

**APPENDIX
J-6**

ANALYTICAL DATA REPORTS AND DATA VALIDATION REVIEW MEMOS

May-June 2018

PES Environmental, Inc.- WA

Sample Delivery Group: L989898
Samples Received: 05/01/2018
Project Number:
Description: American Linen

Report To: Brian O'Neal/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-143-043018 L989898-01 GW

Collected by
Jeff Dobbins

Collected date/time
04/30/18 08:58

Received date/time
05/01/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1107742	1	05/07/18 18:29	05/07/18 18:29	MCG
Wet Chemistry by Method 9056A	WG1105262	1	05/02/18 01:28	05/02/18 01:28	MAJ
Wet Chemistry by Method 9060A	WG1106165	20	05/02/18 22:38	05/02/18 22:38	SJM
Metals (ICPMS) by Method 6020A	WG1105579	1	05/02/18 17:43	05/02/18 21:23	LD
Metals (ICPMS) by Method 6020A	WG1105579	5	05/02/18 17:43	05/02/18 23:16	LD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1105159	1	05/01/18 20:33	05/01/18 20:33	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1107967	1	05/08/18 10:20	05/08/18 10:20	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105522	1	05/01/18 19:49	05/01/18 19:49	JHH

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

MW-158-043018 L989898-02 GW

Collected by
Jeff Dobbins

Collected date/time
04/30/18 11:14

Received date/time
05/01/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1107742	1	05/07/18 18:37	05/07/18 18:37	MCG
Wet Chemistry by Method 9056A	WG1105262	1	05/02/18 01:59	05/02/18 01:59	MAJ
Wet Chemistry by Method 9056A	WG1105262	5	05/02/18 02:14	05/02/18 02:14	MAJ
Wet Chemistry by Method 9060A	WG1106165	20	05/02/18 22:49	05/02/18 22:49	SJM
Metals (ICPMS) by Method 6020A	WG1105579	1	05/02/18 17:43	05/02/18 21:28	LD
Metals (ICPMS) by Method 6020A	WG1105579	50	05/02/18 17:43	05/02/18 22:38	LD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1105159	1	05/01/18 20:57	05/01/18 20:57	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1107967	1	05/08/18 10:25	05/08/18 10:25	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105522	1	05/01/18 20:08	05/01/18 20:08	JHH

7
Gl

8
Al

9
Sc

MW-154-043018 L989898-03 GW

Collected by
Jeff Dobbins

Collected date/time
04/30/18 12:46

Received date/time
05/01/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1105159	1	05/02/18 16:27	05/02/18 16:27	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105522	1	05/01/18 20:27	05/01/18 20:27	JHH

MW-146-043018 L989898-04 GW

Collected by
Jeff Dobbins

Collected date/time
04/30/18 13:50

Received date/time
05/01/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1107742	1	05/07/18 18:44	05/07/18 18:44	MCG
Wet Chemistry by Method 9056A	WG1105262	1	05/02/18 02:30	05/02/18 02:30	MAJ
Wet Chemistry by Method 9060A	WG1106165	1	05/02/18 23:01	05/02/18 23:01	SJM
Metals (ICPMS) by Method 6020A	WG1105579	1	05/02/18 17:43	05/02/18 21:32	LD
Metals (ICPMS) by Method 6020A	WG1105579	20	05/02/18 17:43	05/02/18 22:43	LD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1105159	1	05/02/18 17:05	05/02/18 17:05	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1107967	1	05/08/18 10:27	05/08/18 10:27	BG
Volatile Organic Compounds (GC) by Method RSK175	WG1107969	10	05/08/18 13:22	05/08/18 13:22	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105522	1	05/01/18 20:45	05/01/18 20:45	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105522	100	05/07/18 21:47	05/07/18 21:47	ACG



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.

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	448000		2710	20000	1	05/07/2018 18:29	WG1107742

Sample Narrative:

L989898-01 WG1107742: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	66500		51.9	1000	1	05/02/2018 01:28	WG1105262
Nitrate	U		22.7	100	1	05/02/2018 01:28	WG1105262
Sulfate	4960	J	77.4	5000	1	05/02/2018 01:28	WG1105262

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)	25500		2040	20000	20	05/02/2018 22:38	WG1106165

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2080		75.0	500	5	05/02/2018 23:16	WG1105579
Manganese	390		0.250	5.00	1	05/02/2018 21:23	WG1105579

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	154	B	31.6	100	1	05/01/2018 20:33	WG1105159
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/01/2018 20:33	WG1105159

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	6720		0.287	0.678	1	05/08/2018 10:20	WG1107967
Ethane	92.5		0.296	1.29	1	05/08/2018 10:20	WG1107967
Ethene	360		0.422	1.27	1	05/08/2018 10:20	WG1107967

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	6.00	J	1.05	25.0	1	05/01/2018 19:49	WG1105522
Acrylonitrile	U		0.873	5.00	1	05/01/2018 19:49	WG1105522
Benzene	0.244	J	0.0896	0.500	1	05/01/2018 19:49	WG1105522
Bromobenzene	U		0.133	0.500	1	05/01/2018 19:49	WG1105522
Bromodichloromethane	U		0.0800	0.500	1	05/01/2018 19:49	WG1105522
Bromochloromethane	U		0.145	0.500	1	05/01/2018 19:49	WG1105522
Bromoform	U		0.186	0.500	1	05/01/2018 19:49	WG1105522
Bromomethane	U		0.157	2.50	1	05/01/2018 19:49	WG1105522
n-Butylbenzene	U		0.143	0.500	1	05/01/2018 19:49	WG1105522
sec-Butylbenzene	U		0.134	0.500	1	05/01/2018 19:49	WG1105522
tert-Butylbenzene	U		0.183	0.500	1	05/01/2018 19:49	WG1105522
Carbon disulfide	1.45		0.101	0.500	1	05/01/2018 19:49	WG1105522
Carbon tetrachloride	U		0.159	0.500	1	05/01/2018 19:49	WG1105522

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
Chlorobenzene	U		0.140	0.500	1	05/01/2018 19:49	WG105522
Chlorodibromomethane	U		0.128	0.500	1	05/01/2018 19:49	WG105522
Chloroethane	U		0.141	2.50	1	05/01/2018 19:49	WG105522
Chloroform	U		0.0860	0.500	1	05/01/2018 19:49	WG105522
Chloromethane	U		0.153	1.25	1	05/01/2018 19:49	WG105522
2-Chlorotoluene	U		0.111	0.500	1	05/01/2018 19:49	WG105522
4-Chlorotoluene	U		0.0972	0.500	1	05/01/2018 19:49	WG105522
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/01/2018 19:49	WG105522
1,2-Dibromoethane	U		0.193	0.500	1	05/01/2018 19:49	WG105522
Dibromomethane	U		0.117	0.500	1	05/01/2018 19:49	WG105522
1,2-Dichlorobenzene	U		0.101	0.500	1	05/01/2018 19:49	WG105522
1,3-Dichlorobenzene	U		0.130	0.500	1	05/01/2018 19:49	WG105522
1,4-Dichlorobenzene	U		0.121	0.500	1	05/01/2018 19:49	WG105522
Dichlorodifluoromethane	U		0.127	2.50	1	05/01/2018 19:49	WG105522
1,1-Dichloroethane	U		0.114	0.500	1	05/01/2018 19:49	WG105522
1,2-Dichloroethane	U		0.108	0.500	1	05/01/2018 19:49	WG105522
1,1-Dichloroethene	0.342	U	0.188	0.500	1	05/01/2018 19:49	WG105522
cis-1,2-Dichloroethene	129		0.0933	0.500	1	05/01/2018 19:49	WG105522
trans-1,2-Dichloroethene	0.512		0.152	0.500	1	05/01/2018 19:49	WG105522
1,2-Dichloropropane	U		0.190	0.500	1	05/01/2018 19:49	WG105522
1,1-Dichloropropene	U		0.128	0.500	1	05/01/2018 19:49	WG105522
1,3-Dichloropropane	U		0.147	1.00	1	05/01/2018 19:49	WG105522
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/01/2018 19:49	WG105522
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/01/2018 19:49	WG105522
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/01/2018 19:49	WG105522
2,2-Dichloropropane	U		0.0929	0.500	1	05/01/2018 19:49	WG105522
Di-isopropyl ether	U		0.0924	0.500	1	05/01/2018 19:49	WG105522
Ethylbenzene	0.212	U	0.158	0.500	1	05/01/2018 19:49	WG105522
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/01/2018 19:49	WG105522
2-Hexanone	U		0.757	5.00	1	05/01/2018 19:49	WG105522
n-Hexane	U		0.305	5.00	1	05/01/2018 19:49	WG105522
Iodomethane	U		0.377	10.0	1	05/01/2018 19:49	WG105522
Isopropylbenzene	U		0.126	0.500	1	05/01/2018 19:49	WG105522
p-Isopropyltoluene	U		0.138	0.500	1	05/01/2018 19:49	WG105522
2-Butanone (MEK)	1.81	U	1.28	5.00	1	05/01/2018 19:49	WG105522
Methylene Chloride	U		1.07	2.50	1	05/01/2018 19:49	WG105522
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/01/2018 19:49	WG105522
Methyl tert-butyl ether	U		0.102	0.500	1	05/01/2018 19:49	WG105522
Naphthalene	U		0.174	2.50	1	05/01/2018 19:49	WG105522
n-Propylbenzene	U		0.162	0.500	1	05/01/2018 19:49	WG105522
Styrene	U		0.117	0.500	1	05/01/2018 19:49	WG105522
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/01/2018 19:49	WG105522
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/01/2018 19:49	WG105522
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/01/2018 19:49	WG105522
Tetrachloroethene	U		0.199	0.500	1	05/01/2018 19:49	WG105522
Toluene	0.797		0.412	0.500	1	05/01/2018 19:49	WG105522
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/01/2018 19:49	WG105522
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/01/2018 19:49	WG105522
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/01/2018 19:49	WG105522
1,1,2-Trichloroethane	U		0.186	0.500	1	05/01/2018 19:49	WG105522
Trichloroethene	U		0.153	0.500	1	05/01/2018 19:49	WG105522
Trichlorofluoromethane	U		0.130	2.50	1	05/01/2018 19:49	WG105522
1,2,3-Trichloropropane	U		0.247	2.50	1	05/01/2018 19:49	WG105522
1,2,4-Trimethylbenzene	0.482	U	0.123	0.500	1	05/01/2018 19:49	WG105522
1,2,3-Trimethylbenzene	0.192	U	0.0739	0.500	1	05/01/2018 19:49	WG105522
1,3,5-Trimethylbenzene	0.173	U	0.124	0.500	1	05/01/2018 19:49	WG105522

- 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
Vinyl acetate	U		0.645	5.00	1	05/01/2018 19:49	WG1105522
Vinyl chloride	193		0.118	0.500	1	05/01/2018 19:49	WG1105522
Xylenes, Total	1.08	J	0.316	1.50	1	05/01/2018 19:49	WG1105522
<i>(S) Toluene-d8</i>	104			80.0-120		05/01/2018 19:49	WG1105522
<i>(S) Dibromofluoromethane</i>	99.7			76.0-123		05/01/2018 19:49	WG1105522
<i>(S) 4-Bromofluorobenzene</i>	94.7			80.0-120		05/01/2018 19:49	WG1105522

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	345000		2710	20000	1	05/07/2018 18:37	WG1107742

Sample Narrative:

L989898-02 WG1107742: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	113000		260	5000	5	05/02/2018 02:14	WG1105262
Nitrate	446		22.7	100	1	05/02/2018 01:59	WG1105262
Sulfate	278000		387	25000	5	05/02/2018 02:14	WG1105262

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)	54800		2040	20000	20	05/02/2018 22:49	WG1106165

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	55400		750	5000	50	05/02/2018 22:38	WG1105579
Manganese	1040		0.250	5.00	1	05/02/2018 21:28	WG1105579

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	101	<u>B</u>	31.6	100	1	05/01/2018 20:57	WG1105159
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/01/2018 20:57	WG1105159

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	352		0.287	0.678	1	05/08/2018 10:25	WG1107967
Ethane	15.7		0.296	1.29	1	05/08/2018 10:25	WG1107967
Ethene	11.0		0.422	1.27	1	05/08/2018 10:25	WG1107967

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>J</u>	1.05	25.0	1	05/01/2018 20:08	WG1105522
Acrylonitrile	U		0.873	5.00	1	05/01/2018 20:08	WG1105522
Benzene	U		0.0896	0.500	1	05/01/2018 20:08	WG1105522
Bromobenzene	U		0.133	0.500	1	05/01/2018 20:08	WG1105522
Bromodichloromethane	U		0.0800	0.500	1	05/01/2018 20:08	WG1105522
Bromochloromethane	U		0.145	0.500	1	05/01/2018 20:08	WG1105522
Bromoform	U		0.186	0.500	1	05/01/2018 20:08	WG1105522
Bromomethane	U		0.157	2.50	1	05/01/2018 20:08	WG1105522
n-Butylbenzene	U		0.143	0.500	1	05/01/2018 20:08	WG1105522
sec-Butylbenzene	U		0.134	0.500	1	05/01/2018 20:08	WG1105522
tert-Butylbenzene	U		0.183	0.500	1	05/01/2018 20:08	WG1105522
Carbon disulfide	0.580		0.101	0.500	1	05/01/2018 20:08	WG1105522
Carbon tetrachloride	U		0.159	0.500	1	05/01/2018 20:08	WG1105522

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
Chlorobenzene	U		0.140	0.500	1	05/01/2018 20:08	WG105522
Chlorodibromomethane	U		0.128	0.500	1	05/01/2018 20:08	WG105522
Chloroethane	U		0.141	2.50	1	05/01/2018 20:08	WG105522
Chloroform	1.29		0.0860	0.500	1	05/01/2018 20:08	WG105522
Chloromethane	U		0.153	1.25	1	05/01/2018 20:08	WG105522
2-Chlorotoluene	U		0.111	0.500	1	05/01/2018 20:08	WG105522
4-Chlorotoluene	U		0.0972	0.500	1	05/01/2018 20:08	WG105522
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/01/2018 20:08	WG105522
1,2-Dibromoethane	U		0.193	0.500	1	05/01/2018 20:08	WG105522
Dibromomethane	U		0.117	0.500	1	05/01/2018 20:08	WG105522
1,2-Dichlorobenzene	U		0.101	0.500	1	05/01/2018 20:08	WG105522
1,3-Dichlorobenzene	U		0.130	0.500	1	05/01/2018 20:08	WG105522
1,4-Dichlorobenzene	U		0.121	0.500	1	05/01/2018 20:08	WG105522
Dichlorodifluoromethane	U		0.127	2.50	1	05/01/2018 20:08	WG105522
1,1-Dichloroethane	U		0.114	0.500	1	05/01/2018 20:08	WG105522
1,2-Dichloroethane	U		0.108	0.500	1	05/01/2018 20:08	WG105522
1,1-Dichloroethene	0.189	U	0.188	0.500	1	05/01/2018 20:08	WG105522
cis-1,2-Dichloroethene	59.6		0.0933	0.500	1	05/01/2018 20:08	WG105522
trans-1,2-Dichloroethene	0.205	U	0.152	0.500	1	05/01/2018 20:08	WG105522
1,2-Dichloropropane	U		0.190	0.500	1	05/01/2018 20:08	WG105522
1,1-Dichloropropene	U		0.128	0.500	1	05/01/2018 20:08	WG105522
1,3-Dichloropropane	U		0.147	1.00	1	05/01/2018 20:08	WG105522
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/01/2018 20:08	WG105522
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/01/2018 20:08	WG105522
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/01/2018 20:08	WG105522
2,2-Dichloropropane	U		0.0929	0.500	1	05/01/2018 20:08	WG105522
Di-isopropyl ether	U		0.0924	0.500	1	05/01/2018 20:08	WG105522
Ethylbenzene	U		0.158	0.500	1	05/01/2018 20:08	WG105522
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/01/2018 20:08	WG105522
2-Hexanone	U		0.757	5.00	1	05/01/2018 20:08	WG105522
n-Hexane	U		0.305	5.00	1	05/01/2018 20:08	WG105522
Iodomethane	U		0.377	10.0	1	05/01/2018 20:08	WG105522
Isopropylbenzene	U		0.126	0.500	1	05/01/2018 20:08	WG105522
p-Isopropyltoluene	U		0.138	0.500	1	05/01/2018 20:08	WG105522
2-Butanone (MEK)	U		1.28	5.00	1	05/01/2018 20:08	WG105522
Methylene Chloride	U		1.07	2.50	1	05/01/2018 20:08	WG105522
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/01/2018 20:08	WG105522
Methyl tert-butyl ether	U		0.102	0.500	1	05/01/2018 20:08	WG105522
Naphthalene	U		0.174	2.50	1	05/01/2018 20:08	WG105522
n-Propylbenzene	U		0.162	0.500	1	05/01/2018 20:08	WG105522
Styrene	U		0.117	0.500	1	05/01/2018 20:08	WG105522
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/01/2018 20:08	WG105522
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/01/2018 20:08	WG105522
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/01/2018 20:08	WG105522
Tetrachloroethene	17.7		0.199	0.500	1	05/01/2018 20:08	WG105522
Toluene	2.66		0.412	0.500	1	05/01/2018 20:08	WG105522
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/01/2018 20:08	WG105522
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/01/2018 20:08	WG105522
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/01/2018 20:08	WG105522
1,1,2-Trichloroethane	U		0.186	0.500	1	05/01/2018 20:08	WG105522
Trichloroethene	18.7		0.153	0.500	1	05/01/2018 20:08	WG105522
Trichlorofluoromethane	U		0.130	2.50	1	05/01/2018 20:08	WG105522
1,2,3-Trichloropropane	U		0.247	2.50	1	05/01/2018 20:08	WG105522
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/01/2018 20:08	WG105522
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/01/2018 20:08	WG105522
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/01/2018 20:08	WG105522

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
Vinyl acetate	U		0.645	5.00	1	05/01/2018 20:08	WG1105522
Vinyl chloride	8.91		0.118	0.500	1	05/01/2018 20:08	WG1105522
Xylenes, Total	U		0.316	1.50	1	05/01/2018 20:08	WG1105522
<i>(S) Toluene-d8</i>	107			80.0-120		05/01/2018 20:08	WG1105522
<i>(S) Dibromofluoromethane</i>	89.2			76.0-123		05/01/2018 20:08	WG1105522
<i>(S) 4-Bromofluorobenzene</i>	93.7			80.0-120		05/01/2018 20:08	WG1105522

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	32.1	<u>B</u> <u>J</u>	31.6	100	1	05/02/2018 16:27	WG1105159
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-122		05/02/2018 16:27	WG1105159

- 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	12.9	<u>J</u>	1.05	25.0	1	05/01/2018 20:27	WG1105522
Acrylonitrile	U		0.873	5.00	1	05/01/2018 20:27	WG1105522
Benzene	U		0.0896	0.500	1	05/01/2018 20:27	WG1105522
Bromobenzene	U		0.133	0.500	1	05/01/2018 20:27	WG1105522
Bromodichloromethane	U		0.0800	0.500	1	05/01/2018 20:27	WG1105522
Bromochloromethane	U		0.145	0.500	1	05/01/2018 20:27	WG1105522
Bromoform	U		0.186	0.500	1	05/01/2018 20:27	WG1105522
Bromomethane	U		0.157	2.50	1	05/01/2018 20:27	WG1105522
n-Butylbenzene	U		0.143	0.500	1	05/01/2018 20:27	WG1105522
sec-Butylbenzene	U		0.134	0.500	1	05/01/2018 20:27	WG1105522
tert-Butylbenzene	U		0.183	0.500	1	05/01/2018 20:27	WG1105522
Carbon disulfide	U		0.101	0.500	1	05/01/2018 20:27	WG1105522
Carbon tetrachloride	U		0.159	0.500	1	05/01/2018 20:27	WG1105522
Chlorobenzene	U		0.140	0.500	1	05/01/2018 20:27	WG1105522
Chlorodibromomethane	U		0.128	0.500	1	05/01/2018 20:27	WG1105522
Chloroethane	U		0.141	2.50	1	05/01/2018 20:27	WG1105522
Chloroform	U		0.0860	0.500	1	05/01/2018 20:27	WG1105522
Chloromethane	U		0.153	1.25	1	05/01/2018 20:27	WG1105522
2-Chlorotoluene	U		0.111	0.500	1	05/01/2018 20:27	WG1105522
4-Chlorotoluene	U		0.0972	0.500	1	05/01/2018 20:27	WG1105522
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/01/2018 20:27	WG1105522
1,2-Dibromoethane	U		0.193	0.500	1	05/01/2018 20:27	WG1105522
Dibromomethane	U		0.117	0.500	1	05/01/2018 20:27	WG1105522
1,2-Dichlorobenzene	U		0.101	0.500	1	05/01/2018 20:27	WG1105522
1,3-Dichlorobenzene	U		0.130	0.500	1	05/01/2018 20:27	WG1105522
1,4-Dichlorobenzene	U		0.121	0.500	1	05/01/2018 20:27	WG1105522
Dichlorodifluoromethane	U		0.127	2.50	1	05/01/2018 20:27	WG1105522
1,1-Dichloroethane	U		0.114	0.500	1	05/01/2018 20:27	WG1105522
1,2-Dichloroethane	U		0.108	0.500	1	05/01/2018 20:27	WG1105522
1,1-Dichloroethene	U		0.188	0.500	1	05/01/2018 20:27	WG1105522
cis-1,2-Dichloroethene	1.77		0.0933	0.500	1	05/01/2018 20:27	WG1105522
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/01/2018 20:27	WG1105522
1,2-Dichloropropane	U		0.190	0.500	1	05/01/2018 20:27	WG1105522
1,1-Dichloropropene	U		0.128	0.500	1	05/01/2018 20:27	WG1105522
1,3-Dichloropropane	U		0.147	1.00	1	05/01/2018 20:27	WG1105522
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/01/2018 20:27	WG1105522
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/01/2018 20:27	WG1105522
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/01/2018 20:27	WG1105522
2,2-Dichloropropane	U		0.0929	0.500	1	05/01/2018 20:27	WG1105522
Di-isopropyl ether	U		0.0924	0.500	1	05/01/2018 20:27	WG1105522
Ethylbenzene	U		0.158	0.500	1	05/01/2018 20:27	WG1105522
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/01/2018 20:27	WG1105522
2-Hexanone	U		0.757	5.00	1	05/01/2018 20:27	WG1105522
n-Hexane	U		0.305	5.00	1	05/01/2018 20:27	WG1105522
Iodomethane	U		0.377	10.0	1	05/01/2018 20:27	WG1105522
Isopropylbenzene	U		0.126	0.500	1	05/01/2018 20:27	WG1105522
p-Isopropyltoluene	U		0.138	0.500	1	05/01/2018 20:27	WG1105522
2-Butanone (MEK)	U		1.28	5.00	1	05/01/2018 20:27	WG1105522



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	05/01/2018 20:27	WG1105522
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/01/2018 20:27	WG1105522
Methyl tert-butyl ether	U		0.102	0.500	1	05/01/2018 20:27	WG1105522
Naphthalene	U		0.174	2.50	1	05/01/2018 20:27	WG1105522
n-Propylbenzene	U		0.162	0.500	1	05/01/2018 20:27	WG1105522
Styrene	U		0.117	0.500	1	05/01/2018 20:27	WG1105522
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/01/2018 20:27	WG1105522
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/01/2018 20:27	WG1105522
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/01/2018 20:27	WG1105522
Tetrachloroethene	4.46		0.199	0.500	1	05/01/2018 20:27	WG1105522
Toluene	U		0.412	0.500	1	05/01/2018 20:27	WG1105522
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/01/2018 20:27	WG1105522
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/01/2018 20:27	WG1105522
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/01/2018 20:27	WG1105522
1,1,2-Trichloroethane	U		0.186	0.500	1	05/01/2018 20:27	WG1105522
Trichloroethene	0.230	J	0.153	0.500	1	05/01/2018 20:27	WG1105522
Trichlorofluoromethane	U		0.130	2.50	1	05/01/2018 20:27	WG1105522
1,2,3-Trichloropropane	U		0.247	2.50	1	05/01/2018 20:27	WG1105522
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/01/2018 20:27	WG1105522
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/01/2018 20:27	WG1105522
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/01/2018 20:27	WG1105522
Vinyl acetate	U		0.645	5.00	1	05/01/2018 20:27	WG1105522
Vinyl chloride	7.48		0.118	0.500	1	05/01/2018 20:27	WG1105522
Xylenes, Total	U		0.316	1.50	1	05/01/2018 20:27	WG1105522
(S) Toluene-d8	107			80.0-120		05/01/2018 20:27	WG1105522
(S) Dibromofluoromethane	92.4			76.0-123		05/01/2018 20:27	WG1105522
(S) 4-Bromofluorobenzene	94.0			80.0-120		05/01/2018 20:27	WG1105522

- 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	363000		2710	20000	1	05/07/2018 18:44	WG1107742

Sample Narrative:

L989898-04 WG1107742: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	30400		51.9	1000	1	05/02/2018 02:30	WG1105262
Nitrate	U		22.7	100	1	05/02/2018 02:30	WG1105262
Sulfate	22300		77.4	5000	1	05/02/2018 02:30	WG1105262

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)	4470		102	1000	1	05/02/2018 23:01	WG1106165

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	26500		300	2000	20	05/02/2018 22:43	WG1105579
Manganese	1260		0.250	5.00	1	05/02/2018 21:32	WG1105579

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	597		31.6	100	1	05/02/2018 17:05	WG1105159
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 17:05	WG1105159

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	9240		2.87	6.78	10	05/08/2018 13:22	WG1107969
Ethane	11.9		0.296	1.29	1	05/08/2018 10:27	WG1107967
Ethene	489		0.422	1.27	1	05/08/2018 10:27	WG1107967

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	4.54	J	1.05	25.0	1	05/01/2018 20:45	WG1105522
Acrylonitrile	U		0.873	5.00	1	05/01/2018 20:45	WG1105522
Benzene	U		0.0896	0.500	1	05/01/2018 20:45	WG1105522
Bromobenzene	U		0.133	0.500	1	05/01/2018 20:45	WG1105522
Bromodichloromethane	U		0.0800	0.500	1	05/01/2018 20:45	WG1105522
Bromochloromethane	U		0.145	0.500	1	05/01/2018 20:45	WG1105522
Bromoform	U		0.186	0.500	1	05/01/2018 20:45	WG1105522
Bromomethane	U		0.157	2.50	1	05/01/2018 20:45	WG1105522
n-Butylbenzene	U		0.143	0.500	1	05/01/2018 20:45	WG1105522
sec-Butylbenzene	U		0.134	0.500	1	05/01/2018 20:45	WG1105522
tert-Butylbenzene	U		0.183	0.500	1	05/01/2018 20:45	WG1105522
Carbon disulfide	U		0.101	0.500	1	05/01/2018 20:45	WG1105522
Carbon tetrachloride	U		0.159	0.500	1	05/01/2018 20:45	WG1105522

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
Chlorobenzene	U		0.140	0.500	1	05/01/2018 20:45	WG105522
Chlorodibromomethane	U		0.128	0.500	1	05/01/2018 20:45	WG105522
Chloroethane	1.05	J	0.141	2.50	1	05/01/2018 20:45	WG105522
Chloroform	U		0.0860	0.500	1	05/01/2018 20:45	WG105522
Chloromethane	U		0.153	1.25	1	05/01/2018 20:45	WG105522
2-Chlorotoluene	U		0.111	0.500	1	05/01/2018 20:45	WG105522
4-Chlorotoluene	U		0.0972	0.500	1	05/01/2018 20:45	WG105522
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/01/2018 20:45	WG105522
1,2-Dibromoethane	U		0.193	0.500	1	05/01/2018 20:45	WG105522
Dibromomethane	U		0.117	0.500	1	05/01/2018 20:45	WG105522
1,2-Dichlorobenzene	U		0.101	0.500	1	05/01/2018 20:45	WG105522
1,3-Dichlorobenzene	U		0.130	0.500	1	05/01/2018 20:45	WG105522
1,4-Dichlorobenzene	U		0.121	0.500	1	05/01/2018 20:45	WG105522
Dichlorodifluoromethane	U		0.127	2.50	1	05/01/2018 20:45	WG105522
1,1-Dichloroethane	U		0.114	0.500	1	05/01/2018 20:45	WG105522
1,2-Dichloroethane	U		0.108	0.500	1	05/01/2018 20:45	WG105522
1,1-Dichloroethene	4.02		0.188	0.500	1	05/01/2018 20:45	WG105522
cis-1,2-Dichloroethene	900		9.33	50.0	100	05/07/2018 21:47	WG105522
trans-1,2-Dichloroethene	6.12		0.152	0.500	1	05/01/2018 20:45	WG105522
1,2-Dichloropropane	U		0.190	0.500	1	05/01/2018 20:45	WG105522
1,1-Dichloropropene	U		0.128	0.500	1	05/01/2018 20:45	WG105522
1,3-Dichloropropane	U		0.147	1.00	1	05/01/2018 20:45	WG105522
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/01/2018 20:45	WG105522
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/01/2018 20:45	WG105522
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/01/2018 20:45	WG105522
2,2-Dichloropropane	U		0.0929	0.500	1	05/01/2018 20:45	WG105522
Di-isopropyl ether	U		0.0924	0.500	1	05/01/2018 20:45	WG105522
Ethylbenzene	U		0.158	0.500	1	05/01/2018 20:45	WG105522
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/01/2018 20:45	WG105522
2-Hexanone	U		0.757	5.00	1	05/01/2018 20:45	WG105522
n-Hexane	U		0.305	5.00	1	05/01/2018 20:45	WG105522
Iodomethane	U		0.377	10.0	1	05/01/2018 20:45	WG105522
Isopropylbenzene	U		0.126	0.500	1	05/01/2018 20:45	WG105522
p-Isopropyltoluene	U		0.138	0.500	1	05/01/2018 20:45	WG105522
2-Butanone (MEK)	U		1.28	5.00	1	05/01/2018 20:45	WG105522
Methylene Chloride	U		1.07	2.50	1	05/01/2018 20:45	WG105522
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/01/2018 20:45	WG105522
Methyl tert-butyl ether	U		0.102	0.500	1	05/01/2018 20:45	WG105522
Naphthalene	U		0.174	2.50	1	05/01/2018 20:45	WG105522
n-Propylbenzene	U		0.162	0.500	1	05/01/2018 20:45	WG105522
Styrene	U		0.117	0.500	1	05/01/2018 20:45	WG105522
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/01/2018 20:45	WG105522
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/01/2018 20:45	WG105522
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/01/2018 20:45	WG105522
Tetrachloroethene	3.56		0.199	0.500	1	05/01/2018 20:45	WG105522
Toluene	U		0.412	0.500	1	05/01/2018 20:45	WG105522
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/01/2018 20:45	WG105522
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/01/2018 20:45	WG105522
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/01/2018 20:45	WG105522
1,1,2-Trichloroethane	U		0.186	0.500	1	05/01/2018 20:45	WG105522
Trichloroethene	48.4		0.153	0.500	1	05/01/2018 20:45	WG105522
Trichlorofluoromethane	U		0.130	2.50	1	05/01/2018 20:45	WG105522
1,2,3-Trichloropropane	U		0.247	2.50	1	05/01/2018 20:45	WG105522
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/01/2018 20:45	WG105522
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/01/2018 20:45	WG105522
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/01/2018 20:45	WG105522

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
Vinyl acetate	U		0.645	5.00	1	05/01/2018 20:45	WG1105522
Vinyl chloride	2100		11.8	50.0	100	05/07/2018 21:47	WG1105522
Xylenes, Total	U		0.316	1.50	1	05/01/2018 20:45	WG1105522
(S) Toluene-d8	104			80.0-120		05/07/2018 21:47	WG1105522
(S) Toluene-d8	103			80.0-120		05/01/2018 20:45	WG1105522
(S) Dibromofluoromethane	98.7			76.0-123		05/07/2018 21:47	WG1105522
(S) Dibromofluoromethane	96.4			76.0-123		05/01/2018 20:45	WG1105522
(S) 4-Bromofluorobenzene	95.0			80.0-120		05/01/2018 20:45	WG1105522
(S) 4-Bromofluorobenzene	96.7			80.0-120		05/07/2018 21:47	WG1105522

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L990272-03 Original Sample (OS) • Duplicate (DUP)

(OS) L990272-03 05/07/18 16:12 • (DUP) R3307687-1 05/07/18 16:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l	%			
Alkalinity	9430	7970	1	16.8	J	20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L990101-07 Original Sample (OS) • Duplicate (DUP)

(OS) L990101-07 05/08/18 09:32 • (DUP) R3307687-9 05/08/18 09:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l	%			
Alkalinity	91400	94400	1	3.25		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

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

(LCS) R3307687-7 05/07/18 18:01 • (LCSD) R3307687-8 05/07/18 19:28

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	102000	105000	102	105	85.0-115			2.96	20

Sample Narrative:

LCS: Endpoint pH 4.5

LCSD: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3307900-1 05/01/18 14:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
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

L989895-06 Original Sample (OS) • Duplicate (DUP)

(OS) L989895-06 05/01/18 21:22 • (DUP) R3307900-4 05/01/18 21:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	6480	6020	1	7.37		15
Nitrate	U	0.000	1	0.000		15
Sulfate	3470	3700	1	6.57	↓	15

L989895-13 Original Sample (OS) • Duplicate (DUP)

(OS) L989895-13 05/02/18 00:11 • (DUP) R3307900-7 05/02/18 00:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	18600	18100	1	2.59		15
Nitrate	1140	1230	1	8.00		15
Sulfate	4240	4270	1	0.571	↓	15

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

(LCS) R3307900-2 05/01/18 14:19 • (LCSD) R3307900-3 05/01/18 14:35

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	%	%	%			%	%
Chloride	40000	40000	39900	100	99.9	80.0-120			0.116	15
Nitrate	8000	8100	8080	101	101	80.0-120			0.184	15
Sulfate	40000	39600	39900	99.0	99.7	80.0-120			0.672	15



L989895-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L989895-06 05/01/18 21:22 • (MS) R3307900-5 05/01/18 21:52 • (MSD) R3307900-6 05/01/18 22:08

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	6480	56800	56100	101	99.3	1	80.0-120			1.20	15
Nitrate	5000	U	4750	4920	95.0	98.3	1	80.0-120			3.48	15
Sulfate	50000	3470	52000	52200	97.0	97.5	1	80.0-120			0.459	15

L989895-13 Original Sample (OS) • Matrix Spike (MS)

(OS) L989895-13 05/02/18 00:11 • (MS) R3307900-8 05/02/18 00:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	18600	68300	99.4	1	80.0-120	
Nitrate	5000	1140	6050	98.2	1	80.0-120	
Sulfate	50000	4240	52400	96.3	1	80.0-120	

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



[L989898-01,02,04](#)

Method Blank (MB)

(MB) R3306614-1 05/02/18 18:59

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

L989892-04 Original Sample (OS) • Duplicate (DUP)

(OS) L989892-04 05/02/18 22:15 • (DUP) R3306614-3 05/02/18 22:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	7410	7650	1	3.27		20

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

(LCS) R3306614-2 05/02/18 19:31 • (LCSD) R3306614-4 05/02/18 23:54

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	71900	94.0	95.8	85.0-115			1.98	20

L989921-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L989921-01 05/03/18 00:43 • (MS) R3306614-5 05/03/18 01:04 • (MSD) R3306614-6 05/03/18 01:19

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	5520	57600	58100	104	105	1	80.0-120			0.881	20



Method Blank (MB)

(MB) R3306577-1 05/02/18 20:52

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) R3306577-2 05/02/18 20:57 • (LCSD) R3306577-3 05/02/18 21:01

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	4740	4690	94.9	93.9	80.0-120			1.03	20
Manganese	50.0	51.7	48.8	103	97.6	80.0-120			5.82	20

5 Sr

6 Qc

L990034-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L990034-21 05/02/18 21:05 • (MS) R3306577-5 05/02/18 21:14 • (MSD) R3306577-6 05/02/18 21:19

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	U	4650	4650	93.0	93.1	1	75.0-125			0.0819	20
Manganese	50.0	12.6	60.4	60.7	95.6	96.3	1	75.0-125			0.549	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3306336-3 05/01/18 10:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	41.2	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3306336-1 05/01/18 08:57 • (LCSD) R3306336-2 05/01/18 09:39

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	4730	4810	86.0	87.4	72.0-134			1.64	20
(S) a,a,a-Trifluorotoluene(FID)				93.8	93.3	77.0-122				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3307795-1 05/08/18 10:17

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

L989898-02 Original Sample (OS) • Duplicate (DUP)

(OS) L989898-02 05/08/18 10:25 • (DUP) R3307795-2 05/08/18 10:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	352	349	1	0.900		20
Ethane	15.7	15.3	1	3.03		20
Ethene	11.0	11.2	1	1.60		20

L989972-09 Original Sample (OS) • Duplicate (DUP)

(OS) L989972-09 05/08/18 11:03 • (DUP) R3307795-3 05/08/18 11:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	1080	1090	1	0.765		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) R3307795-4 05/08/18 11:41 • (LCSD) R3307795-5 05/08/18 11:44

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	71.2	72.4	105	107	85.0-115			1.68	20
Ethane	129	115	115	89.1	89.0	85.0-115			0.0186	20
Ethene	127	116	116	91.6	91.6	85.0-115			0.0834	20



Method Blank (MB)

(MB) R3307876-1 05/08/18 13:20

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

L990272-03 Original Sample (OS) • Duplicate (DUP)

(OS) L990272-03 05/08/18 13:35 • (DUP) R3307876-2 05/08/18 13:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	U	0.000	1	0.000		20

L990458-06 Original Sample (OS) • Duplicate (DUP)

(OS) L990458-06 05/08/18 14:25 • (DUP) R3307876-3 05/08/18 14:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	U	0.000	1	0.000		20

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

(LCS) R3307876-4 05/08/18 14:45 • (LCSD) R3307876-5 05/08/18 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	72.2	71.3	107	105	85.0-115			1.28	20



Method Blank (MB)

(MB) R3307623-2 05/01/18 17:30

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
Bromobenzene	U		0.133	0.500
Benzene	U		0.0896	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) R3307623-2 05/01/18 17:30

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	0.187	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
Ethylbenzene	U		0.158	0.500
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
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
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
Naphthalene	U		0.174	2.50
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Toluene	U		0.412	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	96.4			76.0-123
(S) 4-Bromofluorobenzene	96.9			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)

(LCS) R3307623-1 05/01/18 16:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Acetone	125	127	102	10.0-160	
Acrylonitrile	125	121	96.6	60.0-142	
Bromobenzene	25.0	23.1	92.2	79.0-120	
Bromodichloromethane	25.0	23.8	95.2	76.0-120	
Bromochloromethane	25.0	23.3	93.2	76.0-122	
Bromoform	25.0	23.1	92.5	67.0-132	
Bromomethane	25.0	26.7	107	18.0-160	
n-Butylbenzene	25.0	25.0	100	72.0-126	
sec-Butylbenzene	25.0	25.2	101	74.0-121	
tert-Butylbenzene	25.0	24.9	99.7	75.0-122	
Carbon disulfide	25.0	25.7	103	55.0-127	
Carbon tetrachloride	25.0	22.6	90.5	63.0-122	
Chlorobenzene	25.0	24.2	96.8	79.0-121	
Chlorodibromomethane	25.0	23.4	93.8	75.0-125	
Chloroethane	25.0	27.0	108	47.0-152	
Chloroform	25.0	24.1	96.5	72.0-121	
Chloromethane	25.0	28.0	112	48.0-139	
2-Chlorotoluene	25.0	23.8	95.0	74.0-122	
4-Chlorotoluene	25.0	23.9	95.5	79.0-120	
1,2-Dibromo-3-Chloropropane	25.0	23.3	93.1	64.0-127	
1,2-Dibromoethane	25.0	23.6	94.5	77.0-123	
Dibromomethane	25.0	23.8	95.1	78.0-120	
1,2-Dichlorobenzene	25.0	23.0	91.9	80.0-120	
1,3-Dichlorobenzene	25.0	23.9	95.5	72.0-123	
1,4-Dichlorobenzene	25.0	23.4	93.8	77.0-120	
Dichlorodifluoromethane	25.0	23.6	94.5	49.0-155	
1,1-Dichloroethane	25.0	25.5	102	70.0-126	
1,2-Dichloroethane	25.0	24.3	97.2	67.0-126	
1,1-Dichloroethene	25.0	25.1	100	64.0-129	
cis-1,2-Dichloroethene	25.0	24.1	96.4	73.0-120	
trans-1,2-Dichloroethene	25.0	23.9	95.5	71.0-121	
1,2-Dichloropropane	25.0	24.9	99.5	75.0-125	
1,1-Dichloropropene	25.0	25.4	102	71.0-129	
1,3-Dichloropropane	25.0	24.3	97.2	80.0-121	
cis-1,3-Dichloropropene	25.0	24.7	98.7	79.0-123	
trans-1,3-Dichloropropene	25.0	24.1	96.3	74.0-127	
trans-1,4-Dichloro-2-butene	25.0	25.3	101	55.0-134	
2,2-Dichloropropane	25.0	22.4	89.4	60.0-125	
Di-isopropyl ether	25.0	26.6	107	59.0-133	
Hexachloro-1,3-butadiene	25.0	25.4	102	64.0-131	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS)

(LCS) R3307623-1 05/01/18 16:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
2-Hexanone	125	129	103	58.0-147	
n-Hexane	25.0	25.9	104	56.0-124	
Iodomethane	125	122	97.2	57.0-140	
Isopropylbenzene	25.0	24.1	96.5	75.0-120	
p-Isopropyltoluene	25.0	24.8	99.3	74.0-126	
2-Butanone (MEK)	125	130	104	37.0-158	
Methylene Chloride	25.0	23.4	93.7	66.0-121	
4-Methyl-2-pentanone (MIBK)	125	130	104	59.0-143	
Benzene	25.0	24.3	97.3	69.0-123	
Methyl tert-butyl ether	25.0	23.2	92.9	64.0-123	
n-Propylbenzene	25.0	23.9	95.8	79.0-120	
Styrene	25.0	23.7	94.8	78.0-124	
1,1,1,2-Tetrachloroethane	25.0	23.5	94.2	75.0-122	
1,1,2,2-Tetrachloroethane	25.0	21.5	85.8	71.0-122	
1,1,2-Trichlorotrifluoroethane	25.0	24.8	99.0	61.0-136	
Tetrachloroethene	25.0	23.6	94.3	70.0-127	
1,2,3-Trichlorobenzene	25.0	23.1	92.4	61.0-133	
1,2,4-Trichlorobenzene	25.0	23.0	92.1	69.0-129	
1,1,1-Trichloroethane	25.0	24.6	98.2	68.0-122	
1,1,2-Trichloroethane	25.0	22.9	91.7	78.0-120	
Trichloroethene	25.0	25.1	100	78.0-120	
Trichlorofluoromethane	25.0	27.1	109	56.0-137	
1,2,3-Trichloropropane	25.0	22.5	90.1	72.0-124	
1,2,4-Trimethylbenzene	25.0	24.1	96.4	75.0-120	
1,2,3-Trimethylbenzene	25.0	24.0	96.0	75.0-120	
1,3,5-Trimethylbenzene	25.0	23.8	95.4	75.0-120	
Vinyl acetate	125	105	84.2	46.0-160	
Vinyl chloride	25.0	28.8	115	64.0-133	
Ethylbenzene	25.0	24.2	96.6	77.0-120	
Naphthalene	25.0	22.3	89.2	62.0-128	
Toluene	25.0	23.7	94.8	77.0-120	
Xylenes, Total	75.0	72.3	96.4	77.0-120	
(S) Toluene-d8			102	80.0-120	
(S) Dibromofluoromethane			96.7	76.0-123	
(S) 4-Bromofluorobenzene			97.9	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 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.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

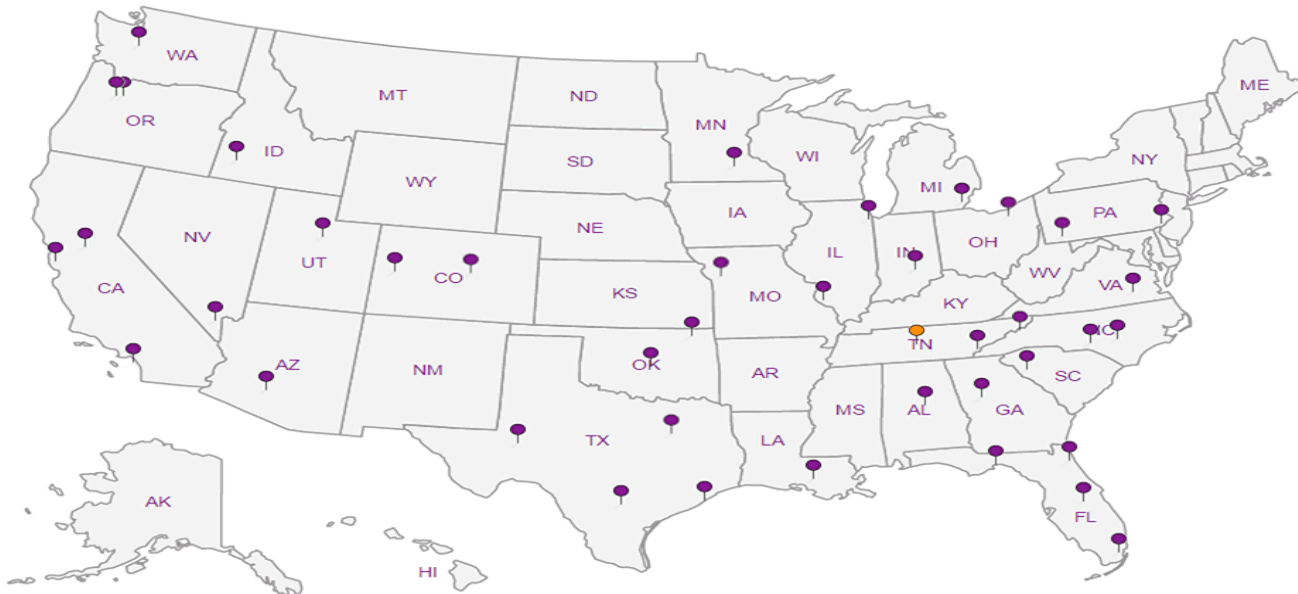
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater 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:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

Project Description: *American Lichen*

City/State Collected: *Seattle, WA*

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

Client Project #

Lab Project #
PESENVSWA-ALP

Collected by (print):
Jeff Dobbins

Site/Facility ID #

P.O. #

Collected by (signature):
[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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



LAB SCIENCES
a subsidiary of

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



L# *L989898*
D230

Acctnum: **PESENVSWA**

Template: **T134663**

Prelogin: **P647547**

TSR: **110 - Brian Ford**

PB: *4-1-18 CW*

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260C VOCs 40ml/NaHSO4/Syr/MeOH	dry wt, voc screen 2ozClr-NoPres	NO3, SO4, Cl, Alk 250ml HDPE NoPres	NUTPHGX 40ml Amb-HCl	PSK175LL (EEH) 40ml Amb-HCl	TOL 250ml Amb-HCl	Total Fe Mn 6020 250ml (HDPE) HNO3	V8260LLC VOCs 40ml Amb-HCl
MW-143-043018	Grab	SS	6W	4/30/18	0858	11			X	X	X	X	X	X
MW-158-043018		SS	6W	4/30/18	1114	11			X	X	X	X	X	X
MW-154-043018		SS	6W	4/30/18	1246	6			X	X	X	X	X	X
MW-146-043018	✓	SS	6W	4/30/18	1350	11			X	X	X	X	X	X
		SS												
		SS												
		SS												
		SS												
		SS												

Remarks	Sample # (lab only)
	01
	02
	03
	04

* 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: 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: <i>4/30/18</i>	Time: <i>1445</i>	Received by: (Signature)	Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> HCL/MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <i>3.7°C</i> Bottles Received: <i>39</i>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <i>5/1/18</i> Time: <i>9:00</i>

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

Katie Ingram

ESC Lab Sciences
Non-Conformance Form

Login #:L989898	Client:PESENVSWA	Date:05/01/18	Evaluated by: Myra "Katie" Ingram
-----------------	------------------	---------------	-----------------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	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.	X
Insufficient sample volume.	Received additional samples not listed on coc.	Improper handling by carrier (FedEx / UPS / Couri 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:
X 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:

One vial received broken for ID: MW-143-043018

Client informed by:	Call	Email	Voice Mail	Date:	Time:
TSR Initials:bif	Client Contact:				

Login Instructions:

Proceed with remaining sample containers.

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.



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	448000		2710	20000	1	05/07/2018 18:29	WG1107742

Sample Narrative:

L989898-01 WG1107742: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	66500		51.9	1000	1	05/02/2018 01:28	WG1105262
Nitrate	U		22.7	100	1	05/02/2018 01:28	WG1105262
Sulfate	4960 J J		77.4	5000	1	05/02/2018 01:28	WG1105262

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)	25500		2040	20000	20	05/02/2018 22:38	WG1106165

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2080		75.0	500	5	05/02/2018 23:16	WG1105579
Manganese	390		0.250	5.00	1	05/02/2018 21:23	WG1105579

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	154	B	31.6	100	1	05/01/2018 20:33	WG1105159
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/01/2018 20:33	WG1105159

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	6720		0.287	0.678	1	05/08/2018 10:20	WG1107967
Ethane	92.5		0.296	1.29	1	05/08/2018 10:20	WG1107967
Ethene	360		0.422	1.27	1	05/08/2018 10:20	WG1107967

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	6.00 J J		1.05	25.0	1	05/01/2018 19:49	WG1105522
Acrylonitrile	U		0.873	5.00	1	05/01/2018 19:49	WG1105522
Benzene	0.244 J J		0.0896	0.500	1	05/01/2018 19:49	WG1105522
Bromobenzene	U		0.133	0.500	1	05/01/2018 19:49	WG1105522
Bromodichloromethane	U		0.0800	0.500	1	05/01/2018 19:49	WG1105522
Bromochloromethane	U		0.145	0.500	1	05/01/2018 19:49	WG1105522
Bromoform	U		0.186	0.500	1	05/01/2018 19:49	WG1105522
Bromomethane	U		0.157	2.50	1	05/01/2018 19:49	WG1105522
n-Butylbenzene	U		0.143	0.500	1	05/01/2018 19:49	WG1105522
sec-Butylbenzene	U		0.134	0.500	1	05/01/2018 19:49	WG1105522
tert-Butylbenzene	U		0.183	0.500	1	05/01/2018 19:49	WG1105522
Carbon disulfide	1.45		0.101	0.500	1	05/01/2018 19:49	WG1105522
Carbon tetrachloride	U		0.159	0.500	1	05/01/2018 19:49	WG1105522

JC 6/11/18

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
Chlorobenzene	U		0.140	0.500	1	05/01/2018 19:49	WG105522
Chlorodibromomethane	U		0.128	0.500	1	05/01/2018 19:49	WG105522
Chloroethane	U		0.141	2.50	1	05/01/2018 19:49	WG105522
Chloroform	U		0.0860	0.500	1	05/01/2018 19:49	WG105522
Chloromethane	U		0.153	1.25	1	05/01/2018 19:49	WG105522
2-Chlorotoluene	U		0.111	0.500	1	05/01/2018 19:49	WG105522
4-Chlorotoluene	U		0.0972	0.500	1	05/01/2018 19:49	WG105522
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/01/2018 19:49	WG105522
1,2-Dibromoethane	U		0.193	0.500	1	05/01/2018 19:49	WG105522
Dibromomethane	U		0.117	0.500	1	05/01/2018 19:49	WG105522
1,2-Dichlorobenzene	U		0.101	0.500	1	05/01/2018 19:49	WG105522
1,3-Dichlorobenzene	U		0.130	0.500	1	05/01/2018 19:49	WG105522
1,4-Dichlorobenzene	U		0.121	0.500	1	05/01/2018 19:49	WG105522
Dichlorodifluoromethane	U		0.127	2.50	1	05/01/2018 19:49	WG105522
1,1-Dichloroethane	U		0.114	0.500	1	05/01/2018 19:49	WG105522
1,2-Dichloroethane	U		0.108	0.500	1	05/01/2018 19:49	WG105522
1,1-Dichloroethene	0.342	J U	0.188	0.500	1	05/01/2018 19:49	WG105522
cis-1,2-Dichloroethene	129		0.0933	0.500	1	05/01/2018 19:49	WG105522
trans-1,2-Dichloroethene	0.512		0.152	0.500	1	05/01/2018 19:49	WG105522
1,2-Dichloropropane	U		0.190	0.500	1	05/01/2018 19:49	WG105522
1,1-Dichloropropene	U		0.128	0.500	1	05/01/2018 19:49	WG105522
1,3-Dichloropropane	U		0.147	1.00	1	05/01/2018 19:49	WG105522
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/01/2018 19:49	WG105522
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/01/2018 19:49	WG105522
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/01/2018 19:49	WG105522
2,2-Dichloropropane	U		0.0929	0.500	1	05/01/2018 19:49	WG105522
Di-isopropyl ether	U		0.0924	0.500	1	05/01/2018 19:49	WG105522
Ethylbenzene	0.212	J U	0.158	0.500	1	05/01/2018 19:49	WG105522
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/01/2018 19:49	WG105522
2-Hexanone	U		0.757	5.00	1	05/01/2018 19:49	WG105522
n-Hexane	U		0.305	5.00	1	05/01/2018 19:49	WG105522
Iodomethane	U		0.377	10.0	1	05/01/2018 19:49	WG105522
Isopropylbenzene	U		0.126	0.500	1	05/01/2018 19:49	WG105522
p-Isopropyltoluene	U		0.138	0.500	1	05/01/2018 19:49	WG105522
2-Butanone (MEK)	1.81	J U	1.28	5.00	1	05/01/2018 19:49	WG105522
Methylene Chloride	U		1.07	2.50	1	05/01/2018 19:49	WG105522
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/01/2018 19:49	WG105522
Methyl tert-butyl ether	U		0.102	0.500	1	05/01/2018 19:49	WG105522
Naphthalene	U		0.174	2.50	1	05/01/2018 19:49	WG105522
n-Propylbenzene	U		0.162	0.500	1	05/01/2018 19:49	WG105522
Styrene	U		0.117	0.500	1	05/01/2018 19:49	WG105522
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/01/2018 19:49	WG105522
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/01/2018 19:49	WG105522
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/01/2018 19:49	WG105522
Tetrachloroethene	U		0.199	0.500	1	05/01/2018 19:49	WG105522
Toluene	0.797		0.412	0.500	1	05/01/2018 19:49	WG105522
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/01/2018 19:49	WG105522
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/01/2018 19:49	WG105522
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/01/2018 19:49	WG105522
1,1,2-Trichloroethane	U		0.186	0.500	1	05/01/2018 19:49	WG105522
Trichloroethene	U		0.153	0.500	1	05/01/2018 19:49	WG105522
Trichlorofluoromethane	U		0.130	2.50	1	05/01/2018 19:49	WG105522
1,2,3-Trichloropropane	U		0.247	2.50	1	05/01/2018 19:49	WG105522
1,2,4-Trimethylbenzene	0.482	J U	0.123	0.500	1	05/01/2018 19:49	WG105522
1,2,3-Trimethylbenzene	0.192	J U	0.0739	0.500	1	05/01/2018 19:49	WG105522
1,3,5-Trimethylbenzene	0.173	J U	0.124	0.500	1	05/01/2018 19:49	WG105522

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

JC 6/11/18



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	05/01/2018 19:49	WG1105522
Vinyl chloride	193		0.118	0.500	1	05/01/2018 19:49	WG1105522
Xylenes, Total	1.08	J	0.316	1.50	1	05/01/2018 19:49	WG1105522
(S) Toluene-d8	104			80.0-120		05/01/2018 19:49	WG1105522
(S) Dibromofluoromethane	99.7			76.0-123		05/01/2018 19:49	WG1105522
(S) 4-Bromofluorobenzene	94.7			80.0-120		05/01/2018 19:49	WG1105522

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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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	345000		2710	20000	1	05/07/2018 18:37	WG1107742

Sample Narrative:

L989898-02 WG1107742: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	113000		260	5000	5	05/02/2018 02:14	WG1105262
Nitrate	446		22.7	100	1	05/02/2018 01:59	WG1105262
Sulfate	278000		387	25000	5	05/02/2018 02:14	WG1105262

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)	54800		2040	20000	20	05/02/2018 22:49	WG1106165

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	55400		750	5000	50	05/02/2018 22:38	WG1105579
Manganese	1040		0.250	5.00	1	05/02/2018 21:28	WG1105579

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	101	<u>B</u>	31.6	100	1	05/01/2018 20:57	WG1105159
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/01/2018 20:57	WG1105159

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	352		0.287	0.678	1	05/08/2018 10:25	WG1107967
Ethane	15.7		0.296	1.29	1	05/08/2018 10:25	WG1107967
Ethene	11.0		0.422	1.27	1	05/08/2018 10:25	WG1107967

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>J</u> <u>J</u>	1.05	25.0	1	05/01/2018 20:08	WG1105522
Acrylonitrile	U		0.873	5.00	1	05/01/2018 20:08	WG1105522
Benzene	U		0.0896	0.500	1	05/01/2018 20:08	WG1105522
Bromobenzene	U		0.133	0.500	1	05/01/2018 20:08	WG1105522
Bromodichloromethane	U		0.0800	0.500	1	05/01/2018 20:08	WG1105522
Bromochloromethane	U		0.145	0.500	1	05/01/2018 20:08	WG1105522
Bromoform	U		0.186	0.500	1	05/01/2018 20:08	WG1105522
Bromomethane	U		0.157	2.50	1	05/01/2018 20:08	WG1105522
n-Butylbenzene	U		0.143	0.500	1	05/01/2018 20:08	WG1105522
sec-Butylbenzene	U		0.134	0.500	1	05/01/2018 20:08	WG1105522
tert-Butylbenzene	U		0.183	0.500	1	05/01/2018 20:08	WG1105522
Carbon disulfide	0.580		0.101	0.500	1	05/01/2018 20:08	WG1105522
Carbon tetrachloride	U		0.159	0.500	1	05/01/2018 20:08	WG1105522

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
Chlorobenzene	U		0.140	0.500	1	05/01/2018 20:08	WG105522
Chlorodibromomethane	U		0.128	0.500	1	05/01/2018 20:08	WG105522
Chloroethane	U		0.141	2.50	1	05/01/2018 20:08	WG105522
Chloroform	1.29		0.0860	0.500	1	05/01/2018 20:08	WG105522
Chloromethane	U		0.153	1.25	1	05/01/2018 20:08	WG105522
2-Chlorotoluene	U		0.111	0.500	1	05/01/2018 20:08	WG105522
4-Chlorotoluene	U		0.0972	0.500	1	05/01/2018 20:08	WG105522
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/01/2018 20:08	WG105522
1,2-Dibromoethane	U		0.193	0.500	1	05/01/2018 20:08	WG105522
Dibromomethane	U		0.117	0.500	1	05/01/2018 20:08	WG105522
1,2-Dichlorobenzene	U		0.101	0.500	1	05/01/2018 20:08	WG105522
1,3-Dichlorobenzene	U		0.130	0.500	1	05/01/2018 20:08	WG105522
1,4-Dichlorobenzene	U		0.121	0.500	1	05/01/2018 20:08	WG105522
Dichlorodifluoromethane	U		0.127	2.50	1	05/01/2018 20:08	WG105522
1,1-Dichloroethane	U		0.114	0.500	1	05/01/2018 20:08	WG105522
1,2-Dichloroethane	U		0.108	0.500	1	05/01/2018 20:08	WG105522
1,1-Dichloroethene	0.189	J U	0.188	0.500	1	05/01/2018 20:08	WG105522
cis-1,2-Dichloroethene	59.6		0.0933	0.500	1	05/01/2018 20:08	WG105522
trans-1,2-Dichloroethene	0.205	J U	0.152	0.500	1	05/01/2018 20:08	WG105522
1,2-Dichloropropane	U		0.190	0.500	1	05/01/2018 20:08	WG105522
1,1-Dichloropropene	U		0.128	0.500	1	05/01/2018 20:08	WG105522
1,3-Dichloropropane	U		0.147	1.00	1	05/01/2018 20:08	WG105522
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/01/2018 20:08	WG105522
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/01/2018 20:08	WG105522
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/01/2018 20:08	WG105522
2,2-Dichloropropane	U		0.0929	0.500	1	05/01/2018 20:08	WG105522
Di-isopropyl ether	U		0.0924	0.500	1	05/01/2018 20:08	WG105522
Ethylbenzene	U		0.158	0.500	1	05/01/2018 20:08	WG105522
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/01/2018 20:08	WG105522
2-Hexanone	U		0.757	5.00	1	05/01/2018 20:08	WG105522
n-Hexane	U		0.305	5.00	1	05/01/2018 20:08	WG105522
Iodomethane	U		0.377	10.0	1	05/01/2018 20:08	WG105522
Isopropylbenzene	U		0.126	0.500	1	05/01/2018 20:08	WG105522
p-Isopropyltoluene	U		0.138	0.500	1	05/01/2018 20:08	WG105522
2-Butanone (MEK)	U		1.28	5.00	1	05/01/2018 20:08	WG105522
Methylene Chloride	U		1.07	2.50	1	05/01/2018 20:08	WG105522
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/01/2018 20:08	WG105522
Methyl tert-butyl ether	U		0.102	0.500	1	05/01/2018 20:08	WG105522
Naphthalene	U		0.174	2.50	1	05/01/2018 20:08	WG105522
n-Propylbenzene	U		0.162	0.500	1	05/01/2018 20:08	WG105522
Styrene	U		0.117	0.500	1	05/01/2018 20:08	WG105522
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/01/2018 20:08	WG105522
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/01/2018 20:08	WG105522
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/01/2018 20:08	WG105522
Tetrachloroethene	17.7		0.199	0.500	1	05/01/2018 20:08	WG105522
Toluene	2.66		0.412	0.500	1	05/01/2018 20:08	WG105522
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/01/2018 20:08	WG105522
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/01/2018 20:08	WG105522
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/01/2018 20:08	WG105522
1,1,2-Trichloroethane	U		0.186	0.500	1	05/01/2018 20:08	WG105522
Trichloroethene	18.7		0.153	0.500	1	05/01/2018 20:08	WG105522
Trichlorofluoromethane	U		0.130	2.50	1	05/01/2018 20:08	WG105522
1,2,3-Trichloropropane	U		0.247	2.50	1	05/01/2018 20:08	WG105522
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/01/2018 20:08	WG105522
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/01/2018 20:08	WG105522
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/01/2018 20:08	WG105522

- 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 ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	05/01/2018 20:08	WG1105522
Vinyl chloride	8.91		0.118	0.500	1	05/01/2018 20:08	WG1105522
Xylenes, Total	U		0.316	1.50	1	05/01/2018 20:08	WG1105522
<i>(S) Toluene-d8</i>	107			80.0-120		05/01/2018 20:08	WG1105522
<i>(S) Dibromofluoromethane</i>	89.2			76.0-123		05/01/2018 20:08	WG1105522
<i>(S) 4-Bromofluorobenzene</i>	93.7			80.0-120		05/01/2018 20:08	WG1105522

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18



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	32.1	U B _J	31.6	100	1	05/02/2018 16:27	WG1105159
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-122		05/02/2018 16:27	WG1105159

- 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	12.9	J J	1.05	25.0	1	05/01/2018 20:27	WG1105522
Acrylonitrile	U		0.873	5.00	1	05/01/2018 20:27	WG1105522
Benzene	U		0.0896	0.500	1	05/01/2018 20:27	WG1105522
Bromobenzene	U		0.133	0.500	1	05/01/2018 20:27	WG1105522
Bromodichloromethane	U		0.0800	0.500	1	05/01/2018 20:27	WG1105522
Bromochloromethane	U		0.145	0.500	1	05/01/2018 20:27	WG1105522
Bromoform	U		0.186	0.500	1	05/01/2018 20:27	WG1105522
Bromomethane	U		0.157	2.50	1	05/01/2018 20:27	WG1105522
n-Butylbenzene	U		0.143	0.500	1	05/01/2018 20:27	WG1105522
sec-Butylbenzene	U		0.134	0.500	1	05/01/2018 20:27	WG1105522
tert-Butylbenzene	U		0.183	0.500	1	05/01/2018 20:27	WG1105522
Carbon disulfide	U		0.101	0.500	1	05/01/2018 20:27	WG1105522
Carbon tetrachloride	U		0.159	0.500	1	05/01/2018 20:27	WG1105522
Chlorobenzene	U		0.140	0.500	1	05/01/2018 20:27	WG1105522
Chlorodibromomethane	U		0.128	0.500	1	05/01/2018 20:27	WG1105522
Chloroethane	U		0.141	2.50	1	05/01/2018 20:27	WG1105522
Chloroform	U		0.0860	0.500	1	05/01/2018 20:27	WG1105522
Chloromethane	U		0.153	1.25	1	05/01/2018 20:27	WG1105522
2-Chlorotoluene	U		0.111	0.500	1	05/01/2018 20:27	WG1105522
4-Chlorotoluene	U		0.0972	0.500	1	05/01/2018 20:27	WG1105522
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/01/2018 20:27	WG1105522
1,2-Dibromoethane	U		0.193	0.500	1	05/01/2018 20:27	WG1105522
Dibromomethane	U		0.117	0.500	1	05/01/2018 20:27	WG1105522
1,2-Dichlorobenzene	U		0.101	0.500	1	05/01/2018 20:27	WG1105522
1,3-Dichlorobenzene	U		0.130	0.500	1	05/01/2018 20:27	WG1105522
1,4-Dichlorobenzene	U		0.121	0.500	1	05/01/2018 20:27	WG1105522
Dichlorodifluoromethane	U		0.127	2.50	1	05/01/2018 20:27	WG1105522
1,1-Dichloroethane	U		0.114	0.500	1	05/01/2018 20:27	WG1105522
1,2-Dichloroethane	U		0.108	0.500	1	05/01/2018 20:27	WG1105522
1,1-Dichloroethene	U		0.188	0.500	1	05/01/2018 20:27	WG1105522
cis-1,2-Dichloroethene	1.77		0.0933	0.500	1	05/01/2018 20:27	WG1105522
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/01/2018 20:27	WG1105522
1,2-Dichloropropane	U		0.190	0.500	1	05/01/2018 20:27	WG1105522
1,1-Dichloropropene	U		0.128	0.500	1	05/01/2018 20:27	WG1105522
1,3-Dichloropropane	U		0.147	1.00	1	05/01/2018 20:27	WG1105522
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/01/2018 20:27	WG1105522
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/01/2018 20:27	WG1105522
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/01/2018 20:27	WG1105522
2,2-Dichloropropane	U		0.0929	0.500	1	05/01/2018 20:27	WG1105522
Di-isopropyl ether	U		0.0924	0.500	1	05/01/2018 20:27	WG1105522
Ethylbenzene	U		0.158	0.500	1	05/01/2018 20:27	WG1105522
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/01/2018 20:27	WG1105522
2-Hexanone	U		0.757	5.00	1	05/01/2018 20:27	WG1105522
n-Hexane	U		0.305	5.00	1	05/01/2018 20:27	WG1105522
Iodomethane	U		0.377	10.0	1	05/01/2018 20:27	WG1105522
Isopropylbenzene	U		0.126	0.500	1	05/01/2018 20:27	WG1105522
p-Isopropyltoluene	U		0.138	0.500	1	05/01/2018 20:27	WG1105522
2-Butanone (MEK)	U		1.28	5.00	1	05/01/2018 20:27	WG1105522

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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	05/01/2018 20:27	WG1105522
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/01/2018 20:27	WG1105522
Methyl tert-butyl ether	U		0.102	0.500	1	05/01/2018 20:27	WG1105522
Naphthalene	U		0.174	2.50	1	05/01/2018 20:27	WG1105522
n-Propylbenzene	U		0.162	0.500	1	05/01/2018 20:27	WG1105522
Styrene	U		0.117	0.500	1	05/01/2018 20:27	WG1105522
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/01/2018 20:27	WG1105522
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/01/2018 20:27	WG1105522
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/01/2018 20:27	WG1105522
Tetrachloroethene	4.46		0.199	0.500	1	05/01/2018 20:27	WG1105522
Toluene	U		0.412	0.500	1	05/01/2018 20:27	WG1105522
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/01/2018 20:27	WG1105522
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/01/2018 20:27	WG1105522
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/01/2018 20:27	WG1105522
1,1,2-Trichloroethane	U		0.186	0.500	1	05/01/2018 20:27	WG1105522
Trichloroethene	0.230	J	0.153	0.500	1	05/01/2018 20:27	WG1105522
Trichlorofluoromethane	U		0.130	2.50	1	05/01/2018 20:27	WG1105522
1,2,3-Trichloropropane	U		0.247	2.50	1	05/01/2018 20:27	WG1105522
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/01/2018 20:27	WG1105522
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/01/2018 20:27	WG1105522
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/01/2018 20:27	WG1105522
Vinyl acetate	U		0.645	5.00	1	05/01/2018 20:27	WG1105522
Vinyl chloride	7.48		0.118	0.500	1	05/01/2018 20:27	WG1105522
Xylenes, Total	U		0.316	1.50	1	05/01/2018 20:27	WG1105522
(S) Toluene-d8	107			80.0-120		05/01/2018 20:27	WG1105522
(S) Dibromofluoromethane	92.4			76.0-123		05/01/2018 20:27	WG1105522
(S) 4-Bromofluorobenzene	94.0			80.0-120		05/01/2018 20:27	WG1105522

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

JC 6/11/18



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	363000		2710	20000	1	05/07/2018 18:44	WG1107742

Sample Narrative:

L989898-04 WG1107742: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	30400		51.9	1000	1	05/02/2018 02:30	WG1105262
Nitrate	U		22.7	100	1	05/02/2018 02:30	WG1105262
Sulfate	22300		77.4	5000	1	05/02/2018 02:30	WG1105262

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)	4470		102	1000	1	05/02/2018 23:01	WG1106165

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	26500		300	2000	20	05/02/2018 22:43	WG1105579
Manganese	1260		0.250	5.00	1	05/02/2018 21:32	WG1105579

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	597		31.6	100	1	05/02/2018 17:05	WG1105159
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 17:05	WG1105159

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	9240		2.87	6.78	10	05/08/2018 13:22	WG1107969
Ethane	11.9		0.296	1.29	1	05/08/2018 10:27	WG1107967
Ethene	489		0.422	1.27	1	05/08/2018 10:27	WG1107967

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	4.54	J	1.05	25.0	1	05/01/2018 20:45	WG1105522
Acrylonitrile	U		0.873	5.00	1	05/01/2018 20:45	WG1105522
Benzene	U		0.0896	0.500	1	05/01/2018 20:45	WG1105522
Bromobenzene	U		0.133	0.500	1	05/01/2018 20:45	WG1105522
Bromodichloromethane	U		0.0800	0.500	1	05/01/2018 20:45	WG1105522
Bromochloromethane	U		0.145	0.500	1	05/01/2018 20:45	WG1105522
Bromoform	U		0.186	0.500	1	05/01/2018 20:45	WG1105522
Bromomethane	U		0.157	2.50	1	05/01/2018 20:45	WG1105522
n-Butylbenzene	U		0.143	0.500	1	05/01/2018 20:45	WG1105522
sec-Butylbenzene	U		0.134	0.500	1	05/01/2018 20:45	WG1105522
tert-Butylbenzene	U		0.183	0.500	1	05/01/2018 20:45	WG1105522
Carbon disulfide	U		0.101	0.500	1	05/01/2018 20:45	WG1105522
Carbon tetrachloride	U		0.159	0.500	1	05/01/2018 20:45	WG1105522

JC 6/11/18

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
Chlorobenzene	U		0.140	0.500	1	05/01/2018 20:45	WG105522
Chlorodibromomethane	U		0.128	0.500	1	05/01/2018 20:45	WG105522
Chloroethane	1.05	J	0.141	2.50	1	05/01/2018 20:45	WG105522
Chloroform	U		0.0860	0.500	1	05/01/2018 20:45	WG105522
Chloromethane	U		0.153	1.25	1	05/01/2018 20:45	WG105522
2-Chlorotoluene	U		0.111	0.500	1	05/01/2018 20:45	WG105522
4-Chlorotoluene	U		0.0972	0.500	1	05/01/2018 20:45	WG105522
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/01/2018 20:45	WG105522
1,2-Dibromoethane	U		0.193	0.500	1	05/01/2018 20:45	WG105522
Dibromomethane	U		0.117	0.500	1	05/01/2018 20:45	WG105522
1,2-Dichlorobenzene	U		0.101	0.500	1	05/01/2018 20:45	WG105522
1,3-Dichlorobenzene	U		0.130	0.500	1	05/01/2018 20:45	WG105522
1,4-Dichlorobenzene	U		0.121	0.500	1	05/01/2018 20:45	WG105522
Dichlorodifluoromethane	U		0.127	2.50	1	05/01/2018 20:45	WG105522
1,1-Dichloroethane	U		0.114	0.500	1	05/01/2018 20:45	WG105522
1,2-Dichloroethane	U		0.108	0.500	1	05/01/2018 20:45	WG105522
1,1-Dichloroethene	4.02		0.188	0.500	1	05/01/2018 20:45	WG105522
cis-1,2-Dichloroethene	900		9.33	50.0	100	05/07/2018 21:47	WG105522
trans-1,2-Dichloroethene	6.12		0.152	0.500	1	05/01/2018 20:45	WG105522
1,2-Dichloropropane	U		0.190	0.500	1	05/01/2018 20:45	WG105522
1,1-Dichloropropene	U		0.128	0.500	1	05/01/2018 20:45	WG105522
1,3-Dichloropropane	U		0.147	1.00	1	05/01/2018 20:45	WG105522
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/01/2018 20:45	WG105522
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/01/2018 20:45	WG105522
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/01/2018 20:45	WG105522
2,2-Dichloropropane	U		0.0929	0.500	1	05/01/2018 20:45	WG105522
Di-isopropyl ether	U		0.0924	0.500	1	05/01/2018 20:45	WG105522
Ethylbenzene	U		0.158	0.500	1	05/01/2018 20:45	WG105522
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/01/2018 20:45	WG105522
2-Hexanone	U		0.757	5.00	1	05/01/2018 20:45	WG105522
n-Hexane	U		0.305	5.00	1	05/01/2018 20:45	WG105522
Iodomethane	U		0.377	10.0	1	05/01/2018 20:45	WG105522
Isopropylbenzene	U		0.126	0.500	1	05/01/2018 20:45	WG105522
p-Isopropyltoluene	U		0.138	0.500	1	05/01/2018 20:45	WG105522
2-Butanone (MEK)	U		1.28	5.00	1	05/01/2018 20:45	WG105522
Methylene Chloride	U		1.07	2.50	1	05/01/2018 20:45	WG105522
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/01/2018 20:45	WG105522
Methyl tert-butyl ether	U		0.102	0.500	1	05/01/2018 20:45	WG105522
Naphthalene	U		0.174	2.50	1	05/01/2018 20:45	WG105522
n-Propylbenzene	U		0.162	0.500	1	05/01/2018 20:45	WG105522
Styrene	U		0.117	0.500	1	05/01/2018 20:45	WG105522
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/01/2018 20:45	WG105522
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/01/2018 20:45	WG105522
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/01/2018 20:45	WG105522
Tetrachloroethene	3.56		0.199	0.500	1	05/01/2018 20:45	WG105522
Toluene	U		0.412	0.500	1	05/01/2018 20:45	WG105522
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/01/2018 20:45	WG105522
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/01/2018 20:45	WG105522
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/01/2018 20:45	WG105522
1,1,2-Trichloroethane	U		0.186	0.500	1	05/01/2018 20:45	WG105522
Trichloroethene	48.4		0.153	0.500	1	05/01/2018 20:45	WG105522
Trichlorofluoromethane	U		0.130	2.50	1	05/01/2018 20:45	WG105522
1,2,3-Trichloropropane	U		0.247	2.50	1	05/01/2018 20:45	WG105522
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/01/2018 20:45	WG105522
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/01/2018 20:45	WG105522
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/01/2018 20:45	WG105522

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

JC 6/11/18



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	05/01/2018 20:45	WG1105522
Vinyl chloride	2100		11.8	50.0	100	05/07/2018 21:47	WG1105522
Xylenes, Total	U		0.316	1.50	1	05/01/2018 20:45	WG1105522
(S) Toluene-d8	104			80.0-120		05/07/2018 21:47	WG1105522
(S) Toluene-d8	103			80.0-120		05/01/2018 20:45	WG1105522
(S) Dibromofluoromethane	98.7			76.0-123		05/07/2018 21:47	WG1105522
(S) Dibromofluoromethane	96.4			76.0-123		05/01/2018 20:45	WG1105522
(S) 4-Bromofluorobenzene	95.0			80.0-120		05/01/2018 20:45	WG1105522
(S) 4-Bromofluorobenzene	96.7			80.0-120		05/07/2018 21:47	WG1105522

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18

May 09, 2018

PES Environmental, Inc.- WA

Sample Delivery Group: L990247
Samples Received: 05/02/2018
Project Number:
Description: American Linen

Report To: Brian O'Neal/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-148-050118 L990247-01 GW

Collected by
Jeff Dobbins Collected date/time
05/01/18 08:55 Received date/time
05/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1107743	1	05/07/18 23:35	05/07/18 23:35	MCG
Wet Chemistry by Method 9056A	WG1105796	1	05/02/18 23:14	05/02/18 23:14	MAJ
Wet Chemistry by Method 9060A	WG1106959	1	05/04/18 20:23	05/04/18 20:23	EG
Metals (ICPMS) by Method 6020A	WG1106119	1	05/04/18 12:35	05/04/18 15:32	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1106035	1	05/02/18 18:17	05/02/18 18:17	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1107967	1	05/08/18 11:21	05/08/18 11:21	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/02/18 15:22	05/02/18 15:22	BMB

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW-153-050118 L990247-02 GW

Collected by
Jeff Dobbins Collected date/time
05/01/18 11:02 Received date/time
05/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1107743	1	05/07/18 23:43	05/07/18 23:43	MCG
Wet Chemistry by Method 9056A	WG1105796	1	05/02/18 23:29	05/02/18 23:29	MAJ
Wet Chemistry by Method 9060A	WG1106959	1	05/04/18 20:40	05/04/18 20:40	EG
Metals (ICPMS) by Method 6020A	WG1106119	1	05/04/18 12:35	05/04/18 15:36	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1106035	1	05/02/18 18:41	05/02/18 18:41	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1107967	1	05/08/18 11:28	05/08/18 11:28	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/02/18 15:42	05/02/18 15:42	BMB

IW-11D-050118 L990247-03 GW

Collected by
Jeff Dobbins Collected date/time
05/01/18 12:43 Received date/time
05/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/02/18 16:01	05/02/18 16:01	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	50	05/07/18 19:46	05/07/18 19:46	DWR

MW-905-050118 L990247-04 GW

Collected by
Jeff Dobbins Collected date/time
05/01/18 11:08 Received date/time
05/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1107743	1	05/07/18 23:51	05/07/18 23:51	MCG
Wet Chemistry by Method 9056A	WG1105796	1	05/02/18 23:45	05/02/18 23:45	MAJ
Wet Chemistry by Method 9060A	WG1106959	1	05/04/18 20:54	05/04/18 20:54	EG
Metals (ICPMS) by Method 6020A	WG1106119	1	05/04/18 12:35	05/04/18 15:55	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1106035	1	05/02/18 19:05	05/02/18 19:05	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1107969	1	05/08/18 13:26	05/08/18 13:26	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/02/18 16:21	05/02/18 16:21	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/07/18 20:05	05/07/18 20:05	DWR

MW-147-050118 L990247-05 GW

Collected by
Jeff Dobbins Collected date/time
05/01/18 13:53 Received date/time
05/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1107743	1	05/07/18 23:58	05/07/18 23:58	MCG
Wet Chemistry by Method 9056A	WG1105796	1	05/03/18 00:00	05/03/18 00:00	MAJ
Wet Chemistry by Method 9056A	WG1105796	5	05/03/18 12:23	05/03/18 12:23	MAJ
Wet Chemistry by Method 9060A	WG1106959	1	05/04/18 21:13	05/04/18 21:13	EG
Metals (ICPMS) by Method 6020A	WG1106119	1	05/04/18 12:35	05/04/18 16:00	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1106035	1	05/02/18 19:28	05/02/18 19:28	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1107969	1	05/08/18 13:28	05/08/18 13:28	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/02/18 16:41	05/02/18 16:41	BMB

SAMPLE SUMMARY



MW-147-050118 L990247-05 GW

Collected by
Jeff Dobbins

Collected date/time
05/01/18 13:53

Received date/time
05/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	25	05/07/18 20:25	05/07/18 20:25	DWR

1
Cp

2
Tc

3
Ss

EQ-050118 L990247-06 GW

Collected by
Jeff Dobbins

Collected date/time
05/01/18 14:42

Received date/time
05/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1107743	1	05/08/18 08:40	05/08/18 08:40	MCG
Wet Chemistry by Method 9056A	WG1105796	1	05/03/18 00:15	05/03/18 00:15	MAJ
Wet Chemistry by Method 9060A	WG1106959	1	05/04/18 21:25	05/04/18 21:25	EG
Metals (ICPMS) by Method 6020A	WG1106119	1	05/04/18 12:35	05/04/18 16:04	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1106035	1	05/02/18 19:52	05/02/18 19:52	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1107969	1	05/08/18 13:33	05/08/18 13:33	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/02/18 17:01	05/02/18 17:01	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/07/18 20:45	05/07/18 20:45	DWR

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

TRIPBLANK-050118 L990247-07 GW

Collected by
Jeff Dobbins

Collected date/time
05/01/18 00:00

Received date/time
05/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1106035	1	05/02/18 17:53	05/02/18 17:53	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1105852	1	05/02/18 13:44	05/02/18 13:44	BMB

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, unless qualified or notated within the report. Where applicable, 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.

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	170000		2710	20000	1	05/07/2018 23:35	WG1107743

Sample Narrative:

L990247-01 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22200		51.9	1000	1	05/02/2018 23:14	WG1105796
Nitrate	U		22.7	100	1	05/02/2018 23:14	WG1105796
Sulfate	95500		77.4	5000	1	05/02/2018 23:14	WG1105796

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)	2460		102	1000	1	05/04/2018 20:23	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	12000		15.0	100	1	05/04/2018 15:32	WG1106119
Manganese	439		0.250	5.00	1	05/04/2018 15:32	WG1106119

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	05/02/2018 18:17	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 18:17	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1210		0.287	0.678	1	05/08/2018 11:21	WG1107967
Ethane	U		0.296	1.29	1	05/08/2018 11:21	WG1107967
Ethene	U		0.422	1.27	1	05/08/2018 11:21	WG1107967

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	6.56	J	1.05	25.0	1	05/02/2018 15:22	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 15:22	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 15:22	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 15:22	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 15:22	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 15:22	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 15:22	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 15:22	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 15:22	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 15:22	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 15:22	WG1105852
Carbon disulfide	1.01		0.101	0.500	1	05/02/2018 15:22	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 15:22	WG1105852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/01/18 08:55

L990247

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/02/2018 15:22	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 15:22	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 15:22	WG105852
Chloroform	U		0.0860	0.500	1	05/02/2018 15:22	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 15:22	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 15:22	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 15:22	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 15:22	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 15:22	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 15:22	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 15:22	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 15:22	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 15:22	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 15:22	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 15:22	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 15:22	WG105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 15:22	WG105852
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/02/2018 15:22	WG105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 15:22	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 15:22	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 15:22	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 15:22	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 15:22	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 15:22	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 15:22	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 15:22	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 15:22	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 15:22	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 15:22	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 15:22	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 15:22	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 15:22	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 15:22	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 15:22	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 15:22	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 15:22	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 15:22	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 15:22	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 15:22	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 15:22	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 15:22	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 15:22	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 15:22	WG105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 15:22	WG105852
Tetrachloroethene	U		0.199	0.500	1	05/02/2018 15:22	WG105852
Toluene	U		0.412	0.500	1	05/02/2018 15:22	WG105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 15:22	WG105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 15:22	WG105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 15:22	WG105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 15:22	WG105852
Trichloroethene	U		0.153	0.500	1	05/02/2018 15:22	WG105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 15:22	WG105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 15:22	WG105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 15:22	WG105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 15:22	WG105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 15:22	WG105852

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
Vinyl acetate	U		0.645	5.00	1	05/02/2018 15:22	WG1105852
Vinyl chloride	U		0.118	0.500	1	05/02/2018 15:22	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 15:22	WG1105852
<i>(S) Toluene-d8</i>	106			80.0-120		05/02/2018 15:22	WG1105852
<i>(S) Dibromofluoromethane</i>	96.2			76.0-123		05/02/2018 15:22	WG1105852
<i>(S) 4-Bromofluorobenzene</i>	80.9			80.0-120		05/02/2018 15:22	WG1105852

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	148000		2710	20000	1	05/07/2018 23:43	WG1107743

Sample Narrative:

L990247-02 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	23800		51.9	1000	1	05/02/2018 23:29	WG1105796
Nitrate	U		22.7	100	1	05/02/2018 23:29	WG1105796
Sulfate	23700		77.4	5000	1	05/02/2018 23:29	WG1105796

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)	1260		102	1000	1	05/04/2018 20:40	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	1010		15.0	100	1	05/04/2018 15:36	WG1106119
Manganese	187		0.250	5.00	1	05/04/2018 15:36	WG1106119

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	05/02/2018 18:41	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 18:41	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	74.3		0.287	0.678	1	05/08/2018 11:28	WG1107967
Ethane	U		0.296	1.29	1	05/08/2018 11:28	WG1107967
Ethene	U		0.422	1.27	1	05/08/2018 11:28	WG1107967

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	2.65	J	1.05	25.0	1	05/02/2018 15:42	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 15:42	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 15:42	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 15:42	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 15:42	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 15:42	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 15:42	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 15:42	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 15:42	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 15:42	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 15:42	WG1105852
Carbon disulfide	4.54		0.101	0.500	1	05/02/2018 15:42	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 15:42	WG1105852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/01/18 11:02

L990247

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/02/2018 15:42	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 15:42	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 15:42	WG105852
Chloroform	0.870		0.0860	0.500	1	05/02/2018 15:42	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 15:42	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 15:42	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 15:42	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 15:42	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 15:42	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 15:42	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 15:42	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 15:42	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 15:42	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 15:42	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 15:42	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 15:42	WG105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 15:42	WG105852
cis-1,2-Dichloroethene	0.612		0.0933	0.500	1	05/02/2018 15:42	WG105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 15:42	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 15:42	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 15:42	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 15:42	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 15:42	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 15:42	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 15:42	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 15:42	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 15:42	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 15:42	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 15:42	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 15:42	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 15:42	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 15:42	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 15:42	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 15:42	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 15:42	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 15:42	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 15:42	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 15:42	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 15:42	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 15:42	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 15:42	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 15:42	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 15:42	WG105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 15:42	WG105852
Tetrachloroethene	0.756		0.199	0.500	1	05/02/2018 15:42	WG105852
Toluene	U		0.412	0.500	1	05/02/2018 15:42	WG105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 15:42	WG105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 15:42	WG105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 15:42	WG105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 15:42	WG105852
Trichloroethene	U		0.153	0.500	1	05/02/2018 15:42	WG105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 15:42	WG105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 15:42	WG105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 15:42	WG105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 15:42	WG105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 15:42	WG105852

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
Vinyl acetate	U		0.645	5.00	1	05/02/2018 15:42	WG1105852
Vinyl chloride	9.56		0.118	0.500	1	05/02/2018 15:42	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 15:42	WG1105852
<i>(S) Toluene-d8</i>	104			80.0-120		05/02/2018 15:42	WG1105852
<i>(S) Dibromofluoromethane</i>	95.3			76.0-123		05/02/2018 15:42	WG1105852
<i>(S) 4-Bromofluorobenzene</i>	82.2			80.0-120		05/02/2018 15:42	WG1105852

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	3.92	J	1.05	25.0	1	05/02/2018 16:01	WG105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 16:01	WG105852
Benzene	U		0.0896	0.500	1	05/02/2018 16:01	WG105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 16:01	WG105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 16:01	WG105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 16:01	WG105852
Bromoform	U		0.186	0.500	1	05/02/2018 16:01	WG105852
Bromomethane	U		0.157	2.50	1	05/02/2018 16:01	WG105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 16:01	WG105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 16:01	WG105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 16:01	WG105852
Carbon disulfide	0.792		0.101	0.500	1	05/02/2018 16:01	WG105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 16:01	WG105852
Chlorobenzene	U		0.140	0.500	1	05/02/2018 16:01	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 16:01	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 16:01	WG105852
Chloroform	U		0.0860	0.500	1	05/02/2018 16:01	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 16:01	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 16:01	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 16:01	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 16:01	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 16:01	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 16:01	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 16:01	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 16:01	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 16:01	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 16:01	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 16:01	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 16:01	WG105852
1,1-Dichloroethene	18.0		0.188	0.500	1	05/02/2018 16:01	WG105852
cis-1,2-Dichloroethene	1640		4.66	25.0	50	05/07/2018 19:46	WG105852
trans-1,2-Dichloroethene	2.27		0.152	0.500	1	05/02/2018 16:01	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 16:01	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 16:01	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 16:01	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 16:01	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 16:01	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 16:01	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 16:01	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 16:01	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 16:01	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 16:01	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 16:01	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 16:01	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 16:01	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 16:01	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 16:01	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 16:01	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 16:01	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 16:01	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 16:01	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 16:01	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 16:01	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 16:01	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 16:01	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 16:01	WG105852

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	05/02/2018 16:01	WG1105852
Tetrachloroethene	18.9		0.199	0.500	1	05/02/2018 16:01	WG1105852
Toluene	0.643		0.412	0.500	1	05/02/2018 16:01	WG1105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 16:01	WG1105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 16:01	WG1105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 16:01	WG1105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 16:01	WG1105852
Trichloroethene	282		7.65	25.0	50	05/07/2018 19:46	WG1105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 16:01	WG1105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 16:01	WG1105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 16:01	WG1105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 16:01	WG1105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 16:01	WG1105852
Vinyl acetate	U		0.645	5.00	1	05/02/2018 16:01	WG1105852
Vinyl chloride	34.1		0.118	0.500	1	05/02/2018 16:01	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 16:01	WG1105852
(S) Toluene-d8	105			80.0-120		05/02/2018 16:01	WG1105852
(S) Toluene-d8	102			80.0-120		05/07/2018 19:46	WG1105852
(S) Dibromofluoromethane	89.5			76.0-123		05/07/2018 19:46	WG1105852
(S) Dibromofluoromethane	96.2			76.0-123		05/02/2018 16:01	WG1105852
(S) 4-Bromofluorobenzene	82.4			80.0-120		05/02/2018 16:01	WG1105852
(S) 4-Bromofluorobenzene	96.4			80.0-120		05/07/2018 19:46	WG1105852

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	162000		2710	20000	1	05/07/2018 23:51	WG1107743

Sample Narrative:

L990247-04 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22500		51.9	1000	1	05/02/2018 23:45	WG1105796
Nitrate	U		22.7	100	1	05/02/2018 23:45	WG1105796
Sulfate	96100		77.4	5000	1	05/02/2018 23:45	WG1105796

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)	2530		102	1000	1	05/04/2018 20:54	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	11200		15.0	100	1	05/04/2018 15:55	WG1106119
Manganese	379		0.250	5.00	1	05/04/2018 15:55	WG1106119

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	05/02/2018 19:05	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 19:05	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1140		0.287	0.678	1	05/08/2018 13:26	WG1107969
Ethane	U		0.296	1.29	1	05/08/2018 13:26	WG1107969
Ethene	U		0.422	1.27	1	05/08/2018 13:26	WG1107969

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	5.73	J	1.05	25.0	1	05/02/2018 16:21	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 16:21	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 16:21	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 16:21	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 16:21	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 16:21	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 16:21	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 16:21	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 16:21	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 16:21	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 16:21	WG1105852
Carbon disulfide	1.14		0.101	0.500	1	05/02/2018 16:21	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 16:21	WG1105852

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
Chlorobenzene	U		0.140	0.500	1	05/02/2018 16:21	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 16:21	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 16:21	WG105852
Chloroform	U		0.0860	0.500	1	05/02/2018 16:21	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 16:21	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 16:21	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 16:21	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 16:21	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 16:21	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 16:21	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 16:21	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 16:21	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 16:21	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 16:21	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 16:21	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 16:21	WG105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 16:21	WG105852
cis-1,2-Dichloroethene	0.216	U	0.0933	0.500	1	05/07/2018 20:05	WG105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 16:21	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 16:21	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 16:21	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 16:21	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 16:21	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 16:21	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 16:21	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 16:21	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 16:21	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 16:21	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 16:21	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 16:21	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 16:21	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 16:21	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 16:21	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 16:21	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 16:21	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 16:21	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 16:21	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 16:21	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 16:21	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 16:21	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 16:21	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 16:21	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 16:21	WG105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 16:21	WG105852
Tetrachloroethene	U		0.199	0.500	1	05/02/2018 16:21	WG105852
Toluene	U		0.412	0.500	1	05/02/2018 16:21	WG105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 16:21	WG105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 16:21	WG105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 16:21	WG105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 16:21	WG105852
Trichloroethene	U		0.153	0.500	1	05/07/2018 20:05	WG105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 16:21	WG105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 16:21	WG105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 16:21	WG105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 16:21	WG105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 16:21	WG105852

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
Vinyl acetate	U		0.645	5.00	1	05/02/2018 16:21	WG1105852
Vinyl chloride	U		0.118	0.500	1	05/02/2018 16:21	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 16:21	WG1105852
(S) Toluene-d8	106			80.0-120		05/02/2018 16:21	WG1105852
(S) Toluene-d8	98.5			80.0-120		05/07/2018 20:05	WG1105852
(S) Dibromofluoromethane	92.3			76.0-123		05/07/2018 20:05	WG1105852
(S) Dibromofluoromethane	96.5			76.0-123		05/02/2018 16:21	WG1105852
(S) 4-Bromofluorobenzene	96.3			80.0-120		05/07/2018 20:05	WG1105852
(S) 4-Bromofluorobenzene	80.5			80.0-120		05/02/2018 16:21	WG1105852

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	302000		2710	20000	1	05/07/2018 23:58	WG1107743

Sample Narrative:

L990247-05 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	40800		51.9	1000	1	05/03/2018 00:00	WG1105796
Nitrate	U		22.7	100	1	05/03/2018 00:00	WG1105796
Sulfate	183000		387	25000	5	05/03/2018 12:23	WG1105796

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)	21300		102	1000	1	05/04/2018 21:13	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	17100		15.0	100	1	05/04/2018 16:00	WG1106119
Manganese	564		0.250	5.00	1	05/04/2018 16:00	WG1106119

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	484		31.6	100	1	05/02/2018 19:28	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-122		05/02/2018 19:28	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	5060		0.287	0.678	1	05/08/2018 13:28	WG1107969
Ethane	10.7		0.296	1.29	1	05/08/2018 13:28	WG1107969
Ethene	144		0.422	1.27	1	05/08/2018 13:28	WG1107969

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	3.16	J	1.05	25.0	1	05/02/2018 16:41	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 16:41	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 16:41	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 16:41	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 16:41	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 16:41	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 16:41	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 16:41	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 16:41	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 16:41	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 16:41	WG1105852
Carbon disulfide	6.02		0.101	0.500	1	05/02/2018 16:41	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 16:41	WG1105852

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
Chlorobenzene	U		0.140	0.500	1	05/02/2018 16:41	WG1105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 16:41	WG1105852
Chloroethane	2.01	J	0.141	2.50	1	05/02/2018 16:41	WG1105852
Chloroform	U		0.0860	0.500	1	05/02/2018 16:41	WG1105852
Chloromethane	U		0.153	1.25	1	05/02/2018 16:41	WG1105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 16:41	WG1105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 16:41	WG1105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 16:41	WG1105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 16:41	WG1105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 16:41	WG1105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 16:41	WG1105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 16:41	WG1105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 16:41	WG1105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 16:41	WG1105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 16:41	WG1105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 16:41	WG1105852
1,1-Dichloroethene	4.59		0.188	0.500	1	05/02/2018 16:41	WG1105852
cis-1,2-Dichloroethene	399		2.33	12.5	25	05/07/2018 20:25	WG1105852
trans-1,2-Dichloroethene	2.09		0.152	0.500	1	05/02/2018 16:41	WG1105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 16:41	WG1105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 16:41	WG1105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 16:41	WG1105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 16:41	WG1105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 16:41	WG1105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 16:41	WG1105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 16:41	WG1105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 16:41	WG1105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 16:41	WG1105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 16:41	WG1105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 16:41	WG1105852
n-Hexane	U		0.305	5.00	1	05/02/2018 16:41	WG1105852
Iodomethane	U		0.377	10.0	1	05/02/2018 16:41	WG1105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 16:41	WG1105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 16:41	WG1105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 16:41	WG1105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 16:41	WG1105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 16:41	WG1105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 16:41	WG1105852
Naphthalene	U		0.174	2.50	1	05/02/2018 16:41	WG1105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 16:41	WG1105852
Styrene	U		0.117	0.500	1	05/02/2018 16:41	WG1105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 16:41	WG1105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 16:41	WG1105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 16:41	WG1105852
Tetrachloroethene	19.8		0.199	0.500	1	05/02/2018 16:41	WG1105852
Toluene	U		0.412	0.500	1	05/02/2018 16:41	WG1105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 16:41	WG1105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 16:41	WG1105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 16:41	WG1105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 16:41	WG1105852
Trichloroethene	83.4		0.153	0.500	1	05/02/2018 16:41	WG1105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 16:41	WG1105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 16:41	WG1105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 16:41	WG1105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 16:41	WG1105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 16:41	WG1105852

- 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
Vinyl acetate	U		0.645	5.00	1	05/02/2018 16:41	WG1105852
Vinyl chloride	1150		2.95	12.5	25	05/07/2018 20:25	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 16:41	WG1105852
<i>(S) Toluene-d8</i>	106			80.0-120		05/02/2018 16:41	WG1105852
<i>(S) Toluene-d8</i>	99.7			80.0-120		05/07/2018 20:25	WG1105852
<i>(S) Dibromofluoromethane</i>	97.1			76.0-123		05/02/2018 16:41	WG1105852
<i>(S) Dibromofluoromethane</i>	95.1			76.0-123		05/07/2018 20:25	WG1105852
<i>(S) 4-Bromofluorobenzene</i>	81.1			80.0-120		05/02/2018 16:41	WG1105852
<i>(S) 4-Bromofluorobenzene</i>	94.1			80.0-120		05/07/2018 20:25	WG1105852

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 date / time	Batch
Alkalinity	6640	J	2710	20000	1	05/08/2018 08:40	WG1107743

Sample Narrative:

L990247-06 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	864	J P1	51.9	1000	1	05/03/2018 00:15	WG1105796
Nitrate	U		22.7	100	1	05/03/2018 00:15	WG1105796
Sulfate	U		77.4	5000	1	05/03/2018 00:15	WG1105796

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	104	J	102	1000	1	05/04/2018 21:25	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	U		15.0	100	1	05/04/2018 16:04	WG1106119
Manganese	1.05	J	0.250	5.00	1	05/04/2018 16:04	WG1106119

Volatile Organic Compounds (GC) by Method NWTPHGX

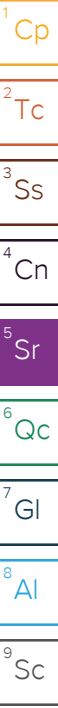
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	38.4	B J	31.6	100	1	05/02/2018 19:52	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 19:52	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	U		0.287	0.678	1	05/08/2018 13:33	WG1107969
Ethane	U		0.296	1.29	1	05/08/2018 13:33	WG1107969
Ethene	U		0.422	1.27	1	05/08/2018 13:33	WG1107969

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	3.35	J	1.05	25.0	1	05/02/2018 17:01	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 17:01	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 17:01	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 17:01	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 17:01	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 17:01	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 17:01	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 17:01	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 17:01	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 17:01	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 17:01	WG1105852
Carbon disulfide	U		0.101	0.500	1	05/02/2018 17:01	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 17:01	WG1105852





Collected date/time: 05/01/18 14:42

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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
Chlorobenzene	U		0.140	0.500	1	05/02/2018 17:01	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 17:01	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 17:01	WG105852
Chloroform	0.181	J	0.0860	0.500	1	05/02/2018 17:01	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 17:01	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 17:01	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 17:01	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 17:01	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 17:01	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 17:01	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 17:01	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 17:01	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 17:01	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 17:01	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 17:01	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 17:01	WG105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 17:01	WG105852
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/07/2018 20:45	WG105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 17:01	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 17:01	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 17:01	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 17:01	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 17:01	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 17:01	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 17:01	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 17:01	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 17:01	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 17:01	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 17:01	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 17:01	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 17:01	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 17:01	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 17:01	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 17:01	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 17:01	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 17:01	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 17:01	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 17:01	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 17:01	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 17:01	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 17:01	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 17:01	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 17:01	WG105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 17:01	WG105852
Tetrachloroethene	U		0.199	0.500	1	05/02/2018 17:01	WG105852
Toluene	U		0.412	0.500	1	05/02/2018 17:01	WG105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 17:01	WG105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 17:01	WG105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 17:01	WG105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 17:01	WG105852
Trichloroethene	U		0.153	0.500	1	05/02/2018 17:01	WG105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 17:01	WG105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 17:01	WG105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 17:01	WG105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 17:01	WG105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 17:01	WG105852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/01/18 14:42

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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
Vinyl acetate	U		0.645	5.00	1	05/02/2018 17:01	WG1105852
Vinyl chloride	U		0.118	0.500	1	05/07/2018 20:45	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 17:01	WG1105852
(S) Toluene-d8	102			80.0-120		05/07/2018 20:45	WG1105852
(S) Toluene-d8	104			80.0-120		05/02/2018 17:01	WG1105852
(S) Dibromofluoromethane	91.5			76.0-123		05/07/2018 20:45	WG1105852
(S) Dibromofluoromethane	97.7			76.0-123		05/02/2018 17:01	WG1105852
(S) 4-Bromofluorobenzene	82.9			80.0-120		05/02/2018 17:01	WG1105852
(S) 4-Bromofluorobenzene	96.7			80.0-120		05/07/2018 20:45	WG1105852

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	05/02/2018 17:53	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 17:53	WG1106035

- 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	05/02/2018 13:44	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 13:44	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 13:44	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 13:44	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 13:44	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 13:44	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 13:44	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 13:44	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 13:44	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 13:44	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 13:44	WG1105852
Carbon disulfide	U		0.101	0.500	1	05/02/2018 13:44	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 13:44	WG1105852
Chlorobenzene	U		0.140	0.500	1	05/02/2018 13:44	WG1105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 13:44	WG1105852
Chloroethane	U		0.141	2.50	1	05/02/2018 13:44	WG1105852
Chloroform	U		0.0860	0.500	1	05/02/2018 13:44	WG1105852
Chloromethane	U		0.153	1.25	1	05/02/2018 13:44	WG1105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 13:44	WG1105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 13:44	WG1105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 13:44	WG1105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 13:44	WG1105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 13:44	WG1105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 13:44	WG1105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 13:44	WG1105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 13:44	WG1105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 13:44	WG1105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 13:44	WG1105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 13:44	WG1105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 13:44	WG1105852
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/02/2018 13:44	WG1105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 13:44	WG1105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 13:44	WG1105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 13:44	WG1105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 13:44	WG1105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 13:44	WG1105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 13:44	WG1105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 13:44	WG1105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 13:44	WG1105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 13:44	WG1105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 13:44	WG1105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 13:44	WG1105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 13:44	WG1105852
n-Hexane	U		0.305	5.00	1	05/02/2018 13:44	WG1105852
Iodomethane	U		0.377	10.0	1	05/02/2018 13:44	WG1105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 13:44	WG1105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 13:44	WG1105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 13:44	WG1105852



Collected date/time: 05/01/18 00:00

L990247

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	05/02/2018 13:44	WG1105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 13:44	WG1105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 13:44	WG1105852
Naphthalene	U		0.174	2.50	1	05/02/2018 13:44	WG1105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 13:44	WG1105852
Styrene	U		0.117	0.500	1	05/02/2018 13:44	WG1105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 13:44	WG1105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 13:44	WG1105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 13:44	WG1105852
Tetrachloroethene	U		0.199	0.500	1	05/02/2018 13:44	WG1105852
Toluene	U		0.412	0.500	1	05/02/2018 13:44	WG1105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 13:44	WG1105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 13:44	WG1105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 13:44	WG1105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 13:44	WG1105852
Trichloroethene	U		0.153	0.500	1	05/02/2018 13:44	WG1105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 13:44	WG1105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 13:44	WG1105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 13:44	WG1105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 13:44	WG1105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 13:44	WG1105852
Vinyl acetate	U		0.645	5.00	1	05/02/2018 13:44	WG1105852
Vinyl chloride	U		0.118	0.500	1	05/02/2018 13:44	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 13:44	WG1105852
(S) Toluene-d8	105			80.0-120		05/02/2018 13:44	WG1105852
(S) Dibromofluoromethane	95.2			76.0-123		05/02/2018 13:44	WG1105852
(S) 4-Bromofluorobenzene	82.0			80.0-120		05/02/2018 13:44	WG1105852

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



L990458-02 Original Sample (OS) • Duplicate (DUP)

(OS) L990458-02 05/07/18 21:23 • (DUP) R3307763-1 05/07/18 21:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l	%			
Alkalinity	549000	567000	1	3.22		20

Sample Narrative:

OS: Endpoint pH 4.5
 DUP: Endpoint pH 4.5

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

L990272-16 Original Sample (OS) • Duplicate (DUP)

(OS) L990272-16 05/08/18 07:39 • (DUP) R3307763-6 05/08/18 07:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l	%			
Alkalinity	286000	292000	1	1.96		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace
 DUP: Endpoint pH 4.5

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3307763-4 05/07/18 23:03 • (LCSD) R3307763-5 05/08/18 00:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	101000	97700	101	97.7	85.0-115			2.85	20

Sample Narrative:

LCS: Endpoint pH 4.5
 LCSD: Endpoint pH 4.5



Method Blank (MB)

(MB) R3306774-1 05/02/18 13:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Chloride	U		51.9	1000
Nitrate	U		22.7	100
Sulfate	109	↓	77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L990245-05 Original Sample (OS) • Duplicate (DUP)

(OS) L990245-05 05/02/18 20:40 • (DUP) R3306774-4 05/02/18 20:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	9870	9160	1	7.48		15
Nitrate	857	894	1	4.22		15
Sulfate	34300	34400	1	0.326		15

L990247-06 Original Sample (OS) • Duplicate (DUP)

(OS) L990247-06 05/03/18 00:15 • (DUP) R3306774-7 05/03/18 00:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	864	0.000	1	200	P1	15
Nitrate	U	0.000	1	0.000		15
Sulfate	U	0.000	1	0.000		15

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

(LCS) R3306774-2 05/02/18 13:37 • (LCSD) R3306774-3 05/02/18 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	%	%	%			%	%
Chloride	40000	39800	39800	99.4	99.5	80.0-120			0.117	15
Nitrate	8000	8180	8110	102	101	80.0-120			0.854	15
Sulfate	40000	40000	39800	100	99.6	80.0-120			0.429	15



L990245-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L990245-05 05/02/18 20:40 • (MS) R3306774-5 05/02/18 21:10 • (MSD) R3306774-6 05/02/18 21:26

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	9870	73600	59900	127	100	1	80.0-120	J5	J3	20.6	15
Nitrate	5000	857	5810	5890	99.0	101	1	80.0-120			1.41	15
Sulfate	50000	34300	83800	84100	99.0	99.6	1	80.0-120			0.352	15

L990247-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L990247-06 05/03/18 00:15 • (MS) R3306774-8 05/03/18 00:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	864	51200	101	1	80.0-120	
Nitrate	5000	U	4840	96.7	1	80.0-120	
Sulfate	50000	U	50400	101	1	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



[L990247-01,02,04,05,06](#)

Method Blank (MB)

(MB) R3307261-1 05/04/18 11:30

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

L990207-01 Original Sample (OS) • Duplicate (DUP)

(OS) L990207-01 05/04/18 16:12 • (DUP) R3307261-3 05/04/18 16:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	3240	3300	1	1.65		20

L990256-01 Original Sample (OS) • Duplicate (DUP)

(OS) L990256-01 05/04/18 22:50 • (DUP) R3307261-7 05/04/18 23:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1500	1540	1	2.57		20

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

(LCS) R3307261-2 05/04/18 12:21 • (LCSD) R3307261-4 05/04/18 18:08

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	68600	68300	91.5	91.1	85.0-115			0.424	20

L990245-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L990245-09 05/04/18 19:14 • (MS) R3307261-5 05/04/18 19:34 • (MSD) R3307261-6 05/04/18 19:51

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	522	46600	46800	92.1	92.5	1	80.0-120			0.450	20



Method Blank (MB)

(MB) R3307226-1 05/04/18 15:00

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) R3307226-2 05/04/18 15:04 • (LCSD) R3307226-3 05/04/18 15:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	4980	4900	99.6	98.0	80.0-120			1.54	20
Manganese	50.0	48.4	47.8	96.9	95.6	80.0-120			1.30	20

5 Sr

6 Qc

L991047-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L991047-02 05/04/18 15:13 • (MS) R3307226-5 05/04/18 15:23 • (MSD) R3307226-6 05/04/18 15:27

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	108	4960	4980	97.1	97.4	1	75.0-125			0.297	20
Manganese	50.0	5350	5330	5360	0.000	37.7	1	75.0-125	V	V	0.678	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3306868-3 05/02/18 12:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	35.5	↓	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

(LCS) R3306868-1 05/02/18 10:10 • (LCSD) R3306868-2 05/02/18 11:17

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	5680	4750	103	86.3	72.0-134			17.8	20
(S) a,a,a-Trifluorotoluene(FID)				93.5	93.9	77.0-122				

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3307795-1 05/08/18 10:17

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

L989898-02 Original Sample (OS) • Duplicate (DUP)

(OS) L989898-02 05/08/18 10:25 • (DUP) R3307795-2 05/08/18 10:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	352	349	1	0.900		20
Ethane	15.7	15.3	1	3.03		20
Ethene	11.0	11.2	1	1.60		20

L989972-09 Original Sample (OS) • Duplicate (DUP)

(OS) L989972-09 05/08/18 11:03 • (DUP) R3307795-3 05/08/18 11:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	1080	1090	1	0.765		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) R3307795-4 05/08/18 11:41 • (LCSD) R3307795-5 05/08/18 11:44

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	71.2	72.4	105	107	85.0-115			1.68	20
Ethane	129	115	115	89.1	89.0	85.0-115			0.0186	20
Ethene	127	116	116	91.6	91.6	85.0-115			0.0834	20



Method Blank (MB)

(MB) R3307876-1 05/08/18 13:20

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

L990272-03 Original Sample (OS) • Duplicate (DUP)

(OS) L990272-03 05/08/18 13:35 • (DUP) R3307876-2 05/08/18 13:57

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

L990458-06 Original Sample (OS) • Duplicate (DUP)

(OS) L990458-06 05/08/18 14:25 • (DUP) R3307876-3 05/08/18 14:42

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

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

(LCS) R3307876-4 05/08/18 14:45 • (LCSD) R3307876-5 05/08/18 14:48

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	72.2	71.3	107	105	85.0-115			1.28	20
Ethane	129	115	116	88.8	90.3	85.0-115			1.70	20
Ethene	127	117	118	91.8	93.2	85.0-115			1.44	20



Method Blank (MB)

(MB) R3307630-2 05/02/18 13:04

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
Bromochloromethane	U		0.145	0.500
Bromodichloromethane	U		0.0800	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
Carbon disulfide	U		0.101	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	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-1,4-Dichloro-2-butene	U		0.257	5.00
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
2-Hexanone	U		0.757	5.00
cis-1,3-Dichloropropene	U		0.0976	0.500
n-Hexane	U		0.305	5.00
trans-1,3-Dichloropropene	U		0.222	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3307630-2 05/02/18 13:04

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
2,2-Dichloropropane	U		0.0929	0.500
Iodomethane	U		0.377	10.0
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
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
Vinyl acetate	U		0.645	5.00
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
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	104			80.0-120
(S) Dibromofluoromethane	96.9			76.0-123
(S) 4-Bromofluorobenzene	84.1			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)

(LCS) R3307630-1 05/02/18 12:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromochloromethane	25.0	28.0	112	76.0-122	
Carbon disulfide	25.0	27.7	111	55.0-127	
trans-1,4-Dichloro-2-butene	25.0	27.5	110	55.0-134	
2-Hexanone	125	135	108	58.0-147	
n-Hexane	25.0	28.5	114	56.0-124	
Iodomethane	125	142	113	57.0-140	
Acetone	125	88.3	70.6	10.0-160	
Acrylonitrile	125	118	94.6	60.0-142	
Benzene	25.0	27.0	108	69.0-123	
Bromobenzene	25.0	24.4	97.6	79.0-120	
Bromodichloromethane	25.0	24.1	96.4	76.0-120	
Bromoform	25.0	23.3	93.3	67.0-132	
Bromomethane	25.0	28.1	113	18.0-160	
n-Butylbenzene	25.0	27.9	112	72.0-126	
sec-Butylbenzene	25.0	28.5	114	74.0-121	
tert-Butylbenzene	25.0	27.1	109	75.0-122	
Carbon tetrachloride	25.0	27.4	110	63.0-122	
Chlorobenzene	25.0	28.5	114	79.0-121	
Chlorodibromomethane	25.0	27.3	109	75.0-125	
Chloroethane	25.0	27.4	109	47.0-152	
Chloroform	25.0	25.4	102	72.0-121	
Chloromethane	25.0	25.7	103	48.0-139	
2-Chlorotoluene	25.0	27.1	108	74.0-122	
Vinyl acetate	125	136	109	46.0-160	
4-Chlorotoluene	25.0	27.0	108	79.0-120	
1,2-Dibromo-3-Chloropropane	25.0	24.8	99.1	64.0-127	
1,2-Dibromoethane	25.0	26.6	107	77.0-123	
Dibromomethane	25.0	25.3	101	78.0-120	
1,2-Dichlorobenzene	25.0	27.2	109	80.0-120	
1,3-Dichlorobenzene	25.0	27.4	109	72.0-123	
1,4-Dichlorobenzene	25.0	26.9	108	77.0-120	
Dichlorodifluoromethane	25.0	28.8	115	49.0-155	
1,1-Dichloroethane	25.0	27.6	111	70.0-126	
1,2-Dichloroethane	25.0	27.7	111	67.0-126	
1,1-Dichloroethene	25.0	26.4	105	64.0-129	
cis-1,2-Dichloroethene	25.0	26.2	105	73.0-120	
trans-1,2-Dichloroethene	25.0	27.7	111	71.0-121	
1,2-Dichloropropane	25.0	27.0	108	75.0-125	
1,1-Dichloropropene	25.0	28.6	114	71.0-129	
1,3-Dichloropropane	25.0	27.1	108	80.0-121	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS)

(LCS) R3307630-1 05/02/18 12:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
cis-1,3-Dichloropropene	25.0	27.3	109	79.0-123	
trans-1,3-Dichloropropene	25.0	27.1	108	74.0-127	
2,2-Dichloropropane	25.0	25.9	104	60.0-125	
Di-isopropyl ether	25.0	25.8	103	59.0-133	
Ethylbenzene	25.0	28.3	113	77.0-120	
Hexachloro-1,3-butadiene	25.0	27.1	109	64.0-131	
Isopropylbenzene	25.0	23.2	93.0	75.0-120	
p-Isopropyltoluene	25.0	27.4	109	74.0-126	
2-Butanone (MEK)	125	119	94.9	37.0-158	
Methylene Chloride	25.0	25.4	102	66.0-121	
4-Methyl-2-pentanone (MIBK)	125	132	106	59.0-143	
Methyl tert-butyl ether	25.0	25.8	103	64.0-123	
Naphthalene	25.0	27.1	108	62.0-128	
n-Propylbenzene	25.0	25.6	102	79.0-120	
Styrene	25.0	23.2	92.9	78.0-124	
1,1,1,2-Tetrachloroethane	25.0	27.3	109	75.0-122	
1,1,2,2-Tetrachloroethane	25.0	23.5	94.0	71.0-122	
Tetrachloroethene	25.0	30.1	120	70.0-127	
Toluene	25.0	27.2	109	77.0-120	
1,1,2-Trichlorotrifluoroethane	25.0	29.5	118	61.0-136	
1,2,3-Trichlorobenzene	25.0	27.9	112	61.0-133	
1,2,4-Trichlorobenzene	25.0	28.9	116	69.0-129	
1,1,1-Trichloroethane	25.0	26.9	108	68.0-122	
1,1,2-Trichloroethane	25.0	26.0	104	78.0-120	
Trichloroethene	25.0	27.9	111	78.0-120	
Trichlorofluoromethane	25.0	28.4	114	56.0-137	
1,2,3-Trichloropropane	25.0	24.9	99.7	72.0-124	
1,2,3-Trimethylbenzene	25.0	26.7	107	75.0-120	
1,2,4-Trimethylbenzene	25.0	27.0	108	75.0-120	
1,3,5-Trimethylbenzene	25.0	27.2	109	75.0-120	
Vinyl chloride	25.0	29.3	117	64.0-133	
Xylenes, Total	75.0	84.8	113	77.0-120	
(S) Toluene-d8			102	80.0-120	
(S) Dibromofluoromethane			97.6	76.0-123	
(S) 4-Bromofluorobenzene			84.5	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
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.



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.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

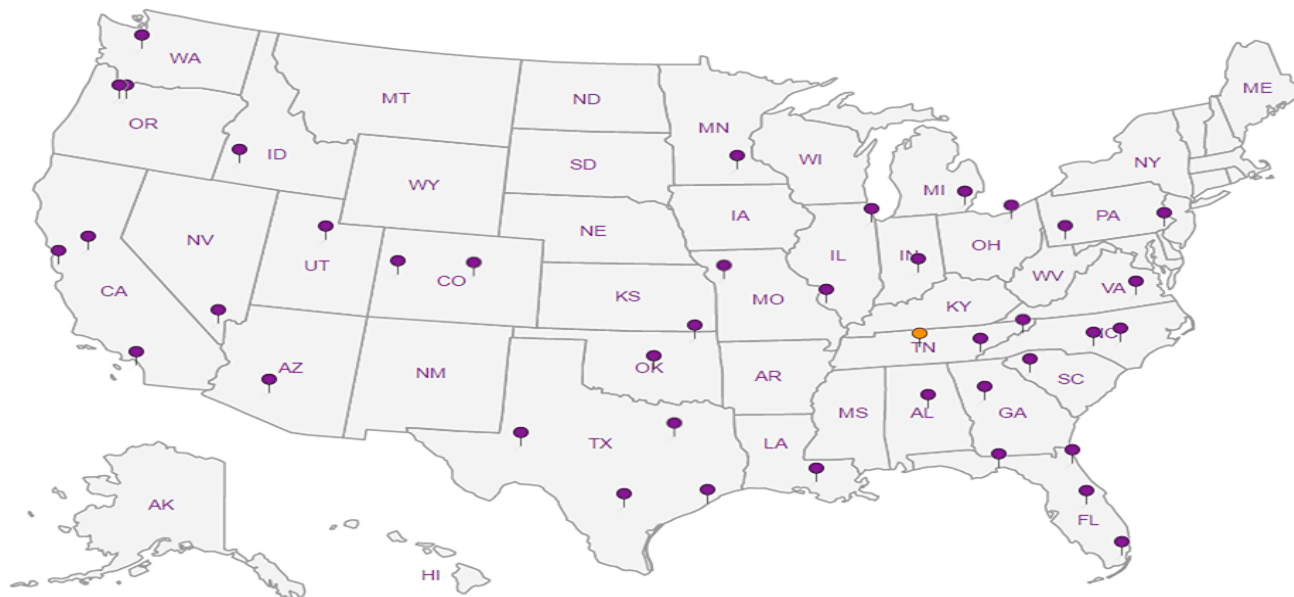
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater 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

Report to:
Brian O'Neal/Bill Haldeman

Project Description: **American Linen**

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

Collected by (print):
Jeff Dolbush

Collected by (signature):

Immediately Packed on Ice: N Y

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

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

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

Lab Project #
PESENVSWA-ALP

P.O. #

Quote #

Rush? (Lab MUST Be Notified)

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

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



LAB SCIENCES

a subsidiary of

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



L# **L990247**
C097

Acctnum: **PESENVSWA**

Template: **T134663**

Prelogin: **P647547**

TSR: **110 - Brian Ford**

PB: **4-4-18 chr**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260C VOCs 40ml/NaHSO4/Syr/MeOH	dry wt, voc screen 2ozClr-NoPres	N03/504, C1ALK 250mlHDRE-NoPres	NWTPAGX 40mlAmb HCl	RSK175LLEEN 40mlAmb HCl	XTalFe Mx6020 250mlHDRE HNO3	TOX 250ml Amb HCl	V8260C VOCs 40mlAmb HCl	Remarks	Sample # (lab only)
MW-148-050118	Grab	SS-GW		5/1/18	0855	11			X	X	X	X	X	X		-01
MW-153-050118		SS-GW		5/1/18	1102	11			X	X	X	X	X	X		-02
IW-11D-050118		SS-GW		5/1/18	1243	3								X		-03
MW-905-050118		SS-GW		5/1/18	1108	11			X	X	X	X	X	X		-04
MW-147-050118		SS-GW		5/1/18	1353	11			X	X	X	X	X	X		-05
EQ-050118		SS-GW		5/1/18	1442	11			X	X	X	X	X	X		-06
TRIPBLANK-050118		SS-GW		5/1/18	-	1				X				X		-07
		SS														
		SS														
		SS														

* 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 # **496 3258 7990**

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: **5/1/18** Time: **1540**

Received by: (Signature)

Trip Blank Received: Yes No
 HCL MeOH

Relinquished by: (Signature)

Date: _____ Time: _____

Received by: (Signature)

Temp: **7.4** °C Bottles Received: **57**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: _____ Time: _____

Received for lab by: (Signature)

Date: **5/2/18** Time: **0845**

Hold:

Condition:
NCF / OK

Katie Ingram

FSC Lab Sciences
Non-Conformance Form

Login #:1990247	Client:PESENVSWA	Date:05/02/18	Evaluated by: Myra "Katie" Ingram
-----------------	------------------	---------------	-----------------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	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 / Courie Sample was frozen
Insufficient sample volume.	Received additional samples not listed on coc.	Container lid not intact
Sample is biphasic.	Sample ids on containers do not match ids on coc	If no Chain of Custody:
Vials received with headspace.	Trip Blank not received.	Received by:
X Broken container	Client did not "X" analysis.	Date/Time:
Broken container:	Chain of Custody is missing	Temp./Cont Rec./pH:
Sufficient sample remains		Carrier:
		Tracking#

Login Comments:

One of the vials for the ID: EQ-050118 was received broken

Client informed by:	Call	Email	Voice Mail	Date:	Time:
TSR Initials:bjf	Client Contact:				

Login Instructions:

Proceed with remaining sample volume

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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	170000		2710	20000	1	05/07/2018 23:35	WG1107743

Sample Narrative:

L990247-01 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22200		51.9	1000	1	05/02/2018 23:14	WG1105796
Nitrate	U		22.7	100	1	05/02/2018 23:14	WG1105796
Sulfate	95500		77.4	5000	1	05/02/2018 23:14	WG1105796

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)	2460		102	1000	1	05/04/2018 20:23	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	12000		15.0	100	1	05/04/2018 15:32	WG1106119
Manganese	439		0.250	5.00	1	05/04/2018 15:32	WG1106119

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	05/02/2018 18:17	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 18:17	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1210		0.287	0.678	1	05/08/2018 11:21	WG1107967
Ethane	U		0.296	1.29	1	05/08/2018 11:21	WG1107967
Ethene	U		0.422	1.27	1	05/08/2018 11:21	WG1107967

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	6.56 U	J	1.05	25.0	1	05/02/2018 15:22	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 15:22	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 15:22	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 15:22	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 15:22	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 15:22	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 15:22	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 15:22	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 15:22	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 15:22	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 15:22	WG1105852
Carbon disulfide	1.01		0.101	0.500	1	05/02/2018 15:22	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 15:22	WG1105852

JC 6/11/18

1 Cp

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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
Chlorobenzene	U		0.140	0.500	1	05/02/2018 15:22	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 15:22	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 15:22	WG105852
Chloroform	U		0.0860	0.500	1	05/02/2018 15:22	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 15:22	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 15:22	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 15:22	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 15:22	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 15:22	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 15:22	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 15:22	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 15:22	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 15:22	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 15:22	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 15:22	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 15:22	WG105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 15:22	WG105852
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/02/2018 15:22	WG105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 15:22	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 15:22	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 15:22	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 15:22	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 15:22	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 15:22	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 15:22	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 15:22	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 15:22	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 15:22	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 15:22	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 15:22	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 15:22	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 15:22	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 15:22	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 15:22	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 15:22	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 15:22	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 15:22	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 15:22	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 15:22	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 15:22	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 15:22	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 15:22	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 15:22	WG105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 15:22	WG105852
Tetrachloroethene	U		0.199	0.500	1	05/02/2018 15:22	WG105852
Toluene	U		0.412	0.500	1	05/02/2018 15:22	WG105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 15:22	WG105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 15:22	WG105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 15:22	WG105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 15:22	WG105852
Trichloroethene	U		0.153	0.500	1	05/02/2018 15:22	WG105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 15:22	WG105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 15:22	WG105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 15:22	WG105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 15:22	WG105852 JC 6/11/18
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 15:22	WG105852

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
Vinyl acetate	U		0.645	5.00	1	05/02/2018 15:22	WG1105852
Vinyl chloride	U		0.118	0.500	1	05/02/2018 15:22	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 15:22	WG1105852
<i>(S) Toluene-d8</i>	106			80.0-120		05/02/2018 15:22	WG1105852
<i>(S) Dibromofluoromethane</i>	96.2			76.0-123		05/02/2018 15:22	WG1105852
<i>(S) 4-Bromofluorobenzene</i>	80.9			80.0-120		05/02/2018 15:22	WG1105852

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

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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	148000		2710	20000	1	05/07/2018 23:43	WG1107743

Sample Narrative:

L990247-02 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	23800		51.9	1000	1	05/02/2018 23:29	WG1105796
Nitrate	U		22.7	100	1	05/02/2018 23:29	WG1105796
Sulfate	23700		77.4	5000	1	05/02/2018 23:29	WG1105796

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)	1260		102	1000	1	05/04/2018 20:40	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	1010		15.0	100	1	05/04/2018 15:36	WG1106119
Manganese	187		0.250	5.00	1	05/04/2018 15:36	WG1106119

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	05/02/2018 18:41	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 18:41	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	74.3		0.287	0.678	1	05/08/2018 11:28	WG1107967
Ethane	U		0.296	1.29	1	05/08/2018 11:28	WG1107967
Ethene	U		0.422	1.27	1	05/08/2018 11:28	WG1107967

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	2.65	U J	1.05	25.0	1	05/02/2018 15:42	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 15:42	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 15:42	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 15:42	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 15:42	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 15:42	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 15:42	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 15:42	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 15:42	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 15:42	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 15:42	WG1105852
Carbon disulfide	4.54		0.101	0.500	1	05/02/2018 15:42	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 15:42	WG1105852

JC 6/11/18

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
Chlorobenzene	U		0.140	0.500	1	05/02/2018 15:42	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 15:42	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 15:42	WG105852
Chloroform	0.870		0.0860	0.500	1	05/02/2018 15:42	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 15:42	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 15:42	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 15:42	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 15:42	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 15:42	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 15:42	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 15:42	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 15:42	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 15:42	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 15:42	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 15:42	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 15:42	WG105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 15:42	WG105852
cis-1,2-Dichloroethene	0.612		0.0933	0.500	1	05/02/2018 15:42	WG105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 15:42	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 15:42	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 15:42	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 15:42	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 15:42	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 15:42	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 15:42	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 15:42	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 15:42	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 15:42	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 15:42	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 15:42	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 15:42	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 15:42	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 15:42	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 15:42	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 15:42	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 15:42	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 15:42	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 15:42	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 15:42	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 15:42	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 15:42	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 15:42	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 15:42	WG105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 15:42	WG105852
Tetrachloroethene	0.756		0.199	0.500	1	05/02/2018 15:42	WG105852
Toluene	U		0.412	0.500	1	05/02/2018 15:42	WG105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 15:42	WG105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 15:42	WG105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 15:42	WG105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 15:42	WG105852
Trichloroethene	U		0.153	0.500	1	05/02/2018 15:42	WG105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 15:42	WG105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 15:42	WG105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 15:42	WG105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 15:42	WG105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 15:42	WG105852

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

JC 6/11/18



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	05/02/2018 15:42	WG1105852
Vinyl chloride	9.56		0.118	0.500	1	05/02/2018 15:42	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 15:42	WG1105852
<i>(S) Toluene-d8</i>	104			80.0-120		05/02/2018 15:42	WG1105852
<i>(S) Dibromofluoromethane</i>	95.3			76.0-123		05/02/2018 15:42	WG1105852
<i>(S) 4-Bromofluorobenzene</i>	82.2			80.0-120		05/02/2018 15:42	WG1105852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18



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	3.92	U J	1.05	25.0	1	05/02/2018 16:01	WG105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 16:01	WG105852
Benzene	U		0.0896	0.500	1	05/02/2018 16:01	WG105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 16:01	WG105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 16:01	WG105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 16:01	WG105852
Bromoform	U		0.186	0.500	1	05/02/2018 16:01	WG105852
Bromomethane	U		0.157	2.50	1	05/02/2018 16:01	WG105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 16:01	WG105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 16:01	WG105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 16:01	WG105852
Carbon disulfide	0.792		0.101	0.500	1	05/02/2018 16:01	WG105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 16:01	WG105852
Chlorobenzene	U		0.140	0.500	1	05/02/2018 16:01	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 16:01	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 16:01	WG105852
Chloroform	U		0.0860	0.500	1	05/02/2018 16:01	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 16:01	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 16:01	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 16:01	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 16:01	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 16:01	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 16:01	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 16:01	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 16:01	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 16:01	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 16:01	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 16:01	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 16:01	WG105852
1,1-Dichloroethene	18.0		0.188	0.500	1	05/02/2018 16:01	WG105852
cis-1,2-Dichloroethene	1640		4.66	25.0	50	05/07/2018 19:46	WG105852
trans-1,2-Dichloroethene	2.27		0.152	0.500	1	05/02/2018 16:01	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 16:01	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 16:01	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 16:01	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 16:01	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 16:01	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 16:01	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 16:01	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 16:01	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 16:01	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 16:01	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 16:01	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 16:01	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 16:01	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 16:01	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 16:01	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 16:01	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 16:01	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 16:01	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 16:01	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 16:01	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 16:01	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 16:01	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 16:01	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 16:01	WG105852

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

JC 6/11/18



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	05/02/2018 16:01	WG1105852
Tetrachloroethene	18.9		0.199	0.500	1	05/02/2018 16:01	WG1105852
Toluene	0.643		0.412	0.500	1	05/02/2018 16:01	WG1105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 16:01	WG1105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 16:01	WG1105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 16:01	WG1105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 16:01	WG1105852
Trichloroethene	282		7.65	25.0	50	05/07/2018 19:46	WG1105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 16:01	WG1105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 16:01	WG1105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 16:01	WG1105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 16:01	WG1105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 16:01	WG1105852
Vinyl acetate	U		0.645	5.00	1	05/02/2018 16:01	WG1105852
Vinyl chloride	34.1		0.118	0.500	1	05/02/2018 16:01	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 16:01	WG1105852
(S) Toluene-d8	105			80.0-120		05/02/2018 16:01	WG1105852
(S) Toluene-d8	102			80.0-120		05/07/2018 19:46	WG1105852
(S) Dibromofluoromethane	89.5			76.0-123		05/07/2018 19:46	WG1105852
(S) Dibromofluoromethane	96.2			76.0-123		05/02/2018 16:01	WG1105852
(S) 4-Bromofluorobenzene	82.4			80.0-120		05/02/2018 16:01	WG1105852
(S) 4-Bromofluorobenzene	96.4			80.0-120		05/07/2018 19:46	WG1105852

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

JC 6/11/18



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	162000		2710	20000	1	05/07/2018 23:51	WG1107743

Sample Narrative:

L990247-04 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22500		51.9	1000	1	05/02/2018 23:45	WG1105796
Nitrate	U		22.7	100	1	05/02/2018 23:45	WG1105796
Sulfate	96100		77.4	5000	1	05/02/2018 23:45	WG1105796

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)	2530		102	1000	1	05/04/2018 20:54	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	11200		15.0	100	1	05/04/2018 15:55	WG1106119
Manganese	379		0.250	5.00	1	05/04/2018 15:55	WG1106119

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	05/02/2018 19:05	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 19:05	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1140		0.287	0.678	1	05/08/2018 13:26	WG1107969
Ethane	U		0.296	1.29	1	05/08/2018 13:26	WG1107969
Ethene	U		0.422	1.27	1	05/08/2018 13:26	WG1107969

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	5.73	U	1.05	25.0	1	05/02/2018 16:21	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 16:21	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 16:21	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 16:21	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 16:21	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 16:21	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 16:21	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 16:21	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 16:21	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 16:21	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 16:21	WG1105852
Carbon disulfide	1.14		0.101	0.500	1	05/02/2018 16:21	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 16:21	WG1105852

JC 6/11/18

- 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
Chlorobenzene	U		0.140	0.500	1	05/02/2018 16:21	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 16:21	WG105852
Chloroethane	U		0.141	2.50	1	05/02/2018 16:21	WG105852
Chloroform	U		0.0860	0.500	1	05/02/2018 16:21	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 16:21	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 16:21	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 16:21	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 16:21	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 16:21	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 16:21	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 16:21	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 16:21	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 16:21	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 16:21	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 16:21	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 16:21	WG105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 16:21	WG105852
cis-1,2-Dichloroethene	0.216	J U	0.0933	0.500	1	05/07/2018 20:05	WG105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 16:21	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 16:21	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 16:21	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 16:21	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 16:21	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 16:21	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 16:21	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 16:21	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 16:21	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 16:21	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 16:21	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 16:21	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 16:21	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 16:21	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 16:21	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 16:21	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 16:21	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 16:21	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 16:21	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 16:21	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 16:21	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 16:21	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 16:21	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 16:21	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 16:21	WG105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 16:21	WG105852
Tetrachloroethene	U		0.199	0.500	1	05/02/2018 16:21	WG105852
Toluene	U		0.412	0.500	1	05/02/2018 16:21	WG105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 16:21	WG105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 16:21	WG105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 16:21	WG105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 16:21	WG105852
Trichloroethene	U		0.153	0.500	1	05/07/2018 20:05	WG105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 16:21	WG105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 16:21	WG105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 16:21	WG105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 16:21	WG105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 16:21	WG105852

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

JC 6/11/18



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	05/02/2018 16:21	WG1105852
Vinyl chloride	U		0.118	0.500	1	05/02/2018 16:21	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 16:21	WG1105852
(S) Toluene-d8	106			80.0-120		05/02/2018 16:21	WG1105852
(S) Toluene-d8	98.5			80.0-120		05/07/2018 20:05	WG1105852
(S) Dibromofluoromethane	92.3			76.0-123		05/07/2018 20:05	WG1105852
(S) Dibromofluoromethane	96.5			76.0-123		05/02/2018 16:21	WG1105852
(S) 4-Bromofluorobenzene	96.3			80.0-120		05/07/2018 20:05	WG1105852
(S) 4-Bromofluorobenzene	80.5			80.0-120		05/02/2018 16:21	WG1105852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	302000		2710	20000	1	05/07/2018 23:58	WG1107743

Sample Narrative:

L990247-05 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	40800		51.9	1000	1	05/03/2018 00:00	WG1105796
Nitrate	U		22.7	100	1	05/03/2018 00:00	WG1105796
Sulfate	183000		387	25000	5	05/03/2018 12:23	WG1105796

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)	21300		102	1000	1	05/04/2018 21:13	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	17100		15.0	100	1	05/04/2018 16:00	WG1106119
Manganese	564		0.250	5.00	1	05/04/2018 16:00	WG1106119

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	484		31.6	100	1	05/02/2018 19:28	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-122		05/02/2018 19:28	WG1106035

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	5060		0.287	0.678	1	05/08/2018 13:28	WG1107969
Ethane	10.7		0.296	1.29	1	05/08/2018 13:28	WG1107969
Ethene	144		0.422	1.27	1	05/08/2018 13:28	WG1107969

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	3.16	U	1.05	25.0	1	05/02/2018 16:41	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 16:41	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 16:41	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 16:41	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 16:41	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 16:41	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 16:41	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 16:41	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 16:41	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 16:41	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 16:41	WG1105852
Carbon disulfide	6.02		0.101	0.500	1	05/02/2018 16:41	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 16:41	WG1105852

JC 6/11/18

- 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
Chlorobenzene	U		0.140	0.500	1	05/02/2018 16:41	WG105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 16:41	WG105852
Chloroethane	2.01	J	0.141	2.50	1	05/02/2018 16:41	WG105852
Chloroform	U		0.0860	0.500	1	05/02/2018 16:41	WG105852
Chloromethane	U		0.153	1.25	1	05/02/2018 16:41	WG105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 16:41	WG105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 16:41	WG105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 16:41	WG105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 16:41	WG105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 16:41	WG105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 16:41	WG105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 16:41	WG105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 16:41	WG105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 16:41	WG105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 16:41	WG105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 16:41	WG105852
1,1-Dichloroethene	4.59		0.188	0.500	1	05/02/2018 16:41	WG105852
cis-1,2-Dichloroethene	399		2.33	12.5	25	05/07/2018 20:25	WG105852
trans-1,2-Dichloroethene	2.09		0.152	0.500	1	05/02/2018 16:41	WG105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 16:41	WG105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 16:41	WG105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 16:41	WG105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 16:41	WG105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 16:41	WG105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 16:41	WG105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 16:41	WG105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 16:41	WG105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 16:41	WG105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 16:41	WG105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 16:41	WG105852
n-Hexane	U		0.305	5.00	1	05/02/2018 16:41	WG105852
Iodomethane	U		0.377	10.0	1	05/02/2018 16:41	WG105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 16:41	WG105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 16:41	WG105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 16:41	WG105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 16:41	WG105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 16:41	WG105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 16:41	WG105852
Naphthalene	U		0.174	2.50	1	05/02/2018 16:41	WG105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 16:41	WG105852
Styrene	U		0.117	0.500	1	05/02/2018 16:41	WG105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 16:41	WG105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 16:41	WG105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 16:41	WG105852
Tetrachloroethene	19.8		0.199	0.500	1	05/02/2018 16:41	WG105852
Toluene	U		0.412	0.500	1	05/02/2018 16:41	WG105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 16:41	WG105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 16:41	WG105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 16:41	WG105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 16:41	WG105852
Trichloroethene	83.4		0.153	0.500	1	05/02/2018 16:41	WG105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 16:41	WG105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 16:41	WG105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 16:41	WG105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 16:41	WG105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 16:41	WG105852

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

JC 6/11/18



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	05/02/2018 16:41	WG1105852
Vinyl chloride	1150		2.95	12.5	25	05/07/2018 20:25	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 16:41	WG1105852
(S) Toluene-d8	106			80.0-120		05/02/2018 16:41	WG1105852
(S) Toluene-d8	99.7			80.0-120		05/07/2018 20:25	WG1105852
(S) Dibromofluoromethane	97.1			76.0-123		05/02/2018 16:41	WG1105852
(S) Dibromofluoromethane	95.1			76.0-123		05/07/2018 20:25	WG1105852
(S) 4-Bromofluorobenzene	81.1			80.0-120		05/02/2018 16:41	WG1105852
(S) 4-Bromofluorobenzene	94.1			80.0-120		05/07/2018 20:25	WG1105852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	6640	J	2710	20000	1	05/08/2018 08:40	WG1107743

Sample Narrative:

L990247-06 WG1107743: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	864	J	51.9	1000	1	05/03/2018 00:15	WG1105796
Nitrate	U		22.7	100	1	05/03/2018 00:15	WG1105796
Sulfate	U		77.4	5000	1	05/03/2018 00:15	WG1105796

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)	104	J	102	1000	1	05/04/2018 21:25	WG1106959

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	U		15.0	100	1	05/04/2018 16:04	WG1106119
Manganese	1.05	J	0.250	5.00	1	05/04/2018 16:04	WG1106119

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	38.4	U	31.6	100	1	05/02/2018 19:52	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 19:52	WG1106035

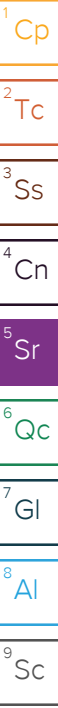
Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	U		0.287	0.678	1	05/08/2018 13:33	WG1107969
Ethane	U		0.296	1.29	1	05/08/2018 13:33	WG1107969
Ethene	U		0.422	1.27	1	05/08/2018 13:33	WG1107969

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	3.35	J	1.05	25.0	1	05/02/2018 17:01	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 17:01	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 17:01	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 17:01	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 17:01	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 17:01	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 17:01	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 17:01	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 17:01	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 17:01	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 17:01	WG1105852
Carbon disulfide	U		0.101	0.500	1	05/02/2018 17:01	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 17:01	WG1105852

JC 6/11/18





Collected date/time: 05/01/18 14:42

L990247

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.140	0.500	1	05/02/2018 17:01	WG1105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 17:01	WG1105852
Chloroethane	U		0.141	2.50	1	05/02/2018 17:01	WG1105852
Chloroform	0.181	J	0.0860	0.500	1	05/02/2018 17:01	WG1105852
Chloromethane	U		0.153	1.25	1	05/02/2018 17:01	WG1105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 17:01	WG1105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 17:01	WG1105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 17:01	WG1105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 17:01	WG1105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 17:01	WG1105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 17:01	WG1105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 17:01	WG1105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 17:01	WG1105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 17:01	WG1105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 17:01	WG1105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 17:01	WG1105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 17:01	WG1105852
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/07/2018 20:45	WG1105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 17:01	WG1105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 17:01	WG1105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 17:01	WG1105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 17:01	WG1105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 17:01	WG1105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 17:01	WG1105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 17:01	WG1105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 17:01	WG1105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 17:01	WG1105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 17:01	WG1105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 17:01	WG1105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 17:01	WG1105852
n-Hexane	U		0.305	5.00	1	05/02/2018 17:01	WG1105852
Iodomethane	U		0.377	10.0	1	05/02/2018 17:01	WG1105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 17:01	WG1105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 17:01	WG1105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 17:01	WG1105852
Methylene Chloride	U		1.07	2.50	1	05/02/2018 17:01	WG1105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 17:01	WG1105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 17:01	WG1105852
Naphthalene	U		0.174	2.50	1	05/02/2018 17:01	WG1105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 17:01	WG1105852
Styrene	U		0.117	0.500	1	05/02/2018 17:01	WG1105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 17:01	WG1105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 17:01	WG1105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 17:01	WG1105852
Tetrachloroethene	U		0.199	0.500	1	05/02/2018 17:01	WG1105852
Toluene	U		0.412	0.500	1	05/02/2018 17:01	WG1105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 17:01	WG1105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 17:01	WG1105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 17:01	WG1105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 17:01	WG1105852
Trichloroethene	U		0.153	0.500	1	05/02/2018 17:01	WG1105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 17:01	WG1105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 17:01	WG1105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 17:01	WG1105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 17:01	WG1105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 17:01	WG1105852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18



Collected date/time: 05/01/18 14:42

L990247

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	05/02/2018 17:01	WG1105852
Vinyl chloride	U		0.118	0.500	1	05/07/2018 20:45	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 17:01	WG1105852
(S) Toluene-d8	102			80.0-120		05/07/2018 20:45	WG1105852
(S) Toluene-d8	104			80.0-120		05/02/2018 17:01	WG1105852
(S) Dibromofluoromethane	91.5			76.0-123		05/07/2018 20:45	WG1105852
(S) Dibromofluoromethane	97.7			76.0-123		05/02/2018 17:01	WG1105852
(S) 4-Bromofluorobenzene	82.9			80.0-120		05/02/2018 17:01	WG1105852
(S) 4-Bromofluorobenzene	96.7			80.0-120		05/07/2018 20:45	WG1105852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18



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	05/02/2018 17:53	WG1106035
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/02/2018 17:53	WG1106035

- 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	05/02/2018 13:44	WG1105852
Acrylonitrile	U		0.873	5.00	1	05/02/2018 13:44	WG1105852
Benzene	U		0.0896	0.500	1	05/02/2018 13:44	WG1105852
Bromobenzene	U		0.133	0.500	1	05/02/2018 13:44	WG1105852
Bromodichloromethane	U		0.0800	0.500	1	05/02/2018 13:44	WG1105852
Bromochloromethane	U		0.145	0.500	1	05/02/2018 13:44	WG1105852
Bromoform	U		0.186	0.500	1	05/02/2018 13:44	WG1105852
Bromomethane	U		0.157	2.50	1	05/02/2018 13:44	WG1105852
n-Butylbenzene	U		0.143	0.500	1	05/02/2018 13:44	WG1105852
sec-Butylbenzene	U		0.134	0.500	1	05/02/2018 13:44	WG1105852
tert-Butylbenzene	U		0.183	0.500	1	05/02/2018 13:44	WG1105852
Carbon disulfide	U		0.101	0.500	1	05/02/2018 13:44	WG1105852
Carbon tetrachloride	U		0.159	0.500	1	05/02/2018 13:44	WG1105852
Chlorobenzene	U		0.140	0.500	1	05/02/2018 13:44	WG1105852
Chlorodibromomethane	U		0.128	0.500	1	05/02/2018 13:44	WG1105852
Chloroethane	U		0.141	2.50	1	05/02/2018 13:44	WG1105852
Chloroform	U		0.0860	0.500	1	05/02/2018 13:44	WG1105852
Chloromethane	U		0.153	1.25	1	05/02/2018 13:44	WG1105852
2-Chlorotoluene	U		0.111	0.500	1	05/02/2018 13:44	WG1105852
4-Chlorotoluene	U		0.0972	0.500	1	05/02/2018 13:44	WG1105852
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/02/2018 13:44	WG1105852
1,2-Dibromoethane	U		0.193	0.500	1	05/02/2018 13:44	WG1105852
Dibromomethane	U		0.117	0.500	1	05/02/2018 13:44	WG1105852
1,2-Dichlorobenzene	U		0.101	0.500	1	05/02/2018 13:44	WG1105852
1,3-Dichlorobenzene	U		0.130	0.500	1	05/02/2018 13:44	WG1105852
1,4-Dichlorobenzene	U		0.121	0.500	1	05/02/2018 13:44	WG1105852
Dichlorodifluoromethane	U		0.127	2.50	1	05/02/2018 13:44	WG1105852
1,1-Dichloroethane	U		0.114	0.500	1	05/02/2018 13:44	WG1105852
1,2-Dichloroethane	U		0.108	0.500	1	05/02/2018 13:44	WG1105852
1,1-Dichloroethene	U		0.188	0.500	1	05/02/2018 13:44	WG1105852
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/02/2018 13:44	WG1105852
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/02/2018 13:44	WG1105852
1,2-Dichloropropane	U		0.190	0.500	1	05/02/2018 13:44	WG1105852
1,1-Dichloropropene	U		0.128	0.500	1	05/02/2018 13:44	WG1105852
1,3-Dichloropropane	U		0.147	1.00	1	05/02/2018 13:44	WG1105852
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/02/2018 13:44	WG1105852
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/02/2018 13:44	WG1105852
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/02/2018 13:44	WG1105852
2,2-Dichloropropane	U		0.0929	0.500	1	05/02/2018 13:44	WG1105852
Di-isopropyl ether	U		0.0924	0.500	1	05/02/2018 13:44	WG1105852
Ethylbenzene	U		0.158	0.500	1	05/02/2018 13:44	WG1105852
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/02/2018 13:44	WG1105852
2-Hexanone	U		0.757	5.00	1	05/02/2018 13:44	WG1105852
n-Hexane	U		0.305	5.00	1	05/02/2018 13:44	WG1105852
Iodomethane	U		0.377	10.0	1	05/02/2018 13:44	WG1105852
Isopropylbenzene	U		0.126	0.500	1	05/02/2018 13:44	WG1105852
p-Isopropyltoluene	U		0.138	0.500	1	05/02/2018 13:44	WG1105852
2-Butanone (MEK)	U		1.28	5.00	1	05/02/2018 13:44	WG1105852

JC 6/11/18



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	05/02/2018 13:44	WG1105852
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/02/2018 13:44	WG1105852
Methyl tert-butyl ether	U		0.102	0.500	1	05/02/2018 13:44	WG1105852
Naphthalene	U		0.174	2.50	1	05/02/2018 13:44	WG1105852
n-Propylbenzene	U		0.162	0.500	1	05/02/2018 13:44	WG1105852
Styrene	U		0.117	0.500	1	05/02/2018 13:44	WG1105852
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/02/2018 13:44	WG1105852
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/02/2018 13:44	WG1105852
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/02/2018 13:44	WG1105852
Tetrachloroethene	U		0.199	0.500	1	05/02/2018 13:44	WG1105852
Toluene	U		0.412	0.500	1	05/02/2018 13:44	WG1105852
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/02/2018 13:44	WG1105852
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/02/2018 13:44	WG1105852
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/02/2018 13:44	WG1105852
1,1,2-Trichloroethane	U		0.186	0.500	1	05/02/2018 13:44	WG1105852
Trichloroethene	U		0.153	0.500	1	05/02/2018 13:44	WG1105852
Trichlorofluoromethane	U		0.130	2.50	1	05/02/2018 13:44	WG1105852
1,2,3-Trichloropropane	U		0.247	2.50	1	05/02/2018 13:44	WG1105852
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/02/2018 13:44	WG1105852
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/02/2018 13:44	WG1105852
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/02/2018 13:44	WG1105852
Vinyl acetate	U		0.645	5.00	1	05/02/2018 13:44	WG1105852
Vinyl chloride	U		0.118	0.500	1	05/02/2018 13:44	WG1105852
Xylenes, Total	U		0.316	1.50	1	05/02/2018 13:44	WG1105852
(S) Toluene-d8	105			80.0-120		05/02/2018 13:44	WG1105852
(S) Dibromofluoromethane	95.2			76.0-123		05/02/2018 13:44	WG1105852
(S) 4-Bromofluorobenzene	82.0			80.0-120		05/02/2018 13:44	WG1105852

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

JC 6/11/18

May 14, 2018

PES Environmental, Inc.- WA

Sample Delivery Group: L991410
Samples Received: 05/05/2018
Project Number: 1413.001.05.304
Description: American Linen
Site: 1413.001.05.304
Report To: Brian O'Neal/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



MW-106-050418 L991410-01 GW

Collected by: Karsten Springstead
 Collected date/time: 05/04/18 09:00
 Received date/time: 05/05/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1108282	1	05/10/18 14:40	05/10/18 14:40	MCG
Wet Chemistry by Method 9056A	WG1107365	1	05/05/18 20:33	05/05/18 20:33	DR
Wet Chemistry by Method 9060A	WG1109945	1	05/11/18 17:13	05/11/18 17:13	SJM
Metals (ICPMS) by Method 6020A	WG1108904	1	05/09/18 17:34	05/09/18 21:44	LD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1108185	1	05/08/18 12:45	05/08/18 12:45	DWR
Volatile Organic Compounds (GC) by Method RSK175	WG1109891	1	05/11/18 11:07	05/11/18 11:07	BG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1107843	1	05/07/18 10:27	05/07/18 10:27	ACG

- 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, unless qualified or notated within the report. Where applicable, 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



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Alkalinity	283000		2710	20000	1	05/10/2018 14:40	WG1108282

Sample Narrative:

L991410-01 WG1108282: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	25000		51.9	1000	1	05/05/2018 20:33	WG1107365
Nitrate	U	P1	22.7	100	1	05/05/2018 20:33	WG1107365
Sulfate	10400		77.4	5000	1	05/05/2018 20:33	WG1107365

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)	1740	B	102	1000	1	05/11/2018 17:13	WG1109945

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	164		15.0	100	1	05/09/2018 21:44	WG1108904
Manganese	496		0.250	5.00	1	05/09/2018 21:44	WG1108904

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	05/08/2018 12:45	WG1108185
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-122		05/08/2018 12:45	WG1108185

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	77.8		0.287	0.678	1	05/11/2018 11:07	WG1109891
Ethane	U		0.296	1.29	1	05/11/2018 11:07	WG1109891
Ethene	10.8		0.422	1.27	1	05/11/2018 11:07	WG1109891

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	6.52	J	1.05	25.0	1	05/07/2018 10:27	WG1107843
Acrylonitrile	U		0.873	5.00	1	05/07/2018 10:27	WG1107843
Benzene	U		0.0896	0.500	1	05/07/2018 10:27	WG1107843
Bromobenzene	U		0.133	0.500	1	05/07/2018 10:27	WG1107843
Bromodichloromethane	U		0.0800	0.500	1	05/07/2018 10:27	WG1107843
Bromochloromethane	U		0.145	0.500	1	05/07/2018 10:27	WG1107843
Bromoform	U		0.186	0.500	1	05/07/2018 10:27	WG1107843
Bromomethane	U		0.157	2.50	1	05/07/2018 10:27	WG1107843
n-Butylbenzene	U		0.143	0.500	1	05/07/2018 10:27	WG1107843
sec-Butylbenzene	U		0.134	0.500	1	05/07/2018 10:27	WG1107843
tert-Butylbenzene	U		0.183	0.500	1	05/07/2018 10:27	WG1107843
Carbon disulfide	0.173	J	0.101	0.500	1	05/07/2018 10:27	WG1107843
Carbon tetrachloride	U		0.159	0.500	1	05/07/2018 10:27	WG1107843

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
Chlorobenzene	U		0.140	0.500	1	05/07/2018 10:27	WG1107843
Chlorodibromomethane	U		0.128	0.500	1	05/07/2018 10:27	WG1107843
Chloroethane	U		0.141	2.50	1	05/07/2018 10:27	WG1107843
Chloroform	U		0.0860	0.500	1	05/07/2018 10:27	WG1107843
Chloromethane	U		0.153	1.25	1	05/07/2018 10:27	WG1107843
2-Chlorotoluene	U		0.111	0.500	1	05/07/2018 10:27	WG1107843
4-Chlorotoluene	U		0.0972	0.500	1	05/07/2018 10:27	WG1107843
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/07/2018 10:27	WG1107843
1,2-Dibromoethane	U		0.193	0.500	1	05/07/2018 10:27	WG1107843
Dibromomethane	U		0.117	0.500	1	05/07/2018 10:27	WG1107843
1,2-Dichlorobenzene	U		0.101	0.500	1	05/07/2018 10:27	WG1107843
1,3-Dichlorobenzene	U		0.130	0.500	1	05/07/2018 10:27	WG1107843
1,4-Dichlorobenzene	U		0.121	0.500	1	05/07/2018 10:27	WG1107843
Dichlorodifluoromethane	U		0.127	2.50	1	05/07/2018 10:27	WG1107843
1,1-Dichloroethane	U		0.114	0.500	1	05/07/2018 10:27	WG1107843
1,2-Dichloroethane	U		0.108	0.500	1	05/07/2018 10:27	WG1107843
1,1-Dichloroethene	U		0.188	0.500	1	05/07/2018 10:27	WG1107843
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/07/2018 10:27	WG1107843
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/07/2018 10:27	WG1107843
1,2-Dichloropropane	U		0.190	0.500	1	05/07/2018 10:27	WG1107843
1,1-Dichloropropene	U		0.128	0.500	1	05/07/2018 10:27	WG1107843
1,3-Dichloropropane	U		0.147	1.00	1	05/07/2018 10:27	WG1107843
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/07/2018 10:27	WG1107843
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/07/2018 10:27	WG1107843
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/07/2018 10:27	WG1107843
2,2-Dichloropropane	U		0.0929	0.500	1	05/07/2018 10:27	WG1107843
Di-isopropyl ether	U		0.0924	0.500	1	05/07/2018 10:27	WG1107843
Ethylbenzene	U		0.158	0.500	1	05/07/2018 10:27	WG1107843
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/07/2018 10:27	WG1107843
2-Hexanone	U		0.757	5.00	1	05/07/2018 10:27	WG1107843
n-Hexane	U		0.305	5.00	1	05/07/2018 10:27	WG1107843
Iodomethane	U		0.377	10.0	1	05/07/2018 10:27	WG1107843
Isopropylbenzene	U		0.126	0.500	1	05/07/2018 10:27	WG1107843
p-Isopropyltoluene	U		0.138	0.500	1	05/07/2018 10:27	WG1107843
2-Butanone (MEK)	U		1.28	5.00	1	05/07/2018 10:27	WG1107843
Methylene Chloride	U		1.07	2.50	1	05/07/2018 10:27	WG1107843
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/07/2018 10:27	WG1107843
Methyl tert-butyl ether	U		0.102	0.500	1	05/07/2018 10:27	WG1107843
Naphthalene	U		0.174	2.50	1	05/07/2018 10:27	WG1107843
n-Propylbenzene	U		0.162	0.500	1	05/07/2018 10:27	WG1107843
Styrene	0.273	U	0.117	0.500	1	05/07/2018 10:27	WG1107843
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/07/2018 10:27	WG1107843
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/07/2018 10:27	WG1107843
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/07/2018 10:27	WG1107843
Tetrachloroethene	U		0.199	0.500	1	05/07/2018 10:27	WG1107843
Toluene	U		0.412	0.500	1	05/07/2018 10:27	WG1107843
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/07/2018 10:27	WG1107843
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/07/2018 10:27	WG1107843
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/07/2018 10:27	WG1107843
1,1,2-Trichloroethane	U		0.186	0.500	1	05/07/2018 10:27	WG1107843
Trichloroethene	U		0.153	0.500	1	05/07/2018 10:27	WG1107843
Trichlorofluoromethane	U		0.130	2.50	1	05/07/2018 10:27	WG1107843
1,2,3-Trichloropropane	U		0.247	2.50	1	05/07/2018 10:27	WG1107843
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/07/2018 10:27	WG1107843
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/07/2018 10:27	WG1107843
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/07/2018 10:27	WG1107843

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
Vinyl acetate	U		0.645	5.00	1	05/07/2018 10:27	WG1107843
Vinyl chloride	U		0.118	0.500	1	05/07/2018 10:27	WG1107843
Xylenes, Total	U		0.316	1.50	1	05/07/2018 10:27	WG1107843
<i>(S) Toluene-d8</i>	103			80.0-120		05/07/2018 10:27	WG1107843
<i>(S) Dibromofluoromethane</i>	99.5			76.0-123		05/07/2018 10:27	WG1107843
<i>(S) 4-Bromofluorobenzene</i>	101			80.0-120		05/07/2018 10:27	WG1107843

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L991386-01 Original Sample (OS) • Duplicate (DUP)

(OS) L991386-01 05/10/18 13:13 • (DUP) R3308844-1 05/10/18 13:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l	%			
Alkalinity	307000	310000	1	1.09		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L991810-04 Original Sample (OS) • Duplicate (DUP)

(OS) L991810-04 05/10/18 15:35 • (DUP) R3308844-4 05/10/18 15:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l	%			
Alkalinity	239000	248000	1	3.52		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

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

(LCS) R3308844-2 05/10/18 13:55 • (LCSD) R3308844-3 05/10/18 15:26

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	108000	110000	108	110	85.0-115			2.19	20

Sample Narrative:

LCS: Endpoint pH 4.5

LCSD: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3307356-1 05/05/18 09:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
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

L991386-15 Original Sample (OS) • Duplicate (DUP)

(OS) L991386-15 05/05/18 17:43 • (DUP) R3307356-4 05/05/18 17:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	6520	6510	1	0.166		15
Nitrate	ND	0.000	1	0.000		15
Sulfate	27200	27200	1	0.322		15

L991410-01 Original Sample (OS) • Duplicate (DUP)

(OS) L991410-01 05/05/18 20:33 • (DUP) R3307356-7 05/05/18 20:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	25000	25000	1	0.154		15
Nitrate	U	52.8	1	200	J P1	15
Sulfate	10400	10300	1	0.655		15

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

(LCS) R3307356-2 05/05/18 09:30 • (LCSD) R3307356-3 05/05/18 09:45

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	%	%	%			%	%
Chloride	40000	39600	39400	99.1	98.6	80.0-120			0.456	15
Nitrate	8000	7960	7960	99.6	99.5	80.0-120			0.0854	15
Sulfate	40000	38700	38400	96.7	96.1	80.0-120			0.700	15



[L991410-01](#)

L991386-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L991386-15 05/05/18 17:43 • (MS) R3307356-5 05/05/18 18:14 • (MSD) R3307356-6 05/05/18 18:29

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	6520	56800	56600	101	100	1	80.0-120			0.278	15
Nitrate	5000	ND	4780	4830	95.5	96.7	1	80.0-120			1.20	15
Sulfate	50000	27200	73100	72900	91.7	91.2	1	80.0-120			0.353	15

L991410-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L991410-01 05/05/18 20:33 • (MS) R3307356-8 05/05/18 21:03

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	25000	74500	98.9	1	80.0-120	
Nitrate	5000	U	4920	98.5	1	80.0-120	
Sulfate	50000	10400	57400	94.0	1	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) R3309311-1 05/11/18 10:37

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	354	↓	102	1000

1 Cp

2 Tc

3 Ss

L991386-01 Original Sample (OS) • Duplicate (DUP)

(OS) L991386-01 05/11/18 13:48 • (DUP) R3309311-3 05/11/18 14:06

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC	ND	771	1	0.000		20

4 Cn

5 Sr

6 Qc

L991760-01 Original Sample (OS) • Duplicate (DUP)

(OS) L991760-01 05/11/18 20:48 • (DUP) R3309311-7 05/11/18 21:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC	4580	5180	1	12.3		20

7 Gl

8 Al

9 Sc

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

(LCS) R3309311-2 05/11/18 12:51 • (LCSD) R3309311-4 05/11/18 15:45

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 %
TOC	75000	68700	68500	91.5	91.3	85.0-115			0.277	20



Method Blank (MB)

(MB) R3308439-1 05/09/18 21:12

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

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R3308439-2 05/09/18 21:17 • (LCSD) R3308439-3 05/09/18 21:21

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	4690	4630	93.8	92.6	80.0-120			1.26	20
Manganese	50.0	45.7	43.2	91.5	86.5	80.0-120			5.63	20

L992074-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L992074-02 05/09/18 21:26 • (MS) R3308439-5 05/09/18 21:35 • (MSD) R3308439-6 05/09/18 21:40

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	260	4800	4980	90.8	94.3	1	75.0-125			3.59	20
Manganese	50.0	5840	5750	5890	0.000	89.9	1	75.0-125	V		2.38	20



Method Blank (MB)

(MB) R3308260-5 05/08/18 11:30

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)	101			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) R3308260-3 05/08/18 10:27 • (LCSD) R3308260-4 05/08/18 10:48

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	4820	4820	87.7	87.6	72.0-134			0.173	20
(S) a,a,a-Trifluorotoluene(FID)				88.9	89.6	77.0-122				

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3308260-8 05/08/18 20:07 • (MSD) R3308260-9 05/08/18 20:28

Analyte	Spike Amount ug/l	Original Result	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		5200	5260	94.5	95.7	1	23.0-159			1.32	20
(S) a,a,a-Trifluorotoluene(FID)					91.7	91.8		77.0-122				



Method Blank (MB)

(MB) R3308988-1 05/11/18 10:25

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

L990267-08 Original Sample (OS) • Duplicate (DUP)

(OS) L990267-08 05/11/18 10:33 • (DUP) R3308988-2 05/11/18 10:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	ND	9.00	1	2.31		20
Ethane	ND	0.000	1	0.000		20
Ethene	ND	0.000	1	0.000		20

L991810-01 Original Sample (OS) • Duplicate (DUP)

(OS) L991810-01 05/11/18 11:13 • (DUP) R3308988-3 05/11/18 11:34

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) R3308988-4 05/11/18 11:36 • (LCSD) R3308988-5 05/11/18 11:39

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	74.0	75.0	109	111	85.0-115			1.41	20
Ethane	129	115	113	88.8	87.9	85.0-115			0.955	20
Ethene	127	117	115	92.2	90.6	85.0-115			1.73	20



Method Blank (MB)

(MB) R3307828-2 05/07/18 09:49

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
Bromochloromethane	U		0.145	0.500
Bromodichloromethane	U		0.0800	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
Carbon disulfide	U		0.101	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	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-1,4-Dichloro-2-butene	U		0.257	5.00
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
n-Hexane	U		0.305	5.00
trans-1,3-Dichloropropene	U		0.222	0.500
2,2-Dichloropropane	U		0.0929	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3307828-2 05/07/18 09:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Iodomethane	U		0.377	10.0
Di-isopropyl ether	U		0.0924	0.500
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
Vinyl acetate	U		0.645	5.00
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
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	101			80.0-120
(S) Dibromofluoromethane	99.2			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)

(LCS) R3307828-1 05/07/18 09:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromochloromethane	25.0	22.5	89.8	76.0-122	
Carbon disulfide	25.0	24.0	96.1	55.0-127	
trans-1,4-Dichloro-2-butene	25.0	25.8	103	55.0-134	
n-Hexane	25.0	26.8	107	56.0-124	
Iodomethane	125	115	91.6	57.0-140	
Acetone	125	126	101	10.0-160	
Acrylonitrile	125	99.0	79.2	60.0-142	
Benzene	25.0	23.8	95.2	69.0-123	
Bromobenzene	25.0	22.7	91.0	79.0-120	
Bromodichloromethane	25.0	23.5	94.1	76.0-120	
Bromoform	25.0	23.3	93.0	67.0-132	
Bromomethane	25.0	25.6	102	18.0-160	
n-Butylbenzene	25.0	24.1	96.3	72.0-126	
sec-Butylbenzene	25.0	24.5	98.0	74.0-121	
tert-Butylbenzene	25.0	23.8	95.2	75.0-122	
Carbon tetrachloride	25.0	21.1	84.6	63.0-122	
Chlorobenzene	25.0	23.5	94.2	79.0-121	
Chlorodibromomethane	25.0	23.3	93.2	75.0-125	
Chloroethane	25.0	26.4	105	47.0-152	
Chloroform	25.0	23.4	93.4	72.0-121	
Chloromethane	25.0	30.3	121	48.0-139	
2-Chlorotoluene	25.0	23.5	94.0	74.0-122	
Vinyl acetate	125	136	109	46.0-160	
4-Chlorotoluene	25.0	23.5	94.2	79.0-120	
1,2-Dibromo-3-Chloropropane	25.0	23.0	91.8	64.0-127	
1,2-Dibromoethane	25.0	23.4	93.5	77.0-123	
Dibromomethane	25.0	23.8	95.3	78.0-120	
1,2-Dichlorobenzene	25.0	22.9	91.4	80.0-120	
1,3-Dichlorobenzene	25.0	23.2	92.7	72.0-123	
1,4-Dichlorobenzene	25.0	22.6	90.5	77.0-120	
Dichlorodifluoromethane	25.0	27.0	108	49.0-155	
1,1-Dichloroethane	25.0	24.3	97.2	70.0-126	
1,2-Dichloroethane	25.0	24.5	98.0	67.0-126	
1,1-Dichloroethene	25.0	23.1	92.4	64.0-129	
cis-1,2-Dichloroethene	25.0	22.3	89.0	73.0-120	
trans-1,2-Dichloroethene	25.0	22.9	91.5	71.0-121	
1,2-Dichloropropane	25.0	24.9	99.6	75.0-125	
1,1-Dichloropropene	25.0	24.6	98.4	71.0-129	
1,3-Dichloropropane	25.0	24.2	96.8	80.0-121	
cis-1,3-Dichloropropene	25.0	24.6	98.2	79.0-123	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS)

(LCS) R3307828-1 05/07/18 09:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
trans-1,3-Dichloropropene	25.0	24.1	96.4	74.0-127	
2,2-Dichloropropane	25.0	23.8	95.1	60.0-125	
Di-isopropyl ether	25.0	27.2	109	59.0-133	
Ethylbenzene	25.0	23.5	93.9	77.0-120	
Hexachloro-1,3-butadiene	25.0	24.9	99.5	64.0-131	
2-Hexanone	125	135	108	58.0-147	
Isopropylbenzene	25.0	23.6	94.4	75.0-120	
p-Isopropyltoluene	25.0	24.0	96.0	74.0-126	
2-Butanone (MEK)	125	136	109	37.0-158	
Methylene Chloride	25.0	23.3	93.1	66.0-121	
4-Methyl-2-pentanone (MIBK)	125	139	111	59.0-143	
Methyl tert-butyl ether	25.0	22.3	89.2	64.0-123	
Naphthalene	25.0	23.8	95.3	62.0-128	
n-Propylbenzene	25.0	23.7	94.6	79.0-120	
Styrene	25.0	22.9	91.7	78.0-124	
1,1,1,2-Tetrachloroethane	25.0	23.5	94.1	75.0-122	
1,1,2,2-Tetrachloroethane	25.0	22.8	91.2	71.0-122	
Tetrachloroethene	25.0	22.8	91.4	70.0-127	
Toluene	25.0	23.0	92.2	77.0-120	
1,1,2-Trichlorotrifluoroethane	25.0	22.4	89.7	61.0-136	
1,2,3-Trichlorobenzene	25.0	24.5	98.1	61.0-133	
1,2,4-Trichlorobenzene	25.0	24.9	99.4	69.0-129	
1,1,1-Trichloroethane	25.0	23.3	93.1	68.0-122	
1,1,2-Trichloroethane	25.0	22.6	90.5	78.0-120	
Trichloroethene	25.0	23.7	94.7	78.0-120	
Trichlorofluoromethane	25.0	25.3	101	56.0-137	
1,2,3-Trichloropropane	25.0	23.3	93.2	72.0-124	
1,2,3-Trimethylbenzene	25.0	23.6	94.5	75.0-120	
1,2,4-Trimethylbenzene	25.0	23.6	94.5	75.0-120	
1,3,5-Trimethylbenzene	25.0	23.7	95.0	75.0-120	
Vinyl chloride	25.0	28.6	114	64.0-133	
Xylenes, Total	75.0	70.5	94.0	77.0-120	
(S) Toluene-d8			102	80.0-120	
(S) Dibromofluoromethane			97.7	76.0-123	
(S) 4-Bromofluorobenzene			99.1	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 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.
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.



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.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

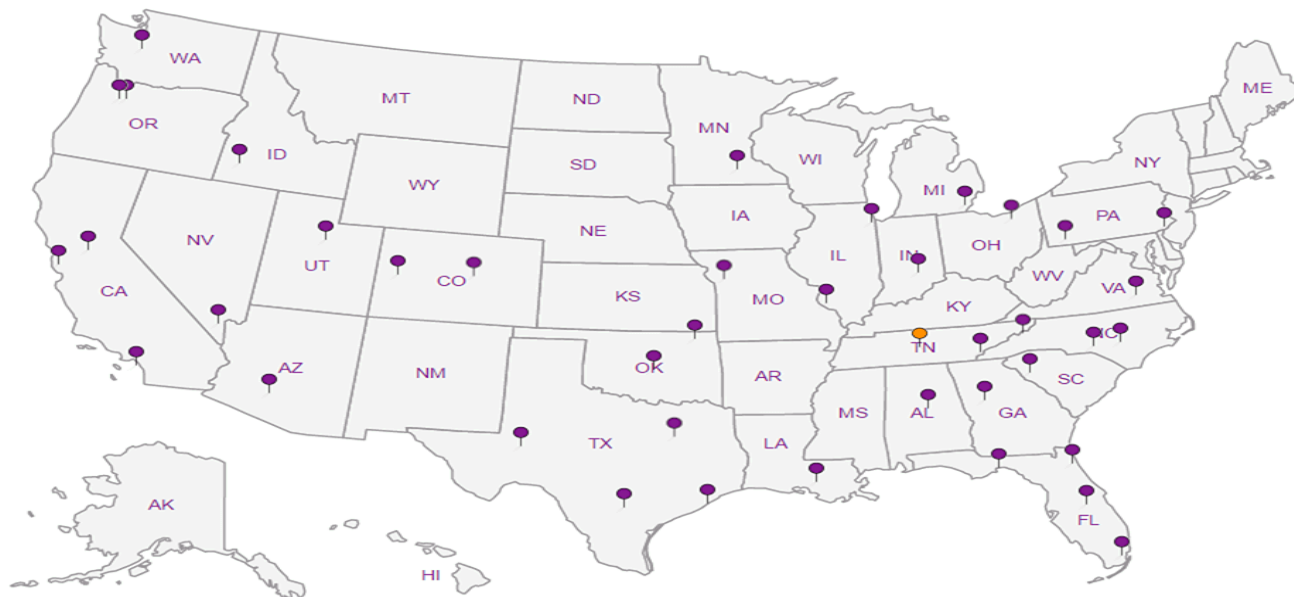
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater 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:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

Project Description: **AMERICAN LINEN**

City/State
Collected:

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

Client Project #
1413.001.05.304

Lab Project #
PESENVSWA-ALP

Collected by (print):
Karsten Springstead

Site/Facility ID #
1413.001.05.304

P.O. #
1413.001.05.304

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	Analysis / Container / Preservative
MW-106-050418	Grab	SS/GW	135	5-4-18	900	9	V8260C VOCs 40ml/ diox wt. vocs 40ml GR0 by NUTRA-GX ALKALINITY CHLORIDE METHANE, ETHANE, BETHENE NITRATE, SULFATE TOTAL METALS (FERRIC IRON + MANGANESE) LZ TOTAL ORGANIC CARBON LZ
		SS					
		SS					
		SS					
		SS					
		SS					
		SS					
		SS					
		SS					

Chain of Custody Page 1 of 1



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



L991410
H144

Acctnum: PESENVSWA
Template: T134663
Prelogin: P647546
TSR: 110 - Brian Ford
PB: 4-4-18 *cm*

Shipped Via: **FedEX Ground**

* 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 # **921A 9220 0517**

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: 5-4-18	Time: 1000	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> HCL/ MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.6°C Bottles Received: 9
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Kathryn Carson</i>	Date: 5/5/18 Time: 0845 Hold: Condition: NCF / OK

Andy Vann

ESC Lab Sciences Non-Conformance Form

Login #: L991410	Client: PESENVSWA	Date: 05/05/18	Evaluated by: Myra "Katie" Ingram
------------------	-------------------	----------------	-----------------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	X Login Clarification Needed	Insufficient packing material around container
Improper temperature	Chain of custody is incomplete	Insufficient packing material inside cooler
Improper container type	Please specify Metals requested.	
Improper preservation	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Couri
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:

Did not receive a container for analysis FERRIC IRON

Client informed by:	Call	Email	x	Voice Mail	Date: 05/07/18	Time: 1030
TSR Initials: bjf	Client Contact: Bill Haldeman					

Login Instructions:

Analyze for total iron rather than ferric iron.

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.



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	283000		2710	20000	1	05/10/2018 14:40	WG1108282

Sample Narrative:

L991410-01 WG1108282: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	25000		51.9	1000	1	05/05/2018 20:33	WG1107365
Nitrate	U	P1	22.7	100	1	05/05/2018 20:33	WG1107365
Sulfate	10400		77.4	5000	1	05/05/2018 20:33	WG1107365

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1740	B	102	1000	1	05/11/2018 17:13	WG1109945

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	164		15.0	100	1	05/09/2018 21:44	WG1108904
Manganese	496		0.250	5.00	1	05/09/2018 21:44	WG1108904

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	05/08/2018 12:45	WG1108185
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-122		05/08/2018 12:45	WG1108185

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	77.8		0.287	0.678	1	05/11/2018 11:07	WG1109891
Ethane	U		0.296	1.29	1	05/11/2018 11:07	WG1109891
Ethene	10.8		0.422	1.27	1	05/11/2018 11:07	WG1109891

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	6.52	J	1.05	25.0	1	05/07/2018 10:27	WG1107843
Acrylonitrile	U		0.873	5.00	1	05/07/2018 10:27	WG1107843
Benzene	U		0.0896	0.500	1	05/07/2018 10:27	WG1107843
Bromobenzene	U		0.133	0.500	1	05/07/2018 10:27	WG1107843
Bromodichloromethane	U		0.0800	0.500	1	05/07/2018 10:27	WG1107843
Bromochloromethane	U		0.145	0.500	1	05/07/2018 10:27	WG1107843
Bromoform	U		0.186	0.500	1	05/07/2018 10:27	WG1107843
Bromomethane	U		0.157	2.50	1	05/07/2018 10:27	WG1107843
n-Butylbenzene	U		0.143	0.500	1	05/07/2018 10:27	WG1107843
sec-Butylbenzene	U		0.134	0.500	1	05/07/2018 10:27	WG1107843
tert-Butylbenzene	U		0.183	0.500	1	05/07/2018 10:27	WG1107843
Carbon disulfide	0.173	J	0.101	0.500	1	05/07/2018 10:27	WG1107843
Carbon tetrachloride	U		0.159	0.500	1	05/07/2018 10:27	WG1107843

JC 6/11/18

- 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
Chlorobenzene	U		0.140	0.500	1	05/07/2018 10:27	WG1107843
Chlorodibromomethane	U		0.128	0.500	1	05/07/2018 10:27	WG1107843
Chloroethane	U		0.141	2.50	1	05/07/2018 10:27	WG1107843
Chloroform	U		0.0860	0.500	1	05/07/2018 10:27	WG1107843
Chloromethane	U		0.153	1.25	1	05/07/2018 10:27	WG1107843
2-Chlorotoluene	U		0.111	0.500	1	05/07/2018 10:27	WG1107843
4-Chlorotoluene	U		0.0972	0.500	1	05/07/2018 10:27	WG1107843
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/07/2018 10:27	WG1107843
1,2-Dibromoethane	U		0.193	0.500	1	05/07/2018 10:27	WG1107843
Dibromomethane	U		0.117	0.500	1	05/07/2018 10:27	WG1107843
1,2-Dichlorobenzene	U		0.101	0.500	1	05/07/2018 10:27	WG1107843
1,3-Dichlorobenzene	U		0.130	0.500	1	05/07/2018 10:27	WG1107843
1,4-Dichlorobenzene	U		0.121	0.500	1	05/07/2018 10:27	WG1107843
Dichlorodifluoromethane	U		0.127	2.50	1	05/07/2018 10:27	WG1107843
1,1-Dichloroethane	U		0.114	0.500	1	05/07/2018 10:27	WG1107843
1,2-Dichloroethane	U		0.108	0.500	1	05/07/2018 10:27	WG1107843
1,1-Dichloroethene	U		0.188	0.500	1	05/07/2018 10:27	WG1107843
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/07/2018 10:27	WG1107843
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/07/2018 10:27	WG1107843
1,2-Dichloropropane	U		0.190	0.500	1	05/07/2018 10:27	WG1107843
1,1-Dichloropropene	U		0.128	0.500	1	05/07/2018 10:27	WG1107843
1,3-Dichloropropane	U		0.147	1.00	1	05/07/2018 10:27	WG1107843
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/07/2018 10:27	WG1107843
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/07/2018 10:27	WG1107843
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/07/2018 10:27	WG1107843
2,2-Dichloropropane	U		0.0929	0.500	1	05/07/2018 10:27	WG1107843
Di-isopropyl ether	U		0.0924	0.500	1	05/07/2018 10:27	WG1107843
Ethylbenzene	U		0.158	0.500	1	05/07/2018 10:27	WG1107843
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/07/2018 10:27	WG1107843
2-Hexanone	U		0.757	5.00	1	05/07/2018 10:27	WG1107843
n-Hexane	U		0.305	5.00	1	05/07/2018 10:27	WG1107843
Iodomethane	U		0.377	10.0	1	05/07/2018 10:27	WG1107843
Isopropylbenzene	U		0.126	0.500	1	05/07/2018 10:27	WG1107843
p-Isopropyltoluene	U		0.138	0.500	1	05/07/2018 10:27	WG1107843
2-Butanone (MEK)	U		1.28	5.00	1	05/07/2018 10:27	WG1107843
Methylene Chloride	U		1.07	2.50	1	05/07/2018 10:27	WG1107843
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/07/2018 10:27	WG1107843
Methyl tert-butyl ether	U		0.102	0.500	1	05/07/2018 10:27	WG1107843
Naphthalene	U		0.174	2.50	1	05/07/2018 10:27	WG1107843
n-Propylbenzene	U		0.162	0.500	1	05/07/2018 10:27	WG1107843
Styrene	0.273	J U	0.117	0.500	1	05/07/2018 10:27	WG1107843
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/07/2018 10:27	WG1107843
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/07/2018 10:27	WG1107843
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	05/07/2018 10:27	WG1107843
Tetrachloroethene	U		0.199	0.500	1	05/07/2018 10:27	WG1107843
Toluene	U		0.412	0.500	1	05/07/2018 10:27	WG1107843
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/07/2018 10:27	WG1107843
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/07/2018 10:27	WG1107843
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/07/2018 10:27	WG1107843
1,1,2-Trichloroethane	U		0.186	0.500	1	05/07/2018 10:27	WG1107843
Trichloroethene	U		0.153	0.500	1	05/07/2018 10:27	WG1107843
Trichlorofluoromethane	U		0.130	2.50	1	05/07/2018 10:27	WG1107843
1,2,3-Trichloropropane	U		0.247	2.50	1	05/07/2018 10:27	WG1107843
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/07/2018 10:27	WG1107843
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/07/2018 10:27	WG1107843
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/07/2018 10:27	WG1107843

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Vinyl acetate	U		0.645	5.00	1	05/07/2018 10:27	WG1107843
Vinyl chloride	U		0.118	0.500	1	05/07/2018 10:27	WG1107843
Xylenes, Total	U		0.316	1.50	1	05/07/2018 10:27	WG1107843
<i>(S) Toluene-d8</i>	103			80.0-120		05/07/2018 10:27	WG1107843
<i>(S) Dibromofluoromethane</i>	99.5			76.0-123		05/07/2018 10:27	WG1107843
<i>(S) 4-Bromofluorobenzene</i>	101			80.0-120		05/07/2018 10:27	WG1107843

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/11/18

May 31, 2018

PES Environmental, Inc.- WA

Sample Delivery Group: L995641
Samples Received: 05/22/2018
Project Number: 1413.001.05.601
Description: American Linen

Report To: Brian O'Neal/Bill Haldeman
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Entire Report Reviewed By:

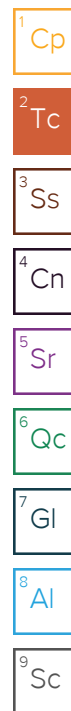


Brian Ford
Technical Service Representative

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-160-052118 L995641-01 GW

Collected by: Chris D.
 Collected date/time: 05/21/18 10:00
 Received date/time: 05/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1114542	1	05/22/18 20:13	05/22/18 20:13	BMB

1 Cp

2 Tc

MW-160-052118 L995641-02 GW

Collected by: Chris D.
 Collected date/time: 05/21/18 10:00
 Received date/time: 05/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1115235	1	05/29/18 11:53	05/29/18 11:53	GB
Wet Chemistry by Method 9056A	WG1114448	1	05/22/18 15:54	05/22/18 15:54	MAJ
Wet Chemistry by Method 9060A	WG1115490	1	05/24/18 22:21	05/24/18 22:21	EG
Metals (ICPMS) by Method 6020A	WG1113975	1	05/23/18 10:57	05/25/18 04:13	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1115294-9	1	05/29/18 20:41	05/29/18 20:41	BMB
Volatile Organic Compounds (GC) by Method RSK175	WG1114645	1	05/23/18 12:50	05/23/18 12:50	AMC

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

MW-161-052118 L995641-03 GW

Collected by: Chris D.
 Collected date/time: 05/21/18 11:40
 Received date/time: 05/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1114542	1	05/22/18 20:35	05/22/18 20:35	BMB

8 Al

9 Sc

MW-161-052118 L995641-04 GW

Collected by: Chris D.
 Collected date/time: 05/21/18 11:40
 Received date/time: 05/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1115235	1	05/29/18 12:09	05/29/18 12:09	GB
Wet Chemistry by Method 9056A	WG1114448	1	05/22/18 16:10	05/22/18 16:10	MAJ
Wet Chemistry by Method 9060A	WG1115490	1	05/24/18 22:39	05/24/18 22:39	EG
Metals (ICPMS) by Method 6020A	WG1113975	1	05/23/18 10:57	05/25/18 04:17	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1115294	1	05/25/18 18:27	05/25/18 18:27	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1114645	1	05/23/18 12:53	05/23/18 12:53	AMC

MW-130-052118 L995641-05 GW

Collected by: Chris D.
 Collected date/time: 05/21/18 13:25
 Received date/time: 05/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1114542	1	05/22/18 20:56	05/22/18 20:56	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1114542	500	05/23/18 12:24	05/23/18 12:24	RAS

MW-130-052118 L995641-06 GW

Collected by: Chris D.
 Collected date/time: 05/21/18 13:25
 Received date/time: 05/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1115235	1	05/29/18 15:54	05/29/18 15:54	GB
Wet Chemistry by Method 9056A	WG1114448	5	05/22/18 16:25	05/22/18 16:25	MAJ
Wet Chemistry by Method 9056A	WG1114448	50	05/22/18 16:41	05/22/18 16:41	MAJ
Wet Chemistry by Method 9056A	WG1115226	1	05/24/18 00:43	05/24/18 00:43	MAJ
Wet Chemistry by Method 9060A	WG1115490	1	05/24/18 22:56	05/24/18 22:56	EG
Metals (ICPMS) by Method 6020A	WG1116544	1	05/26/18 10:09	05/29/18 18:26	LD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1115294	10	05/25/18 18:51	05/25/18 18:51	ACG
Volatile Organic Compounds (GC) by Method RSK175	WG1114645	1	05/23/18 12:55	05/23/18 12:55	AMC



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.

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	2.05	J	1.05	25.0	1	05/22/2018 20:13	WG114542
Acrylonitrile	U		0.873	5.00	1	05/22/2018 20:13	WG114542
Benzene	U		0.0896	0.500	1	05/22/2018 20:13	WG114542
Bromobenzene	U		0.133	0.500	1	05/22/2018 20:13	WG114542
Bromodichloromethane	U		0.0800	0.500	1	05/22/2018 20:13	WG114542
Bromochloromethane	U		0.145	0.500	1	05/22/2018 20:13	WG114542
Bromoform	U		0.186	0.500	1	05/22/2018 20:13	WG114542
Bromomethane	U	JO	0.157	2.50	1	05/22/2018 20:13	WG114542
n-Butylbenzene	U		0.143	0.500	1	05/22/2018 20:13	WG114542
sec-Butylbenzene	U		0.134	0.500	1	05/22/2018 20:13	WG114542
tert-Butylbenzene	U		0.183	0.500	1	05/22/2018 20:13	WG114542
Carbon disulfide	U		0.101	0.500	1	05/22/2018 20:13	WG114542
Carbon tetrachloride	U		0.159	0.500	1	05/22/2018 20:13	WG114542
Chlorobenzene	U		0.140	0.500	1	05/22/2018 20:13	WG114542
Chlorodibromomethane	U		0.128	0.500	1	05/22/2018 20:13	WG114542
Chloroethane	U	JO	0.141	2.50	1	05/22/2018 20:13	WG114542
Chloroform	0.186	J	0.0860	0.500	1	05/22/2018 20:13	WG114542
Chloromethane	U		0.153	1.25	1	05/22/2018 20:13	WG114542
2-Chlorotoluene	U		0.111	0.500	1	05/22/2018 20:13	WG114542
4-Chlorotoluene	U		0.0972	0.500	1	05/22/2018 20:13	WG114542
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/22/2018 20:13	WG114542
1,2-Dibromoethane	U		0.193	0.500	1	05/22/2018 20:13	WG114542
Dibromomethane	U		0.117	0.500	1	05/22/2018 20:13	WG114542
1,2-Dichlorobenzene	U		0.101	0.500	1	05/22/2018 20:13	WG114542
1,3-Dichlorobenzene	U		0.130	0.500	1	05/22/2018 20:13	WG114542
1,4-Dichlorobenzene	U		0.121	0.500	1	05/22/2018 20:13	WG114542
Dichlorodifluoromethane	U		0.127	2.50	1	05/22/2018 20:13	WG114542
1,1-Dichloroethane	U		0.114	0.500	1	05/22/2018 20:13	WG114542
1,2-Dichloroethane	U		0.108	0.500	1	05/22/2018 20:13	WG114542
1,1-Dichloroethene	U		0.188	0.500	1	05/22/2018 20:13	WG114542
cis-1,2-Dichloroethene	2.96		0.0933	0.500	1	05/22/2018 20:13	WG114542
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/22/2018 20:13	WG114542
1,2-Dichloropropane	U		0.190	0.500	1	05/22/2018 20:13	WG114542
1,1-Dichloropropene	U		0.128	0.500	1	05/22/2018 20:13	WG114542
1,3-Dichloropropane	U		0.147	1.00	1	05/22/2018 20:13	WG114542
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/22/2018 20:13	WG114542
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/22/2018 20:13	WG114542
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/22/2018 20:13	WG114542
2,2-Dichloropropane	U		0.0929	0.500	1	05/22/2018 20:13	WG114542
Di-isopropyl ether	U		0.0924	0.500	1	05/22/2018 20:13	WG114542
Ethylbenzene	U		0.158	0.500	1	05/22/2018 20:13	WG114542
Hexachloro-1,3-butadiene	U	JO	0.157	1.00	1	05/22/2018 20:13	WG114542
2-Hexanone	U		0.757	5.00	1	05/22/2018 20:13	WG114542
n-Hexane	U		0.305	5.00	1	05/22/2018 20:13	WG114542
Iodomethane	U		0.377	10.0	1	05/22/2018 20:13	WG114542
Isopropylbenzene	U		0.126	0.500	1	05/22/2018 20:13	WG114542
p-Isopropyltoluene	U		0.138	0.500	1	05/22/2018 20:13	WG114542
2-Butanone (MEK)	U		1.28	5.00	1	05/22/2018 20:13	WG114542
Methylene Chloride	U		1.07	2.50	1	05/22/2018 20:13	WG114542
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/22/2018 20:13	WG114542
Methyl tert-butyl ether	U		0.102	0.500	1	05/22/2018 20:13	WG114542
Naphthalene	U	JO	0.174	2.50	1	05/22/2018 20:13	WG114542
n-Propylbenzene	U		0.162	0.500	1	05/22/2018 20:13	WG114542
Styrene	U		0.117	0.500	1	05/22/2018 20:13	WG114542
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/22/2018 20:13	WG114542
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/22/2018 20:13	WG114542

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	05/22/2018 20:13	WG1114542
Tetrachloroethene	0.380	J	0.199	0.500	1	05/22/2018 20:13	WG1114542
Toluene	U		0.412	0.500	1	05/22/2018 20:13	WG1114542
1,2,3-Trichlorobenzene	U	JO	0.164	0.500	1	05/22/2018 20:13	WG1114542
1,2,4-Trichlorobenzene	U	JO	0.355	0.500	1	05/22/2018 20:13	WG1114542
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/22/2018 20:13	WG1114542
1,1,2-Trichloroethane	U		0.186	0.500	1	05/22/2018 20:13	WG1114542
Trichloroethene	0.835		0.153	0.500	1	05/22/2018 20:13	WG1114542
Trichlorofluoromethane	U		0.130	2.50	1	05/22/2018 20:13	WG1114542
1,2,3-Trichloropropane	U		0.247	2.50	1	05/22/2018 20:13	WG1114542
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/22/2018 20:13	WG1114542
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/22/2018 20:13	WG1114542
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/22/2018 20:13	WG1114542
Vinyl acetate	U		0.645	5.00	1	05/22/2018 20:13	WG1114542
Vinyl chloride	U		0.118	0.500	1	05/22/2018 20:13	WG1114542
Xylenes, Total	0.342	J	0.316	1.50	1	05/22/2018 20:13	WG1114542
(S) Toluene-d8	93.4			80.0-120		05/22/2018 20:13	WG1114542
(S) Dibromofluoromethane	110			76.0-123		05/22/2018 20:13	WG1114542
(S) 4-Bromofluorobenzene	112			80.0-120		05/22/2018 20:13	WG1114542

- 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 date / time	Batch
Alkalinity	186000		2710	20000	1	05/29/2018 11:53	WG115235

Sample Narrative:

L995641-02 WG115235: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	10700		51.9	1000	1	05/22/2018 15:54	WG114448
Nitrate	70.3	J	22.7	100	1	05/22/2018 15:54	WG114448
Sulfate	2680	J	77.4	5000	1	05/22/2018 15:54	WG114448

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1470		102	1000	1	05/24/2018 22:21	WG115490

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	12300		15.0	100	1	05/25/2018 04:13	WG113975
Manganese	400		0.250	5.00	1	05/25/2018 04:13	WG113975

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	51.0	J	31.6	100	1	05/29/2018 20:41	WG115294-9
(S) a,a,a-Trifluorotoluene(FID)	118			77.0-122		05/29/2018 20:41	WG115294-9

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	129		0.287	0.678	1	05/23/2018 12:50	WG114645
Ethane	14.5		0.296	1.29	1	05/23/2018 12:50	WG114645
Ethene	4.75		0.422	1.27	1	05/23/2018 12:50	WG114645

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	1.83	J	1.05	25.0	1	05/22/2018 20:35	WG1114542
Acrylonitrile	U		0.873	5.00	1	05/22/2018 20:35	WG1114542
Benzene	U		0.0896	0.500	1	05/22/2018 20:35	WG1114542
Bromobenzene	U		0.133	0.500	1	05/22/2018 20:35	WG1114542
Bromodichloromethane	U		0.0800	0.500	1	05/22/2018 20:35	WG1114542
Bromochloromethane	U		0.145	0.500	1	05/22/2018 20:35	WG1114542
Bromoform	U		0.186	0.500	1	05/22/2018 20:35	WG1114542
Bromomethane	U	JO	0.157	2.50	1	05/22/2018 20:35	WG1114542
n-Butylbenzene	U		0.143	0.500	1	05/22/2018 20:35	WG1114542
sec-Butylbenzene	U		0.134	0.500	1	05/22/2018 20:35	WG1114542
tert-Butylbenzene	U		0.183	0.500	1	05/22/2018 20:35	WG1114542
Carbon disulfide	U		0.101	0.500	1	05/22/2018 20:35	WG1114542
Carbon tetrachloride	U		0.159	0.500	1	05/22/2018 20:35	WG1114542
Chlorobenzene	U		0.140	0.500	1	05/22/2018 20:35	WG1114542
Chlorodibromomethane	U		0.128	0.500	1	05/22/2018 20:35	WG1114542
Chloroethane	U	JO	0.141	2.50	1	05/22/2018 20:35	WG1114542
Chloroform	U		0.0860	0.500	1	05/22/2018 20:35	WG1114542
Chloromethane	U		0.153	1.25	1	05/22/2018 20:35	WG1114542
2-Chlorotoluene	U		0.111	0.500	1	05/22/2018 20:35	WG1114542
4-Chlorotoluene	U		0.0972	0.500	1	05/22/2018 20:35	WG1114542
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/22/2018 20:35	WG1114542
1,2-Dibromoethane	U		0.193	0.500	1	05/22/2018 20:35	WG1114542
Dibromomethane	U		0.117	0.500	1	05/22/2018 20:35	WG1114542
1,2-Dichlorobenzene	U		0.101	0.500	1	05/22/2018 20:35	WG1114542
1,3-Dichlorobenzene	U		0.130	0.500	1	05/22/2018 20:35	WG1114542
1,4-Dichlorobenzene	U		0.121	0.500	1	05/22/2018 20:35	WG1114542
Dichlorodifluoromethane	U		0.127	2.50	1	05/22/2018 20:35	WG1114542
1,1-Dichloroethane	U		0.114	0.500	1	05/22/2018 20:35	WG1114542
1,2-Dichloroethane	U		0.108	0.500	1	05/22/2018 20:35	WG1114542
1,1-Dichloroethene	0.779		0.188	0.500	1	05/22/2018 20:35	WG1114542
cis-1,2-Dichloroethene	1.89	B	0.0933	0.500	1	05/22/2018 20:35	WG1114542
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/22/2018 20:35	WG1114542
1,2-Dichloropropane	U		0.190	0.500	1	05/22/2018 20:35	WG1114542
1,1-Dichloropropene	U		0.128	0.500	1	05/22/2018 20:35	WG1114542
1,3-Dichloropropane	U		0.147	1.00	1	05/22/2018 20:35	WG1114542
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/22/2018 20:35	WG1114542
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/22/2018 20:35	WG1114542
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/22/2018 20:35	WG1114542
2,2-Dichloropropane	U		0.0929	0.500	1	05/22/2018 20:35	WG1114542
Di-isopropyl ether	U		0.0924	0.500	1	05/22/2018 20:35	WG1114542
Ethylbenzene	U		0.158	0.500	1	05/22/2018 20:35	WG1114542
Hexachloro-1,3-butadiene	U	JO	0.157	1.00	1	05/22/2018 20:35	WG1114542
2-Hexanone	U		0.757	5.00	1	05/22/2018 20:35	WG1114542
n-Hexane	U		0.305	5.00	1	05/22/2018 20:35	WG1114542
Iodomethane	U		0.377	10.0	1	05/22/2018 20:35	WG1114542
Isopropylbenzene	U		0.126	0.500	1	05/22/2018 20:35	WG1114542
p-Isopropyltoluene	U		0.138	0.500	1	05/22/2018 20:35	WG1114542
2-Butanone (MEK)	U		1.28	5.00	1	05/22/2018 20:35	WG1114542
Methylene Chloride	U		1.07	2.50	1	05/22/2018 20:35	WG1114542
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/22/2018 20:35	WG1114542
Methyl tert-butyl ether	U		0.102	0.500	1	05/22/2018 20:35	WG1114542
Naphthalene	U	JO	0.174	2.50	1	05/22/2018 20:35	WG1114542
n-Propylbenzene	U		0.162	0.500	1	05/22/2018 20:35	WG1114542
Styrene	U		0.117	0.500	1	05/22/2018 20:35	WG1114542
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/22/2018 20:35	WG1114542
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/22/2018 20:35	WG1114542

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	05/22/2018 20:35	WG114542
Tetrachloroethene	2.01		0.199	0.500	1	05/22/2018 20:35	WG114542
Toluene	U		0.412	0.500	1	05/22/2018 20:35	WG114542
1,2,3-Trichlorobenzene	U	<u>JO</u>	0.164	0.500	1	05/22/2018 20:35	WG114542
1,2,4-Trichlorobenzene	U	<u>JO</u>	0.355	0.500	1	05/22/2018 20:35	WG114542
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/22/2018 20:35	WG114542
1,1,2-Trichloroethane	U		0.186	0.500	1	05/22/2018 20:35	WG114542
Trichloroethene	1.79		0.153	0.500	1	05/22/2018 20:35	WG114542
Trichlorofluoromethane	U		0.130	2.50	1	05/22/2018 20:35	WG114542
1,2,3-Trichloropropane	U		0.247	2.50	1	05/22/2018 20:35	WG114542
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/22/2018 20:35	WG114542
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/22/2018 20:35	WG114542
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/22/2018 20:35	WG114542
Vinyl acetate	U		0.645	5.00	1	05/22/2018 20:35	WG114542
Vinyl chloride	U		0.118	0.500	1	05/22/2018 20:35	WG114542
Xylenes, Total	0.329	<u>J</u>	0.316	1.50	1	05/22/2018 20:35	WG114542
<i>(S) Toluene-d8</i>	95.0			80.0-120		05/22/2018 20:35	WG114542
<i>(S) Dibromofluoromethane</i>	111			76.0-123		05/22/2018 20:35	WG114542
<i>(S) 4-Bromofluorobenzene</i>	112			80.0-120		05/22/2018 20:35	WG114542

- 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	294000		2710	20000	1	05/29/2018 12:09	WG115235

Sample Narrative:

L995641-04 WG115235: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	25000		51.9	1000	1	05/22/2018 16:10	WG114448
Nitrate	U		22.7	100	1	05/22/2018 16:10	WG114448
Sulfate	13500		77.4	5000	1	05/22/2018 16:10	WG114448

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	1490		102	1000	1	05/24/2018 22:39	WG115490

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	9370		15.0	100	1	05/25/2018 04:17	WG113975
Manganese	758		0.250	5.00	1	05/25/2018 04:17	WG113975

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/25/2018 18:27	WG115294
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/25/2018 18:27	WG115294

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Methane	53.4		0.287	0.678	1	05/23/2018 12:53	WG114645
Ethane	2.64		0.296	1.29	1	05/23/2018 12:53	WG114645
Ethene	0.979	J	0.422	1.27	1	05/23/2018 12:53	WG114645

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	3.48	J	1.05	25.0	1	05/22/2018 20:56	WG1114542
Acrylonitrile	U		0.873	5.00	1	05/22/2018 20:56	WG1114542
Benzene	0.403	J	0.0896	0.500	1	05/22/2018 20:56	WG1114542
Bromobenzene	U		0.133	0.500	1	05/22/2018 20:56	WG1114542
Bromodichloromethane	U		0.0800	0.500	1	05/22/2018 20:56	WG1114542
Bromochloromethane	U		0.145	0.500	1	05/22/2018 20:56	WG1114542
Bromoform	U		0.186	0.500	1	05/22/2018 20:56	WG1114542
Bromomethane	U	JO	0.157	2.50	1	05/22/2018 20:56	WG1114542
n-Butylbenzene	U		0.143	0.500	1	05/22/2018 20:56	WG1114542
sec-Butylbenzene	U		0.134	0.500	1	05/22/2018 20:56	WG1114542
tert-Butylbenzene	U		0.183	0.500	1	05/22/2018 20:56	WG1114542
Carbon disulfide	U		0.101	0.500	1	05/22/2018 20:56	WG1114542
Carbon tetrachloride	U		0.159	0.500	1	05/22/2018 20:56	WG1114542
Chlorobenzene	U		0.140	0.500	1	05/22/2018 20:56	WG1114542
Chlorodibromomethane	U		0.128	0.500	1	05/22/2018 20:56	WG1114542
Chloroethane	U	JO	0.141	2.50	1	05/22/2018 20:56	WG1114542
Chloroform	U		0.0860	0.500	1	05/22/2018 20:56	WG1114542
Chloromethane	U		0.153	1.25	1	05/22/2018 20:56	WG1114542
2-Chlorotoluene	U		0.111	0.500	1	05/22/2018 20:56	WG1114542
4-Chlorotoluene	U		0.0972	0.500	1	05/22/2018 20:56	WG1114542
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/22/2018 20:56	WG1114542
1,2-Dibromoethane	U		0.193	0.500	1	05/22/2018 20:56	WG1114542
Dibromomethane	U		0.117	0.500	1	05/22/2018 20:56	WG1114542
1,2-Dichlorobenzene	U		0.101	0.500	1	05/22/2018 20:56	WG1114542
1,3-Dichlorobenzene	U		0.130	0.500	1	05/22/2018 20:56	WG1114542
1,4-Dichlorobenzene	U		0.121	0.500	1	05/22/2018 20:56	WG1114542
Dichlorodifluoromethane	U		0.127	2.50	1	05/22/2018 20:56	WG1114542
1,1-Dichloroethane	U		0.114	0.500	1	05/22/2018 20:56	WG1114542
1,2-Dichloroethane	U		0.108	0.500	1	05/22/2018 20:56	WG1114542
1,1-Dichloroethene	124		0.188	0.500	1	05/22/2018 20:56	WG1114542
cis-1,2-Dichloroethene	29500		46.6	250	500	05/23/2018 12:24	WG1114542
trans-1,2-Dichloroethene	114		0.152	0.500	1	05/22/2018 20:56	WG1114542
1,2-Dichloropropane	U		0.190	0.500	1	05/22/2018 20:56	WG1114542
1,1-Dichloropropene	U		0.128	0.500	1	05/22/2018 20:56	WG1114542
1,3-Dichloropropane	U		0.147	1.00	1	05/22/2018 20:56	WG1114542
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/22/2018 20:56	WG1114542
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/22/2018 20:56	WG1114542
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/22/2018 20:56	WG1114542
2,2-Dichloropropane	U		0.0929	0.500	1	05/22/2018 20:56	WG1114542
Di-isopropyl ether	U		0.0924	0.500	1	05/22/2018 20:56	WG1114542
Ethylbenzene	0.227	J	0.158	0.500	1	05/22/2018 20:56	WG1114542
Hexachloro-1,3-butadiene	U	JO	0.157	1.00	1	05/22/2018 20:56	WG1114542
2-Hexanone	U		0.757	5.00	1	05/22/2018 20:56	WG1114542
n-Hexane	U		0.305	5.00	1	05/22/2018 20:56	WG1114542
Iodomethane	U		0.377	10.0	1	05/22/2018 20:56	WG1114542
Isopropylbenzene	U		0.126	0.500	1	05/22/2018 20:56	WG1114542
p-Isopropyltoluene	U		0.138	0.500	1	05/22/2018 20:56	WG1114542
2-Butanone (MEK)	U		1.28	5.00	1	05/22/2018 20:56	WG1114542
Methylene Chloride	U		1.07	2.50	1	05/22/2018 20:56	WG1114542
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/22/2018 20:56	WG1114542
Methyl tert-butyl ether	U		0.102	0.500	1	05/22/2018 20:56	WG1114542
Naphthalene	0.241	B J JO	0.174	2.50	1	05/22/2018 20:56	WG1114542
n-Propylbenzene	U		0.162	0.500	1	05/22/2018 20:56	WG1114542
Styrene	U		0.117	0.500	1	05/22/2018 20:56	WG1114542
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/22/2018 20:56	WG1114542
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/22/2018 20:56	WG1114542

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	05/22/2018 20:56	WG114542
Tetrachloroethene	13500		99.5	250	500	05/23/2018 12:24	WG114542
Toluene	1.37		0.412	0.500	1	05/22/2018 20:56	WG114542
1,2,3-Trichlorobenzene	U	<u>JO</u>	0.164	0.500	1	05/22/2018 20:56	WG114542
1,2,4-Trichlorobenzene	U	<u>JO</u>	0.355	0.500	1	05/22/2018 20:56	WG114542
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/22/2018 20:56	WG114542
1,1,2-Trichloroethane	U		0.186	0.500	1	05/22/2018 20:56	WG114542
Trichloroethene	7400		76.5	250	500	05/23/2018 12:24	WG114542
Trichlorofluoromethane	U		0.130	2.50	1	05/22/2018 20:56	WG114542
1,2,3-Trichloropropane	U		0.247	2.50	1	05/22/2018 20:56	WG114542
1,2,4-Trimethylbenzene	0.816		0.123	0.500	1	05/22/2018 20:56	WG114542
1,2,3-Trimethylbenzene	0.502		0.0739	0.500	1	05/22/2018 20:56	WG114542
1,3,5-Trimethylbenzene	0.303	<u>J</u>	0.124	0.500	1	05/22/2018 20:56	WG114542
Vinyl acetate	U		0.645	5.00	1	05/22/2018 20:56	WG114542
Vinyl chloride	1650		59.0	250	500	05/23/2018 12:24	WG114542
Xylenes, Total	1.12	<u>J</u>	0.316	1.50	1	05/22/2018 20:56	WG114542
(S) Toluene-d8	97.3			80.0-120		05/22/2018 20:56	WG114542
(S) Toluene-d8	93.6			80.0-120		05/23/2018 12:24	WG114542
(S) Dibromofluoromethane	104			76.0-123		05/22/2018 20:56	WG114542
(S) Dibromofluoromethane	108			76.0-123		05/23/2018 12:24	WG114542
(S) 4-Bromofluorobenzene	113			80.0-120		05/23/2018 12:24	WG114542
(S) 4-Bromofluorobenzene	119			80.0-120		05/22/2018 20:56	WG114542

- 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	U		2710	20000	1	05/29/2018 15:54	WG115235

Sample Narrative:

L995641-06 WG115235: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	135000		260	5000	5	05/22/2018 16:25	WG114448
Nitrate	265000		1140	5000	50	05/22/2018 16:41	WG114448
Sulfate	1680	J J6	77.4	5000	1	05/24/2018 00:43	WG115226

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)	7540		102	1000	1	05/24/2018 22:56	WG115490

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	5440		15.0	100	1	05/29/2018 18:26	WG116544
Manganese	727		0.250	5.00	1	05/29/2018 18:26	WG116544

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	19700		316	1000	10	05/25/2018 18:51	WG115294
(S) a,a,a-Trifluorotoluene(FID)	110			77.0-122		05/25/2018 18:51	WG115294

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1760		0.287	0.678	1	05/23/2018 12:55	WG114645
Ethane	33.6		0.296	1.29	1	05/23/2018 12:55	WG114645
Ethene	284		0.422	1.27	1	05/23/2018 12:55	WG114645

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L995641-02 Original Sample (OS) • Duplicate (DUP)

(OS) L995641-02 05/29/18 11:53 • (DUP) R3313656-1 05/29/18 12:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	186000	187000	1	0.330		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L995823-03 Original Sample (OS) • Duplicate (DUP)

(OS) L995823-03 05/29/18 15:06 • (DUP) R3313656-5 05/29/18 15:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	84900	85800	1	1.03		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

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

(LCS) R3313656-2 05/29/18 13:09 • (LCSD) R3313656-3 05/29/18 14:48

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	106000	107000	106	107	85.0-115			1.17	20

Sample Narrative:

LCS: Endpoint pH 4.5

LCSD: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3312320-1 05/22/18 12:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Chloride	151	↓	51.9	1000
Nitrate	U		22.7	100
Sulfate	129	↓	77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L995647-01 Original Sample (OS) • Duplicate (DUP)

(OS) L995647-01 05/22/18 21:03 • (DUP) R3312320-4 05/22/18 21:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	1440	1380	1	4.28		15
Nitrate	ND	0.000	1	200	P1	15
Sulfate	13700	13600	1	0.326		15

L995647-04 Original Sample (OS) • Duplicate (DUP)

(OS) L995647-04 05/22/18 22:35 • (DUP) R3312320-7 05/22/18 22:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	ND	556	1	5.53	↓	15
Nitrate	ND	49.4	1	13.2	↓	15
Sulfate	ND	3080	1	0.614	↓	15

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

(LCS) R3312320-2 05/22/18 12:45 • (LCSD) R3312320-3 05/22/18 13:00

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	%	%	%			%	%
Chloride	40000	39300	39500	98.2	98.7	80.0-120			0.543	15
Nitrate	8000	7970	8020	99.7	100	80.0-120			0.547	15
Sulfate	40000	40200	40100	100	100	80.0-120			0.211	15



L995647-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L995647-01 05/22/18 21:03 • (MS) R3312320-5 05/22/18 21:33 • (MSD) R3312320-6 05/22/18 21:49

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	1440	51400	51500	99.9	100	1	80.0-120			0.254	15
Nitrate	5000	ND	4850	4920	96.5	97.9	1	80.0-120			1.37	15
Sulfate	50000	13700	62900	62800	98.5	98.4	1	80.0-120			0.128	15

L995647-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L995647-04 05/22/18 22:35 • (MS) R3312320-8 05/22/18 23:06

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	ND	51600	102	1	80.0-120	
Nitrate	5000	ND	5030	99.4	1	80.0-120	
Sulfate	50000	ND	53900	102	1	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) R3312622-1 05/23/18 22:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	127	J	77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L995641-06 Original Sample (OS) • Duplicate (DUP)

(OS) L995641-06 05/24/18 00:43 • (DUP) R3312622-4 05/24/18 00:59

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	1680	1580	1	6.33	J	15

L995846-09 Original Sample (OS) • Duplicate (DUP)

(OS) L995846-09 05/24/18 02:16 • (DUP) R3312622-7 05/24/18 02:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	15200	15200	1	0.276		15

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

(LCS) R3312622-2 05/23/18 23:11 • (LCSD) R3312622-3 05/23/18 23:26

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	39800	39700	99.4	99.3	80.0-120			0.0843	15

L995641-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L995641-06 05/24/18 00:43 • (MS) R3312622-5 05/24/18 01:14 • (MSD) R3312622-6 05/24/18 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
Sulfate	50000	1680	34000	36900	64.6	70.4	1	80.0-120	J6	J6	8.21	15

L995846-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L995846-09 05/24/18 02:16 • (MS) R3312622-8 05/24/18 02:46

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	15200	62300	94.1	1	80.0-120	



Method Blank (MB)

(MB) R3312911-1 05/24/18 11:54

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

L995594-04 Original Sample (OS) • Duplicate (DUP)

(OS) L995594-04 05/24/18 18:36 • (DUP) R3312911-6 05/24/18 18:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1990	2100	1	5.28		20

L995732-03 Original Sample (OS) • Duplicate (DUP)

(OS) L995732-03 05/24/18 23:48 • (DUP) R3312911-7 05/25/18 00:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	578	941	1	47.8	J P1	20

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

(LCS) R3312911-2 05/24/18 13:46 • (LCSD) R3312911-5 05/24/18 16:13

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	73600	73800	98.1	98.4	85.0-115			0.353	20

L995361-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L995361-12 05/24/18 14:28 • (MS) R3312911-3 05/24/18 14:51 • (MSD) R3312911-4 05/24/18 15:09

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	47700	48000	94.4	95.0	1	80.0-120			0.648	20



Method Blank (MB)

(MB) R3312988-1 05/25/18 02:15

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) R3312988-2 05/25/18 02:20 • (LCSD) R3312988-3 05/25/18 02:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Iron	5000	5190	5150	104	103	80.0-120			0.616	20
Manganese	50.0	48.9	48.6	97.7	97.2	80.0-120			0.611	20

5 Sr

6 Qc

L995361-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L995361-12 05/25/18 02:29 • (MS) R3312988-5 05/25/18 02:37 • (MSD) R3312988-6 05/25/18 02:42

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	ND	5070	5070	101	101	1	75.0-125			0.0682	20
Manganese	50.0	467	502	503	68.8	70.6	1	75.0-125	V	V	0.182	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3313669-1 05/29/18 17:51

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

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R3313669-2 05/29/18 17:55 • (LCSD) R3313669-3 05/29/18 18:00

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	5590	5720	112	114	80.0-120			2.24	20
Manganese	50.0	52.5	53.1	105	106	80.0-120			1.01	20

L996450-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L996450-01 05/29/18 18:04 • (MS) R3313669-5 05/29/18 18:13 • (MSD) R3313669-6 05/29/18 18:17

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	1220	6600	6580	108	107	1	75.0-125			0.377	20
Manganese	50.0	37.4	85.2	86.1	95.5	97.3	1	75.0-125			1.06	20



Method Blank (MB)

(MB) R3312738-3 05/23/18 18:38

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)	109			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) R3312738-1 05/23/18 17:27 • (LCSD) R3312738-2 05/23/18 17:51

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	4880	5410	88.6	98.3	72.0-134			10.3	20
(S) a,a,a-Trifluorotoluene(FID)				110	112	77.0-122				

L995268-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L995268-05 05/24/18 08:43 • (MS) R3312738-4 05/24/18 09:07 • (MSD) R3312738-5 05/24/18 09:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	U	678	736	12.3	13.4	1	23.0-159	J6	J6	8.12	20
(S) a,a,a-Trifluorotoluene(FID)					109	109		77.0-122				



Method Blank (MB)

(MB) R3313687-3 05/29/18 11:00

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)	120			77.0-122

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

(LCS) R3313687-1 05/29/18 09:36 • (LCSD) R3313687-2 05/29/18 10:16

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	5140	5110	93.4	92.8	72.0-134			0.635	20
(S) a,a,a-Trifluorotoluene(FID)				122	120	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) R3312305-1 05/23/18 10:43

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

L995280-01 Original Sample (OS) • Duplicate (DUP)

(OS) L995280-01 05/23/18 10:45 • (DUP) R3312305-2 05/23/18 12:40

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

L995487-07 Original Sample (OS) • Duplicate (DUP)

(OS) L995487-07 05/23/18 12:43 • (DUP) R3312305-3 05/23/18 13:23

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) R3312305-4 05/23/18 13:25 • (LCSD) R3312305-5 05/23/18 13:32

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	75.6	78.2	112	115	85.0-115			3.37	20
Ethane	129	120	120	93.0	93.3	85.0-115			0.340	20
Ethene	127	123	123	97.1	97.1	85.0-115			0.0000785	20



Method Blank (MB)

(MB) R3312139-4 05/22/18 12:50

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
Bromochloromethane	U		0.145	0.500
Bromodichloromethane	U		0.0800	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
Carbon disulfide	U		0.101	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	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
trans-1,4-Dichloro-2-butene	U		0.257	5.00
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	0.205	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
n-Hexane	U		0.305	5.00
trans-1,3-Dichloropropene	U		0.222	0.500
2,2-Dichloropropane	U		0.0929	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3312139-4 05/22/18 12:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
2-Hexanone	U		0.757	5.00
Hexachloro-1,3-butadiene	0.627	U	0.157	1.00
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	0.321	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
Toluene	U		0.412	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
1,2,3-Trichlorobenzene	0.401	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 acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	94.1			80.0-120
(S) Dibromofluoromethane	109			76.0-123
(S) 4-Bromofluorobenzene	111			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) R3312139-2 05/22/18 10:14 • (LCSD) R3312139-3 05/22/18 10:35

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 %
Bromochloromethane	25.0	27.7	27.1	111	108	76.0-122			2.12	20
n-Hexane	25.0	27.2	27.6	109	110	56.0-124			1.39	20
Acetone	125	130	122	104	97.4	10.0-160			6.82	23
Carbon disulfide	25.0	23.8	24.5	95.2	98.0	55.0-127			2.84	20
Acrylonitrile	125	155	147	124	118	60.0-142			5.12	20
Benzene	25.0	26.5	26.9	106	108	69.0-123			1.30	20
Bromobenzene	25.0	27.6	29.5	110	118	79.0-120			6.71	20
Bromodichloromethane	25.0	24.1	24.3	96.4	97.2	76.0-120			0.810	20
Bromoform	25.0	26.0	28.0	104	112	67.0-132			7.37	20
Bromomethane	25.0	17.6	18.4	70.5	73.7	18.0-160			4.48	20
n-Butylbenzene	25.0	23.3	24.7	93.2	98.7	72.0-126			5.70	20
sec-Butylbenzene	25.0	26.8	28.0	107	112	74.0-121			4.43	20
tert-Butylbenzene	25.0	25.9	27.6	103	111	75.0-122			6.59	20
Carbon tetrachloride	25.0	25.5	26.2	102	105	63.0-122			2.52	20
Chlorobenzene	25.0	23.1	23.3	92.5	93.1	79.0-121			0.652	20
Chlorodibromomethane	25.0	23.3	23.5	93.2	94.0	75.0-125			0.811	20
Chloroethane	25.0	17.5	18.1	69.9	72.4	47.0-152			3.49	20
trans-1,4-Dichloro-2-butene	25.0	32.2	33.5	129	134	55.0-134			3.95	20
Chloroform	25.0	25.0	25.1	100	100	72.0-121			0.0907	20
Chloromethane	25.0	29.7	30.6	119	122	48.0-139			2.81	20
2-Chlorotoluene	25.0	28.3	29.8	113	119	74.0-122			5.08	20
4-Chlorotoluene	25.0	28.0	29.7	112	119	79.0-120			5.89	20
1,2-Dibromo-3-Chloropropane	25.0	21.5	22.0	86.1	87.9	64.0-127			2.05	20
1,2-Dibromoethane	25.0	23.5	23.9	94.1	95.4	77.0-123			1.38	20
Dibromomethane	25.0	26.4	26.6	106	106	78.0-120			0.798	20
1,2-Dichlorobenzene	25.0	23.8	24.6	95.0	98.4	80.0-120			3.53	20
1,3-Dichlorobenzene	25.0	25.1	26.0	100	104	72.0-123			3.52	20
1,4-Dichlorobenzene	25.0	24.7	26.0	98.7	104	77.0-120			5.20	20
Dichlorodifluoromethane	25.0	23.3	23.9	93.3	95.5	49.0-155			2.28	20
1,1-Dichloroethane	25.0	29.9	29.9	120	120	70.0-126			0.00254	20
1,2-Dichloroethane	25.0	29.5	29.1	118	116	67.0-126			1.52	20
1,1-Dichloroethene	25.0	23.1	23.9	92.3	95.7	64.0-129			3.65	20
cis-1,2-Dichloroethene	25.0	25.5	25.4	102	102	73.0-120			0.405	20
2-Hexanone	125	124	123	99.2	98.0	58.0-147			1.17	20
trans-1,2-Dichloroethene	25.0	24.8	25.0	99.1	100	71.0-121			1.09	20
1,2-Dichloropropane	25.0	27.5	27.9	110	112	75.0-125			1.26	20
1,1-Dichloropropene	25.0	28.7	29.3	115	117	71.0-129			2.02	20
Iodomethane	125	122	121	97.3	96.5	57.0-140			0.880	20
1,3-Dichloropropane	25.0	26.7	26.6	107	106	80.0-121			0.384	20
cis-1,3-Dichloropropene	25.0	26.2	26.5	105	106	79.0-123			1.08	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) R3312139-2 05/22/18 10:14 • (LCSD) R3312139-3 05/22/18 10:35

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 %
trans-1,3-Dichloropropene	25.0	25.7	26.4	103	106	74.0-127			2.55	20
2,2-Dichloropropane	25.0	29.9	29.6	120	119	60.0-125			0.884	20
Di-isopropyl ether	25.0	31.7	31.3	127	125	59.0-133			1.17	20
Ethylbenzene	25.0	22.6	22.8	90.6	91.2	77.0-120			0.658	20
Hexachloro-1,3-butadiene	25.0	16.8	18.7	67.4	74.8	64.0-131			10.4	20
Isopropylbenzene	25.0	27.7	29.6	111	118	75.0-120			6.41	20
p-Isopropyltoluene	25.0	24.0	25.6	96.1	103	74.0-126			6.52	20
2-Butanone (MEK)	125	155	150	124	120	37.0-158			3.73	20
Methylene Chloride	25.0	24.6	24.6	98.6	98.5	66.0-121			0.0340	20
4-Methyl-2-pentanone (MIBK)	125	138	133	110	106	59.0-143			3.56	20
Methyl tert-butyl ether	25.0	28.5	28.1	114	112	64.0-123			1.48	20
Naphthalene	25.0	19.2	21.3	76.7	85.2	62.0-128			10.6	20
n-Propylbenzene	25.0	27.6	29.6	111	118	79.0-120			6.92	20
Styrene	25.0	27.4	29.5	110	118	78.0-124			7.25	20
1,1,1,2-Tetrachloroethane	25.0	23.5	23.1	93.9	92.5	75.0-122			1.53	20
1,1,2,2-Tetrachloroethane	25.0	27.4	28.5	110	114	71.0-122			3.84	20
Tetrachloroethene	25.0	22.2	22.3	88.6	89.3	70.0-127			0.750	20
Vinyl acetate	125	182	178	146	143	46.0-160			2.32	20
Toluene	25.0	23.0	23.4	92.0	93.6	77.0-120			1.77	20
1,1,2-Trichlorotrifluoroethane	25.0	29.4	30.1	118	120	61.0-136			2.22	20
1,2,3-Trichlorobenzene	25.0	17.1	19.5	68.4	77.9	61.0-133			12.9	20
1,2,4-Trichlorobenzene	25.0	18.6	20.5	74.5	82.1	69.0-129			9.67	20
1,1,1-Trichloroethane	25.0	25.4	25.8	102	103	68.0-122			1.43	20
1,1,2-Trichloroethane	25.0	22.3	22.2	89.1	88.8	78.0-120			0.423	20
Trichloroethene	25.0	23.3	24.2	93.0	97.0	78.0-120			4.18	20
Trichlorofluoromethane	25.0	24.3	25.1	97.2	100	56.0-137			3.09	20
1,2,3-Trichloropropane	25.0	27.6	28.8	111	115	72.0-124			4.09	20
1,2,3-Trimethylbenzene	25.0	25.6	26.4	102	106	75.0-120			3.18	20
1,2,4-Trimethylbenzene	25.0	26.1	27.5	105	110	75.0-120			5.16	20
1,3,5-Trimethylbenzene	25.0	27.2	28.7	109	115	75.0-120			5.43	20
Vinyl chloride	25.0	21.3	21.7	85.3	87.0	64.0-133			1.90	20
Xylenes, Total	75.0	69.8	70.1	93.1	93.5	77.0-120			0.429	20
(S) Toluene-d8				94.6	94.9	80.0-120				
(S) Dibromofluoromethane				108	105	76.0-123				
(S) 4-Bromofluorobenzene				111	116	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 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.
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.



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.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

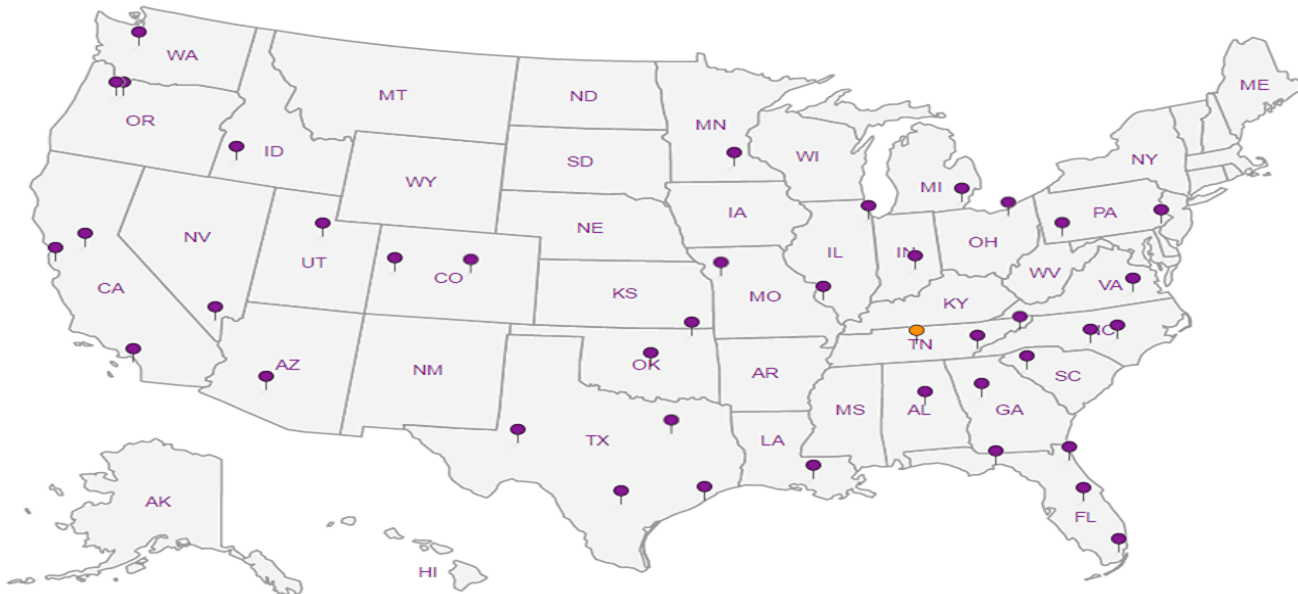
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater 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

Billing Information:
Attn: Accounts Payable
 1215 fourth ave, ste 1350
 Seattle, WA 98161

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



Report to:
Brian O'Neal

Email To:
boneal@pesenv.com

Project **American Linen**
 Description:

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

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

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Collected by (print):
Chris DeBoer

Site/Facility ID #

P.O. #

Collected by (signature):
Chris DeBoer
 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 #
5/
 Date Results Needed

No. of
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs by 8260	GRO by NWTPH-Gx	Alkalinity	Chloride	Methane, Ethane, and Ethene	Nitrate, Sulfate	Total Metals (Ferric Iron and Manganese)	Totoal Organic Carbon
MW-160-052118	Grab	GW	125	5/21/18	1000	9	X	X	X	X	X	X	X	X
MW-161-052118	Grab	GW	135	5/21/18	1140	4	X	X	X	X	X	X	X	X
MW-130-052118	Grab	GW	75	5/21/18	1325	9	X	X	X	X	X	X	X	X

L# **L995641**
E042
 Acctnum:
 Template:
 Prelogin:
 TSR:
 PB:
 Shipped Via:

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

Remarks:
VOCs only for 24hr TAT. Standard for the rest
 pH Temp
 Flow Other
 Samples returned via:
 UPS FedEx Courier
 Tracking # **4196 3259 1970**

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 Headpace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)
Chris DeBoer
 Date: **5/21/18**
 Time: **1440**

Received by: (Signature)
 Trip Blank Received: Yes No
 HCL / MeOH
 TBR
 Temp: **25.4** °C
 Bottles Received: **27**

Received for lab by: (Signature)
[Signature]
 Date: **5/22/18**
 Time: **8:45**
 Hold:
 Condition: NCF / OK

-01/02
 -03/04
 -05/06

From: Brian Ford
To: [Shannon E. McKernan](#)
Cc: [Bill Haldeman](#)
Subject: RE: Elevated NWTPH-Gx Sample Request
Date: June 6, 2018 1:18:29 PM
Attachments: [image001.png](#)
[L995641 NWTPHGX.PDF](#)
[L995641 V8260LLC.PDF](#)
[L989149 NWTPHGX.PDF](#)
[L989149 V8260LLC.PDF](#)
[L988839 NWTPHGX.PDF](#)
[L988839 V8260LLC.PDF](#)
[L984615 NWTPHGX.PDF](#)
[L984615 V8260LLC.PDF](#)

Shannon,

Yes, it appears that the CVOCs are the main contribution to the GX detections in these samples. CVOCs are considered part of the gasoline range organics. I have attached the chromatograms.

Thanks,

✉ Brian Ford

Technical Service Representative

ESC Lab Sciences-a subsidiary of Pace Analytical

12065 Lebanon Road | Mt. Juliet, TN 37122

615.773.9772

bford@esclabsciences.com | www.esclabsciences.com

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From: Shannon E. McKernan [mailto:SMcKernan@pesenv.com]
Sent: Wednesday, June 6, 2018 12:37 PM
To: Brian Ford
Cc: Bill Haldeman
Subject: Elevated NWTPH-Gx Sample Request

Hi Brian-

We have several groundwater samples with results from our American Linen project that show elevated NWTPH-Gx results. We would like to confirm if the concentrations are indeed high or if they could be biased high due to elevated CVOC concentrations. We've had several in the past that you confirmed this is likely the case to be. The samples are:

1. L984615
 - a. -04
 - b. -06
 - c. -07
2. L988839

- a. -02 (previously reported high, indicated high CVOC interference with NWTPH-Gx chromatographic profile)
- 2. L989149
 - a. -02
 - b. -03
- 3. L995641
 - a. -06 (previously reported high, indicated high CVOC interference with NWTPH-Gx chromatographic profile)

Thanks for checking these!

Shannon McKernan

Staff Geologist

PES Environmental, Inc.

1215 4th Avenue, Suite 1350

Seattle, WA 98161

Phone: (206) 529-3980, Ext. #111

Fax: (206) 529-3985

Cell: (813) 777-7575

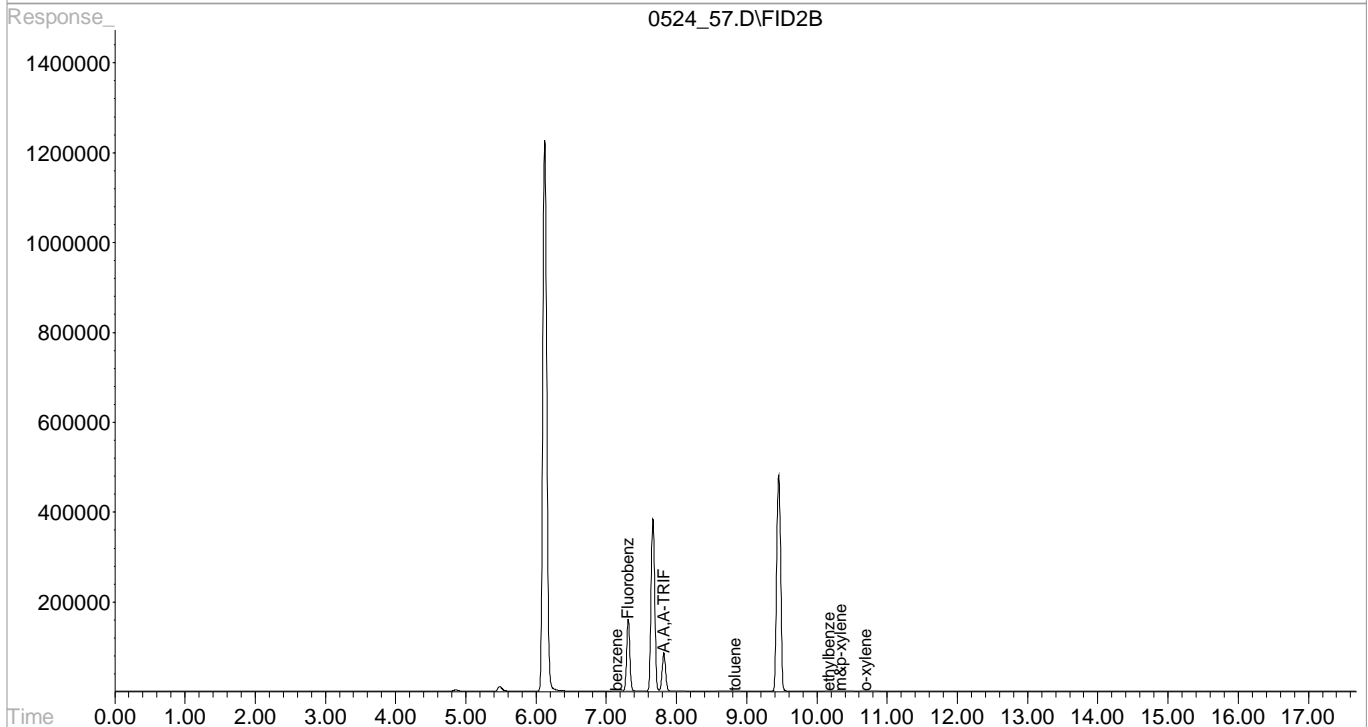
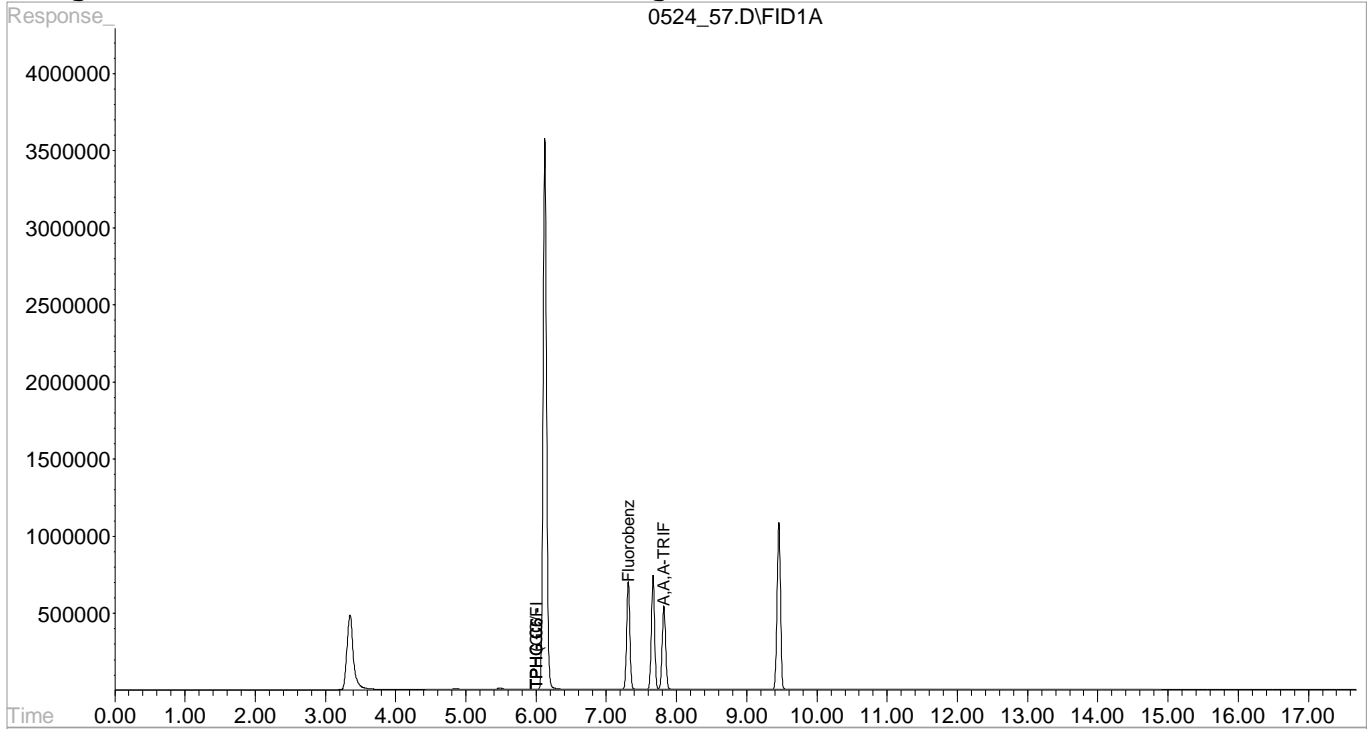
Email: smckernan@pesenv.com

Notice: This communication and any attached files may contain privileged or other confidential information. If you have received this in error, please contact the sender immediately via reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

Signal #1 : C:\HPCHEM\1\DATA\052418\0524_57.D\FID1A.CH Vial: 57
 Signal #2 : C:\HPCHEM\1\DATA\052418\0524_57.D\FID2B.CH
 Acq On : 25 May 2018 6:51 pm Operator: 605
 Sample : L995641-06B 10x WG1115294 RE Inst : VOCGC4
 Misc : WATER Multiplr: 10.00
 IntFile Signal #1: BTEX.E IntFile Signal #2: EVENTS3.E
 Quant Time: May 29 14:18 2018 Quant Results File: BG04C11R.RES

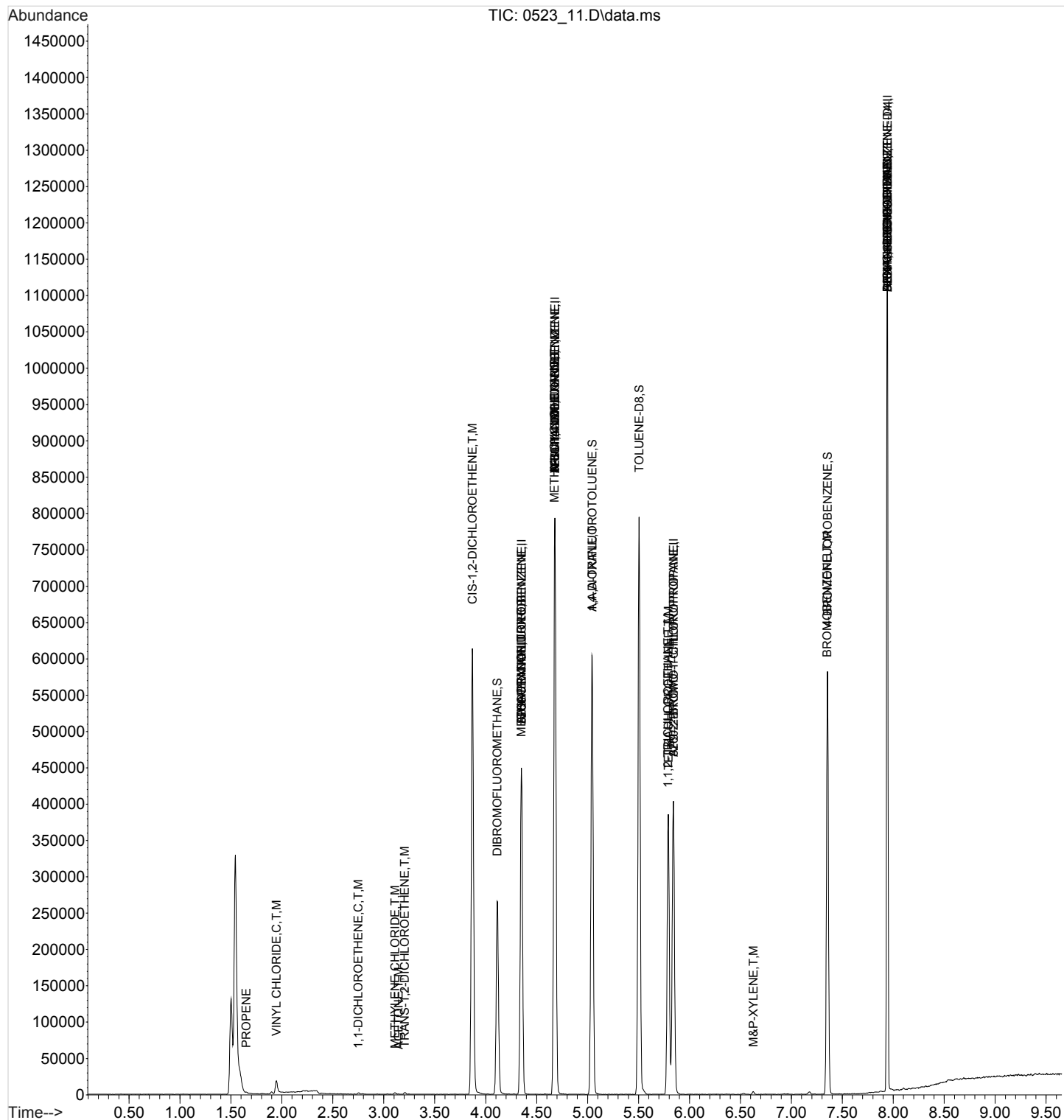
Quant Method : C:\HPCHEM\1\METHODS\BG04C11R.M (Chemstation Integrator)
 Title : WIS GRO VOCGC04
 Last Update : Mon Mar 12 09:02:32 2018
 Response via : Single Level Calibration
 DataAcq Meth : VOCGC4.M

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :



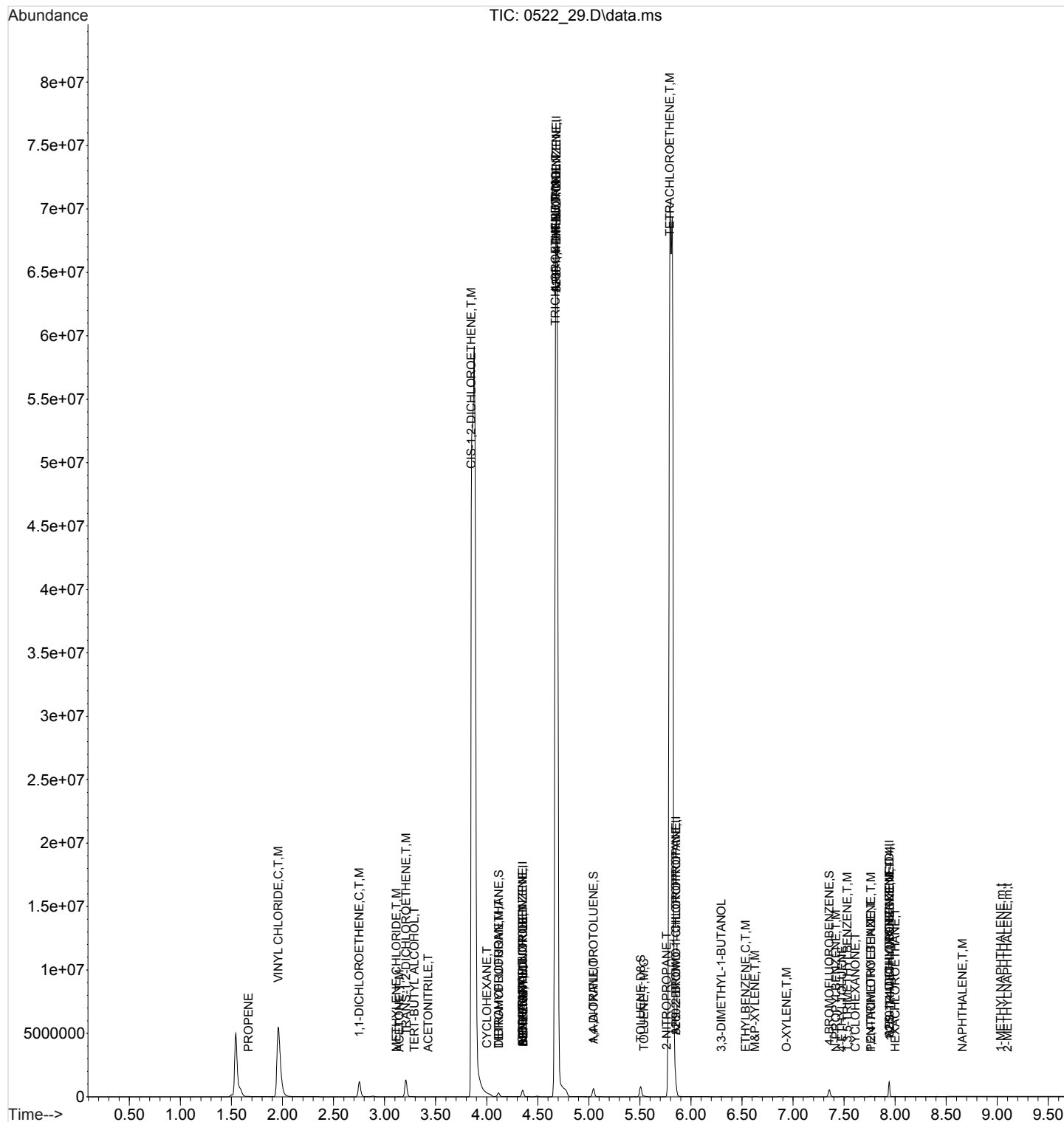
Data Path : C:\msdchem\1\data\052318\
 Data File : 0523_11.D
 Acq On : 23 May 2018 12:24 pm
 Operator : 605
 Sample : L995641-05 500x WG1114542 RE
 Misc : water
 ALS Vial : 13 Sample Multiplier: 500
 InstName : VOCMS35

Quant Time: May 23 12:43:12 2018
 Quant Method : C:\msdchem\1\methods\V835C29R.M
 Quant Title : Env. Science Corp. 8260B/6210D/624 - VOCMS35
 QLast Update : Fri Mar 30 10:30:03 2018
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\052218\
 Data File : 0522_29.D
 Acq On : 22 May 2018 8:56 pm
 Operator : 605
 Sample : L995641-05 1x WG1114542
 Misc : water
 ALS Vial : 28 Sample Multiplier: 1
 InstName : VOCMS35

Quant Time: May 22 21:38:26 2018
 Quant Method : C:\msdchem\1\methods\V835C29R.M
 Quant Title : Env. Science Corp. 8260B/6210D/624 - VOCMS35
 QLast Update : Fri Mar 30 10:30:03 2018
 Response via : Initial Calibration





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	2.05	J J	1.05	25.0	1	05/22/2018 20:13	WG114542
Acrylonitrile	U		0.873	5.00	1	05/22/2018 20:13	WG114542
Benzene	U		0.0896	0.500	1	05/22/2018 20:13	WG114542
Bromobenzene	U		0.133	0.500	1	05/22/2018 20:13	WG114542
Bromodichloromethane	U		0.0800	0.500	1	05/22/2018 20:13	WG114542
Bromochloromethane	U		0.145	0.500	1	05/22/2018 20:13	WG114542
Bromoform	U		0.186	0.500	1	05/22/2018 20:13	WG114542
Bromomethane	U	UJ JO	0.157	2.50	1	05/22/2018 20:13	WG114542
n-Butylbenzene	U		0.143	0.500	1	05/22/2018 20:13	WG114542
sec-Butylbenzene	U		0.134	0.500	1	05/22/2018 20:13	WG114542
tert-Butylbenzene	U		0.183	0.500	1	05/22/2018 20:13	WG114542
Carbon disulfide	U		0.101	0.500	1	05/22/2018 20:13	WG114542
Carbon tetrachloride	U		0.159	0.500	1	05/22/2018 20:13	WG114542
Chlorobenzene	U		0.140	0.500	1	05/22/2018 20:13	WG114542
Chlorodibromomethane	U		0.128	0.500	1	05/22/2018 20:13	WG114542
Chloroethane	U	UJ JO	0.141	2.50	1	05/22/2018 20:13	WG114542
Chloroform	0.186	J J	0.0860	0.500	1	05/22/2018 20:13	WG114542
Chloromethane	U		0.153	1.25	1	05/22/2018 20:13	WG114542
2-Chlorotoluene	U		0.111	0.500	1	05/22/2018 20:13	WG114542
4-Chlorotoluene	U		0.0972	0.500	1	05/22/2018 20:13	WG114542
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/22/2018 20:13	WG114542
1,2-Dibromoethane	U		0.193	0.500	1	05/22/2018 20:13	WG114542
Dibromomethane	U		0.117	0.500	1	05/22/2018 20:13	WG114542
1,2-Dichlorobenzene	U		0.101	0.500	1	05/22/2018 20:13	WG114542
1,3-Dichlorobenzene	U		0.130	0.500	1	05/22/2018 20:13	WG114542
1,4-Dichlorobenzene	U		0.121	0.500	1	05/22/2018 20:13	WG114542
Dichlorodifluoromethane	U		0.127	2.50	1	05/22/2018 20:13	WG114542
1,1-Dichloroethane	U		0.114	0.500	1	05/22/2018 20:13	WG114542
1,2-Dichloroethane	U		0.108	0.500	1	05/22/2018 20:13	WG114542
1,1-Dichloroethene	U		0.188	0.500	1	05/22/2018 20:13	WG114542
cis-1,2-Dichloroethene	2.96		0.0933	0.500	1	05/22/2018 20:13	WG114542
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/22/2018 20:13	WG114542
1,2-Dichloropropane	U		0.190	0.500	1	05/22/2018 20:13	WG114542
1,1-Dichloropropene	U		0.128	0.500	1	05/22/2018 20:13	WG114542
1,3-Dichloropropane	U		0.147	1.00	1	05/22/2018 20:13	WG114542
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/22/2018 20:13	WG114542
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/22/2018 20:13	WG114542
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/22/2018 20:13	WG114542
2,2-Dichloropropane	U		0.0929	0.500	1	05/22/2018 20:13	WG114542
Di-isopropyl ether	U		0.0924	0.500	1	05/22/2018 20:13	WG114542
Ethylbenzene	U		0.158	0.500	1	05/22/2018 20:13	WG114542
Hexachloro-1,3-butadiene	U	UJ JO	0.157	1.00	1	05/22/2018 20:13	WG114542
2-Hexanone	U		0.757	5.00	1	05/22/2018 20:13	WG114542
n-Hexane	U		0.305	5.00	1	05/22/2018 20:13	WG114542
Iodomethane	U		0.377	10.0	1	05/22/2018 20:13	WG114542
Isopropylbenzene	U		0.126	0.500	1	05/22/2018 20:13	WG114542
p-Isopropyltoluene	U		0.138	0.500	1	05/22/2018 20:13	WG114542
2-Butanone (MEK)	U		1.28	5.00	1	05/22/2018 20:13	WG114542
Methylene Chloride	U		1.07	2.50	1	05/22/2018 20:13	WG114542
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/22/2018 20:13	WG114542
Methyl tert-butyl ether	U		0.102	0.500	1	05/22/2018 20:13	WG114542
Naphthalene	U	UJ JO	0.174	2.50	1	05/22/2018 20:13	WG114542
n-Propylbenzene	U		0.162	0.500	1	05/22/2018 20:13	WG114542
Styrene	U		0.117	0.500	1	05/22/2018 20:13	WG114542
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/22/2018 20:13	WG114542
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/22/2018 20:13	WG114542

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	05/22/2018 20:13	WG114542
Tetrachloroethene	0.380	J <u>J</u>	0.199	0.500	1	05/22/2018 20:13	WG114542
Toluene	U		0.412	0.500	1	05/22/2018 20:13	WG114542
1,2,3-Trichlorobenzene	U	UJ <u>JO</u>	0.164	0.500	1	05/22/2018 20:13	WG114542
1,2,4-Trichlorobenzene	U	UJ <u>JO</u>	0.355	0.500	1	05/22/2018 20:13	WG114542
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/22/2018 20:13	WG114542
1,1,2-Trichloroethane	U		0.186	0.500	1	05/22/2018 20:13	WG114542
Trichloroethene	0.835		0.153	0.500	1	05/22/2018 20:13	WG114542
Trichlorofluoromethane	U		0.130	2.50	1	05/22/2018 20:13	WG114542
1,2,3-Trichloropropane	U		0.247	2.50	1	05/22/2018 20:13	WG114542
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/22/2018 20:13	WG114542
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/22/2018 20:13	WG114542
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/22/2018 20:13	WG114542
Vinyl acetate	U		0.645	5.00	1	05/22/2018 20:13	WG114542
Vinyl chloride	U		0.118	0.500	1	05/22/2018 20:13	WG114542
Xylenes, Total	0.342	J <u>J</u>	0.316	1.50	1	05/22/2018 20:13	WG114542
(S) Toluene-d8	93.4			80.0-120		05/22/2018 20:13	WG114542
(S) Dibromofluoromethane	110			76.0-123		05/22/2018 20:13	WG114542
(S) 4-Bromofluorobenzene	112			80.0-120		05/22/2018 20:13	WG114542

- 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	186000		2710	20000	1	05/29/2018 11:53	WG115235

Sample Narrative:

L995641-02 WG115235: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10700		51.9	1000	1	05/22/2018 15:54	WG114448
Nitrate	70.3	J J	22.7	100	1	05/22/2018 15:54	WG114448
Sulfate	2680	J J	77.4	5000	1	05/22/2018 15:54	WG114448

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)	1470		102	1000	1	05/24/2018 22:21	WG115490

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	12300		15.0	100	1	05/25/2018 04:13	WG113975
Manganese	400		0.250	5.00	1	05/25/2018 04:13	WG113975

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	51.0	J J	31.6	100	1	05/29/2018 20:41	WG115294-9
(S) a,a,a-Trifluorotoluene(FID)	118			77.0-122		05/29/2018 20:41	WG115294-9

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	129		0.287	0.678	1	05/23/2018 12:50	WG114645
Ethane	14.5		0.296	1.29	1	05/23/2018 12:50	WG114645
Ethene	4.75		0.422	1.27	1	05/23/2018 12:50	WG114645

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	1.83	J J	1.05	25.0	1	05/22/2018 20:35	WG114542
Acrylonitrile	U		0.873	5.00	1	05/22/2018 20:35	WG114542
Benzene	U		0.0896	0.500	1	05/22/2018 20:35	WG114542
Bromobenzene	U		0.133	0.500	1	05/22/2018 20:35	WG114542
Bromodichloromethane	U		0.0800	0.500	1	05/22/2018 20:35	WG114542
Bromochloromethane	U		0.145	0.500	1	05/22/2018 20:35	WG114542
Bromoform	U		0.186	0.500	1	05/22/2018 20:35	WG114542
Bromomethane	U	UJ JO	0.157	2.50	1	05/22/2018 20:35	WG114542
n-Butylbenzene	U		0.143	0.500	1	05/22/2018 20:35	WG114542
sec-Butylbenzene	U		0.134	0.500	1	05/22/2018 20:35	WG114542
tert-Butylbenzene	U		0.183	0.500	1	05/22/2018 20:35	WG114542
Carbon disulfide	U		0.101	0.500	1	05/22/2018 20:35	WG114542
Carbon tetrachloride	U		0.159	0.500	1	05/22/2018 20:35	WG114542
Chlorobenzene	U		0.140	0.500	1	05/22/2018 20:35	WG114542
Chlorodibromomethane	U		0.128	0.500	1	05/22/2018 20:35	WG114542
Chloroethane	U	UJ JO	0.141	2.50	1	05/22/2018 20:35	WG114542
Chloroform	U		0.0860	0.500	1	05/22/2018 20:35	WG114542
Chloromethane	U		0.153	1.25	1	05/22/2018 20:35	WG114542
2-Chlorotoluene	U		0.111	0.500	1	05/22/2018 20:35	WG114542
4-Chlorotoluene	U		0.0972	0.500	1	05/22/2018 20:35	WG114542
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/22/2018 20:35	WG114542
1,2-Dibromoethane	U		0.193	0.500	1	05/22/2018 20:35	WG114542
Dibromomethane	U		0.117	0.500	1	05/22/2018 20:35	WG114542
1,2-Dichlorobenzene	U		0.101	0.500	1	05/22/2018 20:35	WG114542
1,3-Dichlorobenzene	U		0.130	0.500	1	05/22/2018 20:35	WG114542
1,4-Dichlorobenzene	U		0.121	0.500	1	05/22/2018 20:35	WG114542
Dichlorodifluoromethane	U		0.127	2.50	1	05/22/2018 20:35	WG114542
1,1-Dichloroethane	U		0.114	0.500	1	05/22/2018 20:35	WG114542
1,2-Dichloroethane	U		0.108	0.500	1	05/22/2018 20:35	WG114542
1,1-Dichloroethene	0.779		0.188	0.500	1	05/22/2018 20:35	WG114542
cis-1,2-Dichloroethene	1.89	B	0.0933	0.500	1	05/22/2018 20:35	WG114542
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/22/2018 20:35	WG114542
1,2-Dichloropropane	U		0.190	0.500	1	05/22/2018 20:35	WG114542
1,1-Dichloropropene	U		0.128	0.500	1	05/22/2018 20:35	WG114542
1,3-Dichloropropane	U		0.147	1.00	1	05/22/2018 20:35	WG114542
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/22/2018 20:35	WG114542
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/22/2018 20:35	WG114542
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/22/2018 20:35	WG114542
2,2-Dichloropropane	U		0.0929	0.500	1	05/22/2018 20:35	WG114542
Di-isopropyl ether	U		0.0924	0.500	1	05/22/2018 20:35	WG114542
Ethylbenzene	U		0.158	0.500	1	05/22/2018 20:35	WG114542
Hexachloro-1,3-butadiene	U	UJ JO	0.157	1.00	1	05/22/2018 20:35	WG114542
2-Hexanone	U		0.757	5.00	1	05/22/2018 20:35	WG114542
n-Hexane	U		0.305	5.00	1	05/22/2018 20:35	WG114542
Iodomethane	U		0.377	10.0	1	05/22/2018 20:35	WG114542
Isopropylbenzene	U		0.126	0.500	1	05/22/2018 20:35	WG114542
p-Isopropyltoluene	U		0.138	0.500	1	05/22/2018 20:35	WG114542
2-Butanone (MEK)	U		1.28	5.00	1	05/22/2018 20:35	WG114542
Methylene Chloride	U		1.07	2.50	1	05/22/2018 20:35	WG114542
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/22/2018 20:35	WG114542
Methyl tert-butyl ether	U		0.102	0.500	1	05/22/2018 20:35	WG114542
Naphthalene	U	UJ JO	0.174	2.50	1	05/22/2018 20:35	WG114542
n-Propylbenzene	U		0.162	0.500	1	05/22/2018 20:35	WG114542
Styrene	U		0.117	0.500	1	05/22/2018 20:35	WG114542
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/22/2018 20:35	WG114542
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/22/2018 20:35	WG114542

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	05/22/2018 20:35	WG114542
Tetrachloroethene	2.01		0.199	0.500	1	05/22/2018 20:35	WG114542
Toluene	U		0.412	0.500	1	05/22/2018 20:35	WG114542
1,2,3-Trichlorobenzene	U	UJ JO	0.164	0.500	1	05/22/2018 20:35	WG114542
1,2,4-Trichlorobenzene	U	UJ JO	0.355	0.500	1	05/22/2018 20:35	WG114542
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/22/2018 20:35	WG114542
1,1,2-Trichloroethane	U		0.186	0.500	1	05/22/2018 20:35	WG114542
Trichloroethene	1.79		0.153	0.500	1	05/22/2018 20:35	WG114542
Trichlorofluoromethane	U		0.130	2.50	1	05/22/2018 20:35	WG114542
1,2,3-Trichloropropane	U		0.247	2.50	1	05/22/2018 20:35	WG114542
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/22/2018 20:35	WG114542
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/22/2018 20:35	WG114542
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/22/2018 20:35	WG114542
Vinyl acetate	U		0.645	5.00	1	05/22/2018 20:35	WG114542
Vinyl chloride	U		0.118	0.500	1	05/22/2018 20:35	WG114542
Xylenes, Total	0.329	J J	0.316	1.50	1	05/22/2018 20:35	WG114542
(S) Toluene-d8	95.0			80.0-120		05/22/2018 20:35	WG114542
(S) Dibromofluoromethane	111			76.0-123		05/22/2018 20:35	WG114542
(S) 4-Bromofluorobenzene	112			80.0-120		05/22/2018 20:35	WG114542

- 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 date / time	Batch
Alkalinity	294000		2710	20000	1	05/29/2018 12:09	WG1115235

Sample Narrative:

L995641-04 WG1115235: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	25000		51.9	1000	1	05/22/2018 16:10	WG1114448
Nitrate	U		22.7	100	1	05/22/2018 16:10	WG1114448
Sulfate	13500		77.4	5000	1	05/22/2018 16:10	WG1114448

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1490		102	1000	1	05/24/2018 22:39	WG1115490

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Iron	9370		15.0	100	1	05/25/2018 04:17	WG1113975
Manganese	758		0.250	5.00	1	05/25/2018 04:17	WG1113975

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	05/25/2018 18:27	WG1115294
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-122		05/25/2018 18:27	WG1115294

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Methane	53.4		0.287	0.678	1	05/23/2018 12:53	WG1114645
Ethane	2.64		0.296	1.29	1	05/23/2018 12:53	WG1114645
Ethene	0.979	J	0.422	1.27	1	05/23/2018 12:53	WG1114645

- 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	3.48	J J	1.05	25.0	1	05/22/2018 20:56	WG1114542
Acrylonitrile	U		0.873	5.00	1	05/22/2018 20:56	WG1114542
Benzene	0.403	J J	0.0896	0.500	1	05/22/2018 20:56	WG1114542
Bromobenzene	U		0.133	0.500	1	05/22/2018 20:56	WG1114542
Bromodichloromethane	U		0.0800	0.500	1	05/22/2018 20:56	WG1114542
Bromochloromethane	U		0.145	0.500	1	05/22/2018 20:56	WG1114542
Bromoform	U		0.186	0.500	1	05/22/2018 20:56	WG1114542
Bromomethane	U	UJ JO	0.157	2.50	1	05/22/2018 20:56	WG1114542
n-Butylbenzene	U		0.143	0.500	1	05/22/2018 20:56	WG1114542
sec-Butylbenzene	U		0.134	0.500	1	05/22/2018 20:56	WG1114542
tert-Butylbenzene	U		0.183	0.500	1	05/22/2018 20:56	WG1114542
Carbon disulfide	U		0.101	0.500	1	05/22/2018 20:56	WG1114542
Carbon tetrachloride	U		0.159	0.500	1	05/22/2018 20:56	WG1114542
Chlorobenzene	U		0.140	0.500	1	05/22/2018 20:56	WG1114542
Chlorodibromomethane	U		0.128	0.500	1	05/22/2018 20:56	WG1114542
Chloroethane	U	UJ JO	0.141	2.50	1	05/22/2018 20:56	WG1114542
Chloroform	U		0.0860	0.500	1	05/22/2018 20:56	WG1114542
Chloromethane	U		0.153	1.25	1	05/22/2018 20:56	WG1114542
2-Chlorotoluene	U		0.111	0.500	1	05/22/2018 20:56	WG1114542
4-Chlorotoluene	U		0.0972	0.500	1	05/22/2018 20:56	WG1114542
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/22/2018 20:56	WG1114542
1,2-Dibromoethane	U		0.193	0.500	1	05/22/2018 20:56	WG1114542
Dibromomethane	U		0.117	0.500	1	05/22/2018 20:56	WG1114542
1,2-Dichlorobenzene	U		0.101	0.500	1	05/22/2018 20:56	WG1114542
1,3-Dichlorobenzene	U		0.130	0.500	1	05/22/2018 20:56	WG1114542
1,4-Dichlorobenzene	U		0.121	0.500	1	05/22/2018 20:56	WG1114542
Dichlorodifluoromethane	U		0.127	2.50	1	05/22/2018 20:56	WG1114542
1,1-Dichloroethane	U		0.114	0.500	1	05/22/2018 20:56	WG1114542
1,2-Dichloroethane	U		0.108	0.500	1	05/22/2018 20:56	WG1114542
1,1-Dichloroethene	124		0.188	0.500	1	05/22/2018 20:56	WG1114542
cis-1,2-Dichloroethene	29500		46.6	250	500	05/23/2018 12:24	WG1114542
trans-1,2-Dichloroethene	114		0.152	0.500	1	05/22/2018 20:56	WG1114542
1,2-Dichloropropane	U		0.190	0.500	1	05/22/2018 20:56	WG1114542
1,1-Dichloropropene	U		0.128	0.500	1	05/22/2018 20:56	WG1114542
1,3-Dichloropropane	U		0.147	1.00	1	05/22/2018 20:56	WG1114542
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/22/2018 20:56	WG1114542
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/22/2018 20:56	WG1114542
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/22/2018 20:56	WG1114542
2,2-Dichloropropane	U		0.0929	0.500	1	05/22/2018 20:56	WG1114542
Di-isopropyl ether	U		0.0924	0.500	1	05/22/2018 20:56	WG1114542
Ethylbenzene	0.227	J J	0.158	0.500	1	05/22/2018 20:56	WG1114542
Hexachloro-1,3-butadiene	U	UJ JO	0.157	1.00	1	05/22/2018 20:56	WG1114542
2-Hexanone	U		0.757	5.00	1	05/22/2018 20:56	WG1114542
n-Hexane	U		0.305	5.00	1	05/22/2018 20:56	WG1114542
Iodomethane	U		0.377	10.0	1	05/22/2018 20:56	WG1114542
Isopropylbenzene	U		0.126	0.500	1	05/22/2018 20:56	WG1114542
p-Isopropyltoluene	U		0.138	0.500	1	05/22/2018 20:56	WG1114542
2-Butanone (MEK)	U		1.28	5.00	1	05/22/2018 20:56	WG1114542
Methylene Chloride	U		1.07	2.50	1	05/22/2018 20:56	WG1114542
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/22/2018 20:56	WG1114542
Methyl tert-butyl ether	U		0.102	0.500	1	05/22/2018 20:56	WG1114542
Naphthalene	0.241	U B J JO	0.174	2.50	1	05/22/2018 20:56	WG1114542
n-Propylbenzene	U		0.162	0.500	1	05/22/2018 20:56	WG1114542
Styrene	U		0.117	0.500	1	05/22/2018 20:56	WG1114542
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/22/2018 20:56	WG1114542
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/22/2018 20:56	WG1114542

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	05/22/2018 20:56	WG114542
Tetrachloroethene	13500		99.5	250	500	05/23/2018 12:24	WG114542
Toluene	1.37		0.412	0.500	1	05/22/2018 20:56	WG114542
1,2,3-Trichlorobenzene	U	UJ JO	0.164	0.500	1	05/22/2018 20:56	WG114542
1,2,4-Trichlorobenzene	U	UJ JO	0.355	0.500	1	05/22/2018 20:56	WG114542
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/22/2018 20:56	WG114542
1,1,2-Trichloroethane	U		0.186	0.500	1	05/22/2018 20:56	WG114542
Trichloroethene	7400		76.5	250	500	05/23/2018 12:24	WG114542
Trichlorofluoromethane	U		0.130	2.50	1	05/22/2018 20:56	WG114542
1,2,3-Trichloropropane	U		0.247	2.50	1	05/22/2018 20:56	WG114542
1,2,4-Trimethylbenzene	0.816		0.123	0.500	1	05/22/2018 20:56	WG114542
1,2,3-Trimethylