichloropropene	U		0.128	0.500	1	08/25/2017 12:48	WG1013682
1,3-Dichloropropane	U		0.147	1.00	1	08/25/2017 12:48	WG1013682
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/25/2017 12:48	WG1013682
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/25/2017 12:48	WG1013682
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/25/2017 12:48	WG1013682
2,2-Dichloropropane	U		0.0929	0.500	1	08/25/2017 12:48	WG1013682
Di-isopropyl ether	U		0.0924	0.500	1	08/25/2017 12:48	WG1013682
Ethylbenzene	0.557		0.158	0.500	1	08/25/2017 12:48	WG1013682
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/25/2017 12:48	WG1013682
2-Hexanone	5.14		0.757	5.00	1	08/25/2017 12:48	WG1013682
n-Hexane	3.68 J	J	0.305	5.00	1	08/25/2017 12:48	WG1013682
Iodomethane	U		0.377	10.0	1	08/25/2017 12:48	WG1013682
Isopropylbenzene	U		0.126	0.500	1	08/25/2017 12:48	WG1013682
p-Isopropyltoluene	U		0.138	0.500	1	08/25/2017 12:48	WG1013682
2-Butanone (MEK)	25.2 J	JO	1.28	5.00	1	08/25/2017 12:48	WG1013682

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		1.07	2.50	1	08/25/2017 12:48	WG1013682
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/25/2017 12:48	WG1013682
Methyl tert-butyl ether	U		0.102	0.500	1	08/25/2017 12:48	WG1013682
Naphthalene	0.262 U	<u>BJ</u>	0.174	2.50	1	08/25/2017 12:48	WG1013682
n-Propylbenzene	U		0.162	0.500	1	08/25/2017 12:48	WG1013682
Styrene	0.168 J	<u>J</u>	0.117	0.500	1	08/25/2017 12:48	WG1013682
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/25/2017 12:48	WG1013682
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/25/2017 12:48	WG1013682
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/25/2017 12:48	WG1013682
Tetrachloroethene	19.8		0.199	0.500	1	08/25/2017 12:48	WG1013682
Toluene	297		20.6	25.0	50	08/30/2017 02:27	WG1013682
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/25/2017 12:48	WG1013682
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/25/2017 12:48	WG1013682
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/25/2017 12:48	WG1013682
1,1,2-Trichloroethane	U		0.186	0.500	1	08/25/2017 12:48	WG1013682
Trichloroethene	8.34		0.153	0.500	1	08/25/2017 12:48	WG1013682
Trichlorofluoromethane	U		0.130	2.50	1	08/25/2017 12:48	WG1013682
1,2,3-Trichloropropane	U		0.247	2.50	1	08/25/2017 12:48	WG1013682
1,2,4-Trimethylbenzene	0.376 U	<u>BJ</u>	0.123	0.500	1	08/25/2017 12:48	WG1013682
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/25/2017 12:48	WG1013682
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/25/2017 12:48	WG1013682
Vinyl acetate	U		0.645	5.00	1	08/25/2017 12:48	WG1013682
Vinyl chloride	0.160 J	<u>J</u>	0.118	0.500	1	08/25/2017 12:48	WG1013682
Xylenes, Total	1.67		0.316	1.50	1	08/25/2017 12:48	WG1013682
(S) Toluene-d8	102			80.0-120		08/30/2017 02:27	WG1013682
(S) Toluene-d8	119			80.0-120		08/25/2017 12:48	WG1013682
(S) Dibromofluoromethane	102			76.0-123		08/30/2017 02:27	WG1013682
(S) Dibromofluoromethane	101			76.0-123		08/25/2017 12:48	WG1013682
(S) 4-Bromofluorobenzene	101			80.0-120		08/25/2017 12:48	WG1013682
(S) 4-Bromofluorobenzene	101			80.0-120		08/30/2017 02:27	WG1013682

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/2017



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.93	J	1.05	25.0	1	08/25/2017 12:08	WG1013682
Acrylonitrile	U		0.873	5.00	1	08/25/2017 12:08	WG1013682
Benzene	0.155	J	0.0896	0.500	1	08/25/2017 12:08	WG1013682
Bromobenzene	U		0.133	0.500	1	08/25/2017 12:08	WG1013682
Bromodichloromethane	U		0.0800	0.500	1	08/25/2017 12:08	WG1013682
Bromochloromethane	U		0.145	0.500	1	08/25/2017 12:08	WG1013682
Bromoform	U		0.186	0.500	1	08/25/2017 12:08	WG1013682
Bromomethane	U		0.157	2.50	1	08/25/2017 12:08	WG1013682
n-Butylbenzene	U		0.143	0.500	1	08/25/2017 12:08	WG1013682
sec-Butylbenzene	U		0.134	0.500	1	08/25/2017 12:08	WG1013682
tert-Butylbenzene	U		0.183	0.500	1	08/25/2017 12:08	WG1013682
Carbon disulfide	U		0.101	0.500	1	08/25/2017 12:08	WG1013682
Carbon tetrachloride	U		0.159	0.500	1	08/25/2017 12:08	WG1013682
Chlorobenzene	U		0.140	0.500	1	08/25/2017 12:08	WG1013682
Chlorodibromomethane	U		0.128	0.500	1	08/25/2017 12:08	WG1013682
Chloroethane	U		0.141	2.50	1	08/25/2017 12:08	WG1013682
Chloroform	U		0.0860	0.500	1	08/25/2017 12:08	WG1013682
Chloromethane	U		0.153	1.25	1	08/25/2017 12:08	WG1013682
2-Chlorotoluene	U		0.111	0.500	1	08/25/2017 12:08	WG1013682
4-Chlorotoluene	U		0.0972	0.500	1	08/25/2017 12:08	WG1013682
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/25/2017 12:08	WG1013682
1,2-Dibromoethane	U		0.193	0.500	1	08/25/2017 12:08	WG1013682
Dibromomethane	U		0.117	0.500	1	08/25/2017 12:08	WG1013682
1,2-Dichlorobenzene	U		0.101	0.500	1	08/25/2017 12:08	WG1013682
1,3-Dichlorobenzene	U		0.130	0.500	1	08/25/2017 12:08	WG1013682
1,4-Dichlorobenzene	U		0.121	0.500	1	08/25/2017 12:08	WG1013682
Dichlorodifluoromethane	U		0.127	2.50	1	08/25/2017 12:08	WG1013682
1,1-Dichloroethane	U		0.114	0.500	1	08/25/2017 12:08	WG1013682
1,2-Dichloroethane	U		0.108	0.500	1	08/25/2017 12:08	WG1013682
1,1-Dichloroethene	U		0.188	0.500	1	08/25/2017 12:08	WG1013682
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/25/2017 12:08	WG1013682
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/25/2017 12:08	WG1013682
1,2-Dichloropropane	U		0.190	0.500	1	08/25/2017 12:08	WG1013682
1,1-Dichloropropene	U		0.128	0.500	1	08/25/2017 12:08	WG1013682
1,3-Dichloropropane	U		0.147	1.00	1	08/25/2017 12:08	WG1013682
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/25/2017 12:08	WG1013682
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/25/2017 12:08	WG1013682
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/25/2017 12:08	WG1013682
2,2-Dichloropropane	U		0.0929	0.500	1	08/25/2017 12:08	WG1013682
Di-isopropyl ether	U		0.0924	0.500	1	08/25/2017 12:08	WG1013682
Ethylbenzene	U		0.158	0.500	1	08/25/2017 12:08	WG1013682
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/25/2017 12:08	WG1013682
2-Hexanone	U		0.757	5.00	1	08/25/2017 12:08	WG1013682
n-Hexane	U		0.305	5.00	1	08/25/2017 12:08	WG1013682
Iodomethane	U		0.377	10.0	1	08/25/2017 12:08	WG1013682
Isopropylbenzene	U		0.126	0.500	1	08/25/2017 12:08	WG1013682
p-Isopropyltoluene	U		0.138	0.500	1	08/25/2017 12:08	WG1013682
2-Butanone (MEK)	U		1.28	5.00	1	08/25/2017 12:08	WG1013682
Methylene Chloride	U		1.07	2.50	1	08/25/2017 12:08	WG1013682
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/25/2017 12:08	WG1013682
Methyl tert-butyl ether	U		0.102	0.500	1	08/25/2017 12:08	WG1013682
Naphthalene	0.479	B J	0.174	2.50	1	08/25/2017 12:08	WG1013682
n-Propylbenzene	U		0.162	0.500	1	08/25/2017 12:08	WG1013682
Styrene	U		0.117	0.500	1	08/25/2017 12:08	WG1013682
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/25/2017 12:08	WG1013682
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/25/2017 12:08	WG1013682

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

JC 9/19/2017



Collected date/time: 08/21/17 00:00

L931390

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/25/2017 12:08	WG1013682
Tetrachloroethene	U		0.199	0.500	1	08/25/2017 12:08	WG1013682
Toluene	U		0.412	0.500	1	08/25/2017 12:08	WG1013682
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/25/2017 12:08	WG1013682
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/25/2017 12:08	WG1013682
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/25/2017 12:08	WG1013682
1,1,2-Trichloroethane	U		0.186	0.500	1	08/25/2017 12:08	WG1013682
Trichloroethene	U		0.153	0.500	1	08/25/2017 12:08	WG1013682
Trichlorofluoromethane	U		0.130	2.50	1	08/25/2017 12:08	WG1013682
1,2,3-Trichloropropane	U		0.247	2.50	1	08/25/2017 12:08	WG1013682
1,2,4-Trimethylbenzene	0.161	<u>BJ</u>	0.123	0.500	1	08/25/2017 12:08	WG1013682
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/25/2017 12:08	WG1013682
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/25/2017 12:08	WG1013682
Vinyl acetate	U		0.645	5.00	1	08/25/2017 12:08	WG1013682
Vinyl chloride	U		0.118	0.500	1	08/25/2017 12:08	WG1013682
Xylenes, Total	U		0.316	1.50	1	08/25/2017 12:08	WG1013682
(S) Toluene-d8	106			80.0-120		08/25/2017 12:08	WG1013682
(S) Dibromofluoromethane	104			76.0-123		08/25/2017 12:08	WG1013682
(S) 4-Bromofluorobenzene	99.9			80.0-120		08/25/2017 12:08	WG1013682

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/2017



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.7		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0366	0.108	1	08/27/2017 04:04	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	95.9			77.0-120		08/27/2017 04:04	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0108	0.0539	1	08/25/2017 06:19	WG1013442
Acrylonitrile	U		0.00193	0.0108	1	08/25/2017 06:19	WG1013442
Benzene	U		0.000291	0.00108	1	08/25/2017 06:19	WG1013442
Bromobenzene	U		0.000306	0.00108	1	08/25/2017 06:19	WG1013442
Bromodichloromethane	U		0.000274	0.00108	1	08/25/2017 06:19	WG1013442
Bromochloromethane	U		0.000421	0.00539	1	08/25/2017 06:19	WG1013442
Bromoform	U		0.000457	0.00108	1	08/25/2017 06:19	WG1013442
Bromomethane	U		0.00145	0.00539	1	08/25/2017 06:19	WG1013442
n-Butylbenzene	U		0.000278	0.00108	1	08/25/2017 06:19	WG1013442
sec-Butylbenzene	U		0.000217	0.00108	1	08/25/2017 06:19	WG1013442
tert-Butylbenzene	U		0.000222	0.00108	1	08/25/2017 06:19	WG1013442
Carbon disulfide	0.000803 J	J	0.000238	0.00108	1	08/25/2017 06:19	WG1013442
Carbon tetrachloride	U		0.000354	0.00108	1	08/25/2017 06:19	WG1013442
Chlorobenzene	U		0.000229	0.00108	1	08/25/2017 06:19	WG1013442
Chlorodibromomethane	U		0.000402	0.00108	1	08/25/2017 06:19	WG1013442
Chloroethane	U		0.00102	0.00539	1	08/25/2017 06:19	WG1013442
Chloroform	U		0.000247	0.00539	1	08/25/2017 06:19	WG1013442
Chloromethane	U UJ	JO	0.000405	0.00270	1	08/25/2017 06:19	WG1013442
2-Chlorotoluene	U		0.000325	0.00108	1	08/25/2017 06:19	WG1013442
4-Chlorotoluene	U		0.000259	0.00108	1	08/25/2017 06:19	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00113	0.00539	1	08/25/2017 06:19	WG1013442
1,2-Dibromoethane	U		0.000370	0.00108	1	08/25/2017 06:19	WG1013442
Dibromomethane	U		0.000412	0.00108	1	08/25/2017 06:19	WG1013442
1,2-Dichlorobenzene	U		0.000329	0.00108	1	08/25/2017 06:19	WG1013442
1,3-Dichlorobenzene	U		0.000258	0.00108	1	08/25/2017 06:19	WG1013442
1,4-Dichlorobenzene	U		0.000244	0.00108	1	08/25/2017 06:19	WG1013442
Dichlorodifluoromethane	U UJ	JO J4	0.000769	0.00539	1	08/25/2017 06:19	WG1013442
1,1-Dichloroethane	U		0.000215	0.00108	1	08/25/2017 06:19	WG1013442
1,2-Dichloroethane	U		0.000286	0.00108	1	08/25/2017 06:19	WG1013442
1,1-Dichloroethene	U		0.000327	0.00108	1	08/25/2017 06:19	WG1013442
cis-1,2-Dichloroethene	0.0115		0.000254	0.00108	1	08/25/2017 06:19	WG1013442
trans-1,2-Dichloroethene	U		0.000285	0.00108	1	08/25/2017 06:19	WG1013442
1,2-Dichloropropane	U		0.000386	0.00108	1	08/25/2017 06:19	WG1013442
1,1-Dichloropropene	U		0.000342	0.00108	1	08/25/2017 06:19	WG1013442
1,3-Dichloropropane	U		0.000223	0.00108	1	08/25/2017 06:19	WG1013442
cis-1,3-Dichloropropene	U		0.000283	0.00108	1	08/25/2017 06:19	WG1013442
trans-1,3-Dichloropropene	U		0.000288	0.00108	1	08/25/2017 06:19	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000839	0.00270	1	08/25/2017 06:19	WG1013442
2,2-Dichloropropane	U		0.000301	0.00108	1	08/25/2017 06:19	WG1013442
Di-isopropyl ether	U		0.000268	0.00108	1	08/25/2017 06:19	WG1013442
Ethylbenzene	U		0.000320	0.00108	1	08/25/2017 06:19	WG1013442
Hexachloro-1,3-butadiene	U		0.000369	0.00108	1	08/25/2017 06:19	WG1013442
2-Hexanone	U		0.00148	0.0108	1	08/25/2017 06:19	WG1013442
n-Hexane	0.00741 J	J	0.000313	0.0108	1	08/25/2017 06:19	WG1013442

6 Qc

7 Gl

8 Al

9 Sc

JC 9/19/2017



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00273	0.0108	1	08/25/2017 06:19	WG1013442
Isopropylbenzene	U		0.000262	0.00108	1	08/25/2017 06:19	WG1013442
p-Isopropyltoluene	U		0.000220	0.00108	1	08/25/2017 06:19	WG1013442
2-Butanone (MEK)	U		0.00505	0.0108	1	08/25/2017 06:19	WG1013442
Methylene Chloride	U		0.00108	0.00539	1	08/25/2017 06:19	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00203	0.0108	1	08/25/2017 06:19	WG1013442
Methyl tert-butyl ether	U		0.000229	0.00108	1	08/25/2017 06:19	WG1013442
Naphthalene	U		0.00108	0.00539	1	08/25/2017 06:19	WG1013442
n-Propylbenzene	U		0.000222	0.00108	1	08/25/2017 06:19	WG1013442
Styrene	U		0.000252	0.00108	1	08/25/2017 06:19	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000285	0.00108	1	08/25/2017 06:19	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000394	0.00108	1	08/25/2017 06:19	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000394	0.00108	1	08/25/2017 06:19	WG1013442
Tetrachloroethene	U		0.000298	0.00108	1	08/25/2017 06:19	WG1013442
Toluene	U		0.000468	0.00539	1	08/25/2017 06:19	WG1013442
1,2,3-Trichlorobenzene	U		0.000330	0.00108	1	08/25/2017 06:19	WG1013442
1,2,4-Trichlorobenzene	U		0.000419	0.00108	1	08/25/2017 06:19	WG1013442
1,1,1-Trichloroethane	U		0.000309	0.00108	1	08/25/2017 06:19	WG1013442
1,1,2-Trichloroethane	U		0.000299	0.00108	1	08/25/2017 06:19	WG1013442
Trichloroethene	U		0.000301	0.00108	1	08/25/2017 06:19	WG1013442
Trichlorofluoromethane	U		0.000412	0.00539	1	08/25/2017 06:19	WG1013442
1,2,3-Trichloropropane	U		0.000799	0.00270	1	08/25/2017 06:19	WG1013442
1,2,4-Trimethylbenzene	U		0.000228	0.00108	1	08/25/2017 06:19	WG1013442
1,2,3-Trimethylbenzene	U		0.000310	0.00108	1	08/25/2017 06:19	WG1013442
1,3,5-Trimethylbenzene	U		0.000287	0.00108	1	08/25/2017 06:19	WG1013442
Vinyl acetate	U		0.00258	0.0108	1	08/25/2017 06:19	WG1013442
Vinyl chloride	U	J4	0.000314	0.00108	1	08/25/2017 06:19	WG1013442
Xylenes, Total	U		0.000753	0.00324	1	08/25/2017 06:19	WG1013442
(S) Toluene-d8	97.6			80.0-120		08/25/2017 06:19	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 06:19	WG1013442
(S) 4-Bromofluorobenzene	94.8			64.0-132		08/25/2017 06:19	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/2017



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0374	0.110	1	08/27/2017 04:52	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.2			77.0-120		08/27/2017 04:52	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0110	0.0552	1	08/25/2017 06:40	WG1013442
Acrylonitrile	U		0.00198	0.0110	1	08/25/2017 06:40	WG1013442
Benzene	U		0.000298	0.00110	1	08/25/2017 06:40	WG1013442
Bromobenzene	U		0.000314	0.00110	1	08/25/2017 06:40	WG1013442
Bromodichloromethane	U		0.000281	0.00110	1	08/25/2017 06:40	WG1013442
Bromochloromethane	U		0.000431	0.00552	1	08/25/2017 06:40	WG1013442
Bromoform	U		0.000468	0.00110	1	08/25/2017 06:40	WG1013442
Bromomethane	U	J3	0.00148	0.00552	1	08/25/2017 06:40	WG1013442
n-Butylbenzene	U		0.000285	0.00110	1	08/25/2017 06:40	WG1013442
sec-Butylbenzene	U		0.000222	0.00110	1	08/25/2017 06:40	WG1013442
tert-Butylbenzene	U		0.000228	0.00110	1	08/25/2017 06:40	WG1013442
Carbon disulfide	U	J3	0.000244	0.00110	1	08/25/2017 06:40	WG1013442
Carbon tetrachloride	U		0.000362	0.00110	1	08/25/2017 06:40	WG1013442
Chlorobenzene	U		0.000234	0.00110	1	08/25/2017 06:40	WG1013442
Chlorodibromomethane	U		0.000412	0.00110	1	08/25/2017 06:40	WG1013442
Chloroethane	U	J3	0.00104	0.00552	1	08/25/2017 06:40	WG1013442
Chloroform	U		0.000253	0.00552	1	08/25/2017 06:40	WG1013442
Chloromethane	U UJ	JO J3	0.000414	0.00276	1	08/25/2017 06:40	WG1013442
2-Chlorotoluene	U		0.000332	0.00110	1	08/25/2017 06:40	WG1013442
4-Chlorotoluene	U		0.000265	0.00110	1	08/25/2017 06:40	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00116	0.00552	1	08/25/2017 06:40	WG1013442
1,2-Dibromoethane	U		0.000379	0.00110	1	08/25/2017 06:40	WG1013442
Dibromomethane	U		0.000422	0.00110	1	08/25/2017 06:40	WG1013442
1,2-Dichlorobenzene	U		0.000337	0.00110	1	08/25/2017 06:40	WG1013442
1,3-Dichlorobenzene	U		0.000264	0.00110	1	08/25/2017 06:40	WG1013442
1,4-Dichlorobenzene	U		0.000250	0.00110	1	08/25/2017 06:40	WG1013442
Dichlorodifluoromethane	U UJ	JO J3 J4	0.000787	0.00552	1	08/25/2017 06:40	WG1013442
1,1-Dichloroethane	U		0.000220	0.00110	1	08/25/2017 06:40	WG1013442
1,2-Dichloroethane	U		0.000293	0.00110	1	08/25/2017 06:40	WG1013442
1,1-Dichloroethene	U		0.000335	0.00110	1	08/25/2017 06:40	WG1013442
cis-1,2-Dichloroethene	0.000500 J	J	0.000260	0.00110	1	08/25/2017 06:40	WG1013442
trans-1,2-Dichloroethene	U		0.000292	0.00110	1	08/25/2017 06:40	WG1013442
1,2-Dichloropropane	U		0.000395	0.00110	1	08/25/2017 06:40	WG1013442
1,1-Dichloropropene	U		0.000350	0.00110	1	08/25/2017 06:40	WG1013442
1,3-Dichloropropane	U		0.000229	0.00110	1	08/25/2017 06:40	WG1013442
cis-1,3-Dichloropropene	U		0.000289	0.00110	1	08/25/2017 06:40	WG1013442
trans-1,3-Dichloropropene	U		0.000295	0.00110	1	08/25/2017 06:40	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000859	0.00276	1	08/25/2017 06:40	WG1013442
2,2-Dichloropropane	U		0.000308	0.00110	1	08/25/2017 06:40	WG1013442
Di-isopropyl ether	U		0.000274	0.00110	1	08/25/2017 06:40	WG1013442
Ethylbenzene	U		0.000328	0.00110	1	08/25/2017 06:40	WG1013442
Hexachloro-1,3-butadiene	U		0.000378	0.00110	1	08/25/2017 06:40	WG1013442
2-Hexanone	U		0.00151	0.0110	1	08/25/2017 06:40	WG1013442
n-Hexane	U	J3	0.000320	0.0110	1	08/25/2017 06:40	WG1013442

6 Qc

7 Gl

8 Al

9 Sc

JC 9/19/2017



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00279	0.0110	1	08/25/2017 06:40	WG1013442
Isopropylbenzene	U		0.000268	0.00110	1	08/25/2017 06:40	WG1013442
p-Isopropyltoluene	U		0.000225	0.00110	1	08/25/2017 06:40	WG1013442
2-Butanone (MEK)	U		0.00517	0.0110	1	08/25/2017 06:40	WG1013442
Methylene Chloride	U		0.00110	0.00552	1	08/25/2017 06:40	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00208	0.0110	1	08/25/2017 06:40	WG1013442
Methyl tert-butyl ether	U		0.000234	0.00110	1	08/25/2017 06:40	WG1013442
Naphthalene	U		0.00110	0.00552	1	08/25/2017 06:40	WG1013442
n-Propylbenzene	U		0.000228	0.00110	1	08/25/2017 06:40	WG1013442
Styrene	U		0.000258	0.00110	1	08/25/2017 06:40	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000292	0.00110	1	08/25/2017 06:40	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000403	0.00110	1	08/25/2017 06:40	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000403	0.00110	1	08/25/2017 06:40	WG1013442
Tetrachloroethene	U		0.000305	0.00110	1	08/25/2017 06:40	WG1013442
Toluene	U		0.000479	0.00552	1	08/25/2017 06:40	WG1013442
1,2,3-Trichlorobenzene	U		0.000338	0.00110	1	08/25/2017 06:40	WG1013442
1,2,4-Trichlorobenzene	U		0.000429	0.00110	1	08/25/2017 06:40	WG1013442
1,1,1-Trichloroethane	U		0.000316	0.00110	1	08/25/2017 06:40	WG1013442
1,1,2-Trichloroethane	U		0.000306	0.00110	1	08/25/2017 06:40	WG1013442
Trichloroethene	U		0.000308	0.00110	1	08/25/2017 06:40	WG1013442
Trichlorofluoromethane	U	J3	0.000422	0.00552	1	08/25/2017 06:40	WG1013442
1,2,3-Trichloropropane	U		0.000818	0.00276	1	08/25/2017 06:40	WG1013442
1,2,4-Trimethylbenzene	U		0.000233	0.00110	1	08/25/2017 06:40	WG1013442
1,2,3-Trimethylbenzene	U		0.000317	0.00110	1	08/25/2017 06:40	WG1013442
1,3,5-Trimethylbenzene	U		0.000294	0.00110	1	08/25/2017 06:40	WG1013442
Vinyl acetate	U		0.00264	0.0110	1	08/25/2017 06:40	WG1013442
Vinyl chloride	0.000485	J J J3 J4	0.000321	0.00110	1	08/25/2017 06:40	WG1013442
Xylenes, Total	U		0.000771	0.00331	1	08/25/2017 06:40	WG1013442
(S) Toluene-d8	97.2			80.0-120		08/25/2017 06:40	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 06:40	WG1013442
(S) 4-Bromofluorobenzene	98.3			64.0-132		08/25/2017 06:40	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

JC 9/19/2017



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.2		1	08/28/2017 16:45	WG1013768

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0403	0.119	1	08/27/2017 05:14	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		08/27/2017 05:14	WG1013897

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0119	0.0594	1	08/25/2017 07:01	WG1013442
Acrylonitrile	U		0.00213	0.0119	1	08/25/2017 07:01	WG1013442
Benzene	U		0.000321	0.00119	1	08/25/2017 07:01	WG1013442
Bromobenzene	U		0.000337	0.00119	1	08/25/2017 07:01	WG1013442
Bromodichloromethane	U		0.000302	0.00119	1	08/25/2017 07:01	WG1013442
Bromochloromethane	U		0.000463	0.00594	1	08/25/2017 07:01	WG1013442
Bromoform	U		0.000504	0.00119	1	08/25/2017 07:01	WG1013442
Bromomethane	U	J3	0.00159	0.00594	1	08/25/2017 07:01	WG1013442
n-Butylbenzene	U		0.000306	0.00119	1	08/25/2017 07:01	WG1013442
sec-Butylbenzene	U		0.000239	0.00119	1	08/25/2017 07:01	WG1013442
tert-Butylbenzene	U		0.000245	0.00119	1	08/25/2017 07:01	WG1013442
Carbon disulfide	U	J3	0.000262	0.00119	1	08/25/2017 07:01	WG1013442
Carbon tetrachloride	U		0.000390	0.00119	1	08/25/2017 07:01	WG1013442
Chlorobenzene	U		0.000252	0.00119	1	08/25/2017 07:01	WG1013442
Chlorodibromomethane	U		0.000443	0.00119	1	08/25/2017 07:01	WG1013442
Chloroethane	U	J3	0.00112	0.00594	1	08/25/2017 07:01	WG1013442
Chloroform	U		0.000272	0.00594	1	08/25/2017 07:01	WG1013442
Chloromethane	U	UJ J0 J3	0.000445	0.00297	1	08/25/2017 07:01	WG1013442
2-Chlorotoluene	U		0.000357	0.00119	1	08/25/2017 07:01	WG1013442
4-Chlorotoluene	U		0.000285	0.00119	1	08/25/2017 07:01	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00125	0.00594	1	08/25/2017 07:01	WG1013442
1,2-Dibromoethane	U		0.000407	0.00119	1	08/25/2017 07:01	WG1013442
Dibromomethane	U		0.000454	0.00119	1	08/25/2017 07:01	WG1013442
1,2-Dichlorobenzene	U		0.000362	0.00119	1	08/25/2017 07:01	WG1013442
1,3-Dichlorobenzene	U		0.000284	0.00119	1	08/25/2017 07:01	WG1013442
1,4-Dichlorobenzene	U		0.000268	0.00119	1	08/25/2017 07:01	WG1013442
Dichlorodifluoromethane	U	UJ J0 J3 J4	0.000847	0.00594	1	08/25/2017 07:01	WG1013442
1,1-Dichloroethane	U		0.000236	0.00119	1	08/25/2017 07:01	WG1013442
1,2-Dichloroethane	U		0.000315	0.00119	1	08/25/2017 07:01	WG1013442
1,1-Dichloroethene	U		0.000360	0.00119	1	08/25/2017 07:01	WG1013442
cis-1,2-Dichloroethene	0.000837J	J	0.000279	0.00119	1	08/25/2017 07:01	WG1013442
trans-1,2-Dichloroethene	U		0.000314	0.00119	1	08/25/2017 07:01	WG1013442
1,2-Dichloropropane	U		0.000425	0.00119	1	08/25/2017 07:01	WG1013442
1,1-Dichloropropene	U		0.000376	0.00119	1	08/25/2017 07:01	WG1013442
1,3-Dichloropropane	U		0.000246	0.00119	1	08/25/2017 07:01	WG1013442
cis-1,3-Dichloropropene	U		0.000311	0.00119	1	08/25/2017 07:01	WG1013442
trans-1,3-Dichloropropene	U		0.000317	0.00119	1	08/25/2017 07:01	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000924	0.00297	1	08/25/2017 07:01	WG1013442
2,2-Dichloropropane	U		0.000331	0.00119	1	08/25/2017 07:01	WG1013442
Di-isopropyl ether	U		0.000295	0.00119	1	08/25/2017 07:01	WG1013442
Ethylbenzene	U		0.000353	0.00119	1	08/25/2017 07:01	WG1013442
Hexachloro-1,3-butadiene	U		0.000406	0.00119	1	08/25/2017 07:01	WG1013442
2-Hexanone	U		0.00163	0.0119	1	08/25/2017 07:01	WG1013442
n-Hexane	U	J3	0.000344	0.0119	1	08/25/2017 07:01	WG1013442

6 Qc

7 Gl

8 Al

9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00300	0.0119	1	08/25/2017 07:01	WG1013442
Isopropylbenzene	U		0.000289	0.00119	1	08/25/2017 07:01	WG1013442
p-Isopropyltoluene	U		0.000242	0.00119	1	08/25/2017 07:01	WG1013442
2-Butanone (MEK)	U		0.00556	0.0119	1	08/25/2017 07:01	WG1013442
Methylene Chloride	U		0.00119	0.00594	1	08/25/2017 07:01	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00223	0.0119	1	08/25/2017 07:01	WG1013442
Methyl tert-butyl ether	U		0.000252	0.00119	1	08/25/2017 07:01	WG1013442
Naphthalene	U		0.00119	0.00594	1	08/25/2017 07:01	WG1013442
n-Propylbenzene	U		0.000245	0.00119	1	08/25/2017 07:01	WG1013442
Styrene	U		0.000278	0.00119	1	08/25/2017 07:01	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000314	0.00119	1	08/25/2017 07:01	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000433	0.00119	1	08/25/2017 07:01	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000433	0.00119	1	08/25/2017 07:01	WG1013442
Tetrachloroethene	U		0.000328	0.00119	1	08/25/2017 07:01	WG1013442
Toluene	U		0.000515	0.00594	1	08/25/2017 07:01	WG1013442
1,2,3-Trichlorobenzene	U		0.000363	0.00119	1	08/25/2017 07:01	WG1013442
1,2,4-Trichlorobenzene	U		0.000461	0.00119	1	08/25/2017 07:01	WG1013442
1,1,1-Trichloroethane	U		0.000340	0.00119	1	08/25/2017 07:01	WG1013442
1,1,2-Trichloroethane	U		0.000329	0.00119	1	08/25/2017 07:01	WG1013442
Trichloroethene	U		0.000331	0.00119	1	08/25/2017 07:01	WG1013442
Trichlorofluoromethane	U	J3	0.000454	0.00594	1	08/25/2017 07:01	WG1013442
1,2,3-Trichloropropane	U		0.000880	0.00297	1	08/25/2017 07:01	WG1013442
1,2,4-Trimethylbenzene	U		0.000251	0.00119	1	08/25/2017 07:01	WG1013442
1,2,3-Trimethylbenzene	U		0.000341	0.00119	1	08/25/2017 07:01	WG1013442
1,3,5-Trimethylbenzene	U		0.000316	0.00119	1	08/25/2017 07:01	WG1013442
Vinyl acetate	U		0.00284	0.0119	1	08/25/2017 07:01	WG1013442
Vinyl chloride	U	J3 J4	0.000346	0.00119	1	08/25/2017 07:01	WG1013442
Xylenes, Total	U		0.000829	0.00356	1	08/25/2017 07:01	WG1013442
(S) Toluene-d8	98.2			80.0-120		08/25/2017 07:01	WG1013442
(S) Dibromofluoromethane	100			74.0-131		08/25/2017 07:01	WG1013442
(S) 4-Bromofluorobenzene	97.4			64.0-132		08/25/2017 07:01	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.7		1	08/28/2017 16:45	WG1013768

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0378	0.112	1	08/27/2017 05:36	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	97.3			77.0-120		08/27/2017 05:36	WG1013897

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0112	0.0558	1	08/25/2017 07:21	WG1013442
Acrylonitrile	U		0.00200	0.0112	1	08/25/2017 07:21	WG1013442
Benzene	U		0.000301	0.00112	1	08/25/2017 07:21	WG1013442
Bromobenzene	U		0.000317	0.00112	1	08/25/2017 07:21	WG1013442
Bromodichloromethane	U		0.000283	0.00112	1	08/25/2017 07:21	WG1013442
Bromochloromethane	U		0.000435	0.00558	1	08/25/2017 07:21	WG1013442
Bromoform	U		0.000473	0.00112	1	08/25/2017 07:21	WG1013442
Bromomethane	U	J3	0.00149	0.00558	1	08/25/2017 07:21	WG1013442
n-Butylbenzene	U		0.000288	0.00112	1	08/25/2017 07:21	WG1013442
sec-Butylbenzene	U		0.000224	0.00112	1	08/25/2017 07:21	WG1013442
tert-Butylbenzene	U		0.000230	0.00112	1	08/25/2017 07:21	WG1013442
Carbon disulfide	U	J3	0.000246	0.00112	1	08/25/2017 07:21	WG1013442
Carbon tetrachloride	U		0.000366	0.00112	1	08/25/2017 07:21	WG1013442
Chlorobenzene	U		0.000236	0.00112	1	08/25/2017 07:21	WG1013442
Chlorodibromomethane	U		0.000416	0.00112	1	08/25/2017 07:21	WG1013442
Chloroethane	U	J3	0.00105	0.00558	1	08/25/2017 07:21	WG1013442
Chloroform	U		0.000255	0.00558	1	08/25/2017 07:21	WG1013442
Chloromethane	U	UJ, J0 J3	0.000418	0.00279	1	08/25/2017 07:21	WG1013442
2-Chlorotoluene	U		0.000336	0.00112	1	08/25/2017 07:21	WG1013442
4-Chlorotoluene	U		0.000268	0.00112	1	08/25/2017 07:21	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00558	1	08/25/2017 07:21	WG1013442
1,2-Dibromoethane	U		0.000382	0.00112	1	08/25/2017 07:21	WG1013442
Dibromomethane	U		0.000426	0.00112	1	08/25/2017 07:21	WG1013442
1,2-Dichlorobenzene	U		0.000340	0.00112	1	08/25/2017 07:21	WG1013442
1,3-Dichlorobenzene	U		0.000266	0.00112	1	08/25/2017 07:21	WG1013442
1,4-Dichlorobenzene	U		0.000252	0.00112	1	08/25/2017 07:21	WG1013442
Dichlorodifluoromethane	U	UJ, J0 J3 J4	0.000795	0.00558	1	08/25/2017 07:21	WG1013442
1,1-Dichloroethane	U		0.000222	0.00112	1	08/25/2017 07:21	WG1013442
1,2-Dichloroethane	U		0.000295	0.00112	1	08/25/2017 07:21	WG1013442
1,1-Dichloroethene	U		0.000338	0.00112	1	08/25/2017 07:21	WG1013442
cis-1,2-Dichloroethene	0.0108		0.000262	0.00112	1	08/25/2017 07:21	WG1013442
trans-1,2-Dichloroethene	0.000443	J, J	0.000294	0.00112	1	08/25/2017 07:21	WG1013442
1,2-Dichloropropane	U		0.000399	0.00112	1	08/25/2017 07:21	WG1013442
1,1-Dichloropropene	U		0.000353	0.00112	1	08/25/2017 07:21	WG1013442
1,3-Dichloropropane	U		0.000231	0.00112	1	08/25/2017 07:21	WG1013442
cis-1,3-Dichloropropene	U		0.000292	0.00112	1	08/25/2017 07:21	WG1013442
trans-1,3-Dichloropropene	U		0.000298	0.00112	1	08/25/2017 07:21	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000868	0.00279	1	08/25/2017 07:21	WG1013442
2,2-Dichloropropane	U		0.000311	0.00112	1	08/25/2017 07:21	WG1013442
Di-isopropyl ether	U		0.000277	0.00112	1	08/25/2017 07:21	WG1013442
Ethylbenzene	U		0.000331	0.00112	1	08/25/2017 07:21	WG1013442
Hexachloro-1,3-butadiene	U		0.000381	0.00112	1	08/25/2017 07:21	WG1013442
2-Hexanone	U		0.00153	0.0112	1	08/25/2017 07:21	WG1013442
n-Hexane	U	J3	0.000323	0.0112	1	08/25/2017 07:21	WG1013442

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- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00282	0.0112	1	08/25/2017 07:21	WG1013442
Isopropylbenzene	U		0.000271	0.00112	1	08/25/2017 07:21	WG1013442
p-Isopropyltoluene	U		0.000227	0.00112	1	08/25/2017 07:21	WG1013442
2-Butanone (MEK)	U		0.00522	0.0112	1	08/25/2017 07:21	WG1013442
Methylene Chloride	U		0.00112	0.00558	1	08/25/2017 07:21	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00210	0.0112	1	08/25/2017 07:21	WG1013442
Methyl tert-butyl ether	U		0.000236	0.00112	1	08/25/2017 07:21	WG1013442
Naphthalene	U		0.00112	0.00558	1	08/25/2017 07:21	WG1013442
n-Propylbenzene	U		0.000230	0.00112	1	08/25/2017 07:21	WG1013442
Styrene	U		0.000261	0.00112	1	08/25/2017 07:21	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000294	0.00112	1	08/25/2017 07:21	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000407	0.00112	1	08/25/2017 07:21	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000407	0.00112	1	08/25/2017 07:21	WG1013442
Tetrachloroethene	0.000312 J	J	0.000308	0.00112	1	08/25/2017 07:21	WG1013442
Toluene	U		0.000484	0.00558	1	08/25/2017 07:21	WG1013442
1,2,3-Trichlorobenzene	U		0.000341	0.00112	1	08/25/2017 07:21	WG1013442
1,2,4-Trichlorobenzene	U		0.000433	0.00112	1	08/25/2017 07:21	WG1013442
1,1,1-Trichloroethane	U		0.000319	0.00112	1	08/25/2017 07:21	WG1013442
1,1,2-Trichloroethane	U		0.000309	0.00112	1	08/25/2017 07:21	WG1013442
Trichloroethene	0.000380 J	J	0.000311	0.00112	1	08/25/2017 07:21	WG1013442
Trichlorofluoromethane	U	J3	0.000426	0.00558	1	08/25/2017 07:21	WG1013442
1,2,3-Trichloropropane	U		0.000826	0.00279	1	08/25/2017 07:21	WG1013442
1,2,4-Trimethylbenzene	U		0.000235	0.00112	1	08/25/2017 07:21	WG1013442
1,2,3-Trimethylbenzene	U		0.000320	0.00112	1	08/25/2017 07:21	WG1013442
1,3,5-Trimethylbenzene	U		0.000297	0.00112	1	08/25/2017 07:21	WG1013442
Vinyl acetate	U		0.00266	0.0112	1	08/25/2017 07:21	WG1013442
Vinyl chloride	0.00217	J3 J4	0.000324	0.00112	1	08/25/2017 07:21	WG1013442
Xylenes, Total	U		0.000778	0.00335	1	08/25/2017 07:21	WG1013442
(S) Toluene-d8	98.2			80.0-120		08/25/2017 07:21	WG1013442
(S) Dibromofluoromethane	102			74.0-131		08/25/2017 07:21	WG1013442
(S) 4-Bromofluorobenzene	94.5			64.0-132		08/25/2017 07:21	WG1013442

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.4		1	08/28/2017 16:45	WG1013768

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		0.0379	0.112	1	08/27/2017 05:58	WG1013897
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		08/27/2017 05:58	WG1013897

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0112	0.0559	1	08/25/2017 07:42	WG1013442
Acrylonitrile	U		0.00200	0.0112	1	08/25/2017 07:42	WG1013442
Benzene	U		0.000302	0.00112	1	08/25/2017 07:42	WG1013442
Bromobenzene	U		0.000318	0.00112	1	08/25/2017 07:42	WG1013442
Bromodichloromethane	U		0.000284	0.00112	1	08/25/2017 07:42	WG1013442
Bromochloromethane	U		0.000436	0.00559	1	08/25/2017 07:42	WG1013442
Bromoform	U		0.000474	0.00112	1	08/25/2017 07:42	WG1013442
Bromomethane	U	J3	0.00150	0.00559	1	08/25/2017 07:42	WG1013442
n-Butylbenzene	U		0.000289	0.00112	1	08/25/2017 07:42	WG1013442
sec-Butylbenzene	U		0.000225	0.00112	1	08/25/2017 07:42	WG1013442
tert-Butylbenzene	U		0.000230	0.00112	1	08/25/2017 07:42	WG1013442
Carbon disulfide	0.00118	J3	0.000247	0.00112	1	08/25/2017 07:42	WG1013442
Carbon tetrachloride	U		0.000367	0.00112	1	08/25/2017 07:42	WG1013442
Chlorobenzene	U		0.000237	0.00112	1	08/25/2017 07:42	WG1013442
Chlorodibromomethane	U		0.000417	0.00112	1	08/25/2017 07:42	WG1013442
Chloroethane	U	J3	0.00106	0.00559	1	08/25/2017 07:42	WG1013442
Chloroform	U		0.000256	0.00559	1	08/25/2017 07:42	WG1013442
Chloromethane	U UJ	JO J3	0.000420	0.00280	1	08/25/2017 07:42	WG1013442
2-Chlorotoluene	U		0.000337	0.00112	1	08/25/2017 07:42	WG1013442
4-Chlorotoluene	U		0.000269	0.00112	1	08/25/2017 07:42	WG1013442
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00559	1	08/25/2017 07:42	WG1013442
1,2-Dibromoethane	U		0.000384	0.00112	1	08/25/2017 07:42	WG1013442
Dibromomethane	U		0.000427	0.00112	1	08/25/2017 07:42	WG1013442
1,2-Dichlorobenzene	U		0.000341	0.00112	1	08/25/2017 07:42	WG1013442
1,3-Dichlorobenzene	U		0.000267	0.00112	1	08/25/2017 07:42	WG1013442
1,4-Dichlorobenzene	U		0.000253	0.00112	1	08/25/2017 07:42	WG1013442
Dichlorodifluoromethane	U UJ	JO J3 J4	0.000798	0.00559	1	08/25/2017 07:42	WG1013442
1,1-Dichloroethane	U		0.000223	0.00112	1	08/25/2017 07:42	WG1013442
1,2-Dichloroethane	U		0.000297	0.00112	1	08/25/2017 07:42	WG1013442
1,1-Dichloroethene	U		0.000339	0.00112	1	08/25/2017 07:42	WG1013442
cis-1,2-Dichloroethene	0.00506		0.000263	0.00112	1	08/25/2017 07:42	WG1013442
trans-1,2-Dichloroethene	U		0.000295	0.00112	1	08/25/2017 07:42	WG1013442
1,2-Dichloropropane	U		0.000401	0.00112	1	08/25/2017 07:42	WG1013442
1,1-Dichloropropene	U		0.000355	0.00112	1	08/25/2017 07:42	WG1013442
1,3-Dichloropropane	U		0.000232	0.00112	1	08/25/2017 07:42	WG1013442
cis-1,3-Dichloropropene	U		0.000293	0.00112	1	08/25/2017 07:42	WG1013442
trans-1,3-Dichloropropene	U		0.000299	0.00112	1	08/25/2017 07:42	WG1013442
trans-1,4-Dichloro-2-butene	U		0.000871	0.00280	1	08/25/2017 07:42	WG1013442
2,2-Dichloropropane	U		0.000312	0.00112	1	08/25/2017 07:42	WG1013442
Di-isopropyl ether	U		0.000277	0.00112	1	08/25/2017 07:42	WG1013442
Ethylbenzene	U		0.000332	0.00112	1	08/25/2017 07:42	WG1013442
Hexachloro-1,3-butadiene	U		0.000383	0.00112	1	08/25/2017 07:42	WG1013442
2-Hexanone	U		0.00153	0.0112	1	08/25/2017 07:42	WG1013442
n-Hexane	U	J3	0.000324	0.0112	1	08/25/2017 07:42	WG1013442

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- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Iodomethane	U		0.00283	0.0112	1	08/25/2017 07:42	WG1013442
Isopropylbenzene	U		0.000272	0.00112	1	08/25/2017 07:42	WG1013442
p-Isopropyltoluene	U		0.000228	0.00112	1	08/25/2017 07:42	WG1013442
2-Butanone (MEK)	U		0.00524	0.0112	1	08/25/2017 07:42	WG1013442
Methylene Chloride	U		0.00112	0.00559	1	08/25/2017 07:42	WG1013442
4-Methyl-2-pentanone (MIBK)	U		0.00210	0.0112	1	08/25/2017 07:42	WG1013442
Methyl tert-butyl ether	U		0.000237	0.00112	1	08/25/2017 07:42	WG1013442
Naphthalene	U		0.00112	0.00559	1	08/25/2017 07:42	WG1013442
n-Propylbenzene	U		0.000230	0.00112	1	08/25/2017 07:42	WG1013442
Styrene	U		0.000262	0.00112	1	08/25/2017 07:42	WG1013442
1,1,1,2-Tetrachloroethane	U		0.000295	0.00112	1	08/25/2017 07:42	WG1013442
1,1,2,2-Tetrachloroethane	U		0.000408	0.00112	1	08/25/2017 07:42	WG1013442
1,1,2-Trichlorotrifluoroethane	U		0.000408	0.00112	1	08/25/2017 07:42	WG1013442
Tetrachloroethene	0.00166		0.000309	0.00112	1	08/25/2017 07:42	WG1013442
Toluene	U		0.000486	0.00559	1	08/25/2017 07:42	WG1013442
1,2,3-Trichlorobenzene	U		0.000342	0.00112	1	08/25/2017 07:42	WG1013442
1,2,4-Trichlorobenzene	U		0.000434	0.00112	1	08/25/2017 07:42	WG1013442
1,1,1-Trichloroethane	U		0.000320	0.00112	1	08/25/2017 07:42	WG1013442
1,1,2-Trichloroethane	U		0.000310	0.00112	1	08/25/2017 07:42	WG1013442
Trichloroethene	U		0.000312	0.00112	1	08/25/2017 07:42	WG1013442
Trichlorofluoromethane	U	J3	0.000427	0.00559	1	08/25/2017 07:42	WG1013442
1,2,3-Trichloropropane	U		0.000829	0.00280	1	08/25/2017 07:42	WG1013442
1,2,4-Trimethylbenzene	U		0.000236	0.00112	1	08/25/2017 07:42	WG1013442
1,2,3-Trimethylbenzene	U		0.000321	0.00112	1	08/25/2017 07:42	WG1013442
1,3,5-Trimethylbenzene	U		0.000298	0.00112	1	08/25/2017 07:42	WG1013442
Vinyl acetate	U		0.00267	0.0112	1	08/25/2017 07:42	WG1013442
Vinyl chloride	0.00377	UJ J3 J4	0.000326	0.00112	1	08/25/2017 07:42	WG1013442
Xylenes, Total	U		0.000781	0.00336	1	08/25/2017 07:42	WG1013442
(S) Toluene-d8	95.4			80.0-120		08/25/2017 07:42	WG1013442
(S) Dibromofluoromethane	103			74.0-131		08/25/2017 07:42	WG1013442
(S) 4-Bromofluorobenzene	94.4			64.0-132		08/25/2017 07:42	WG1013442

- 1 Cp
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JC 9/19/2017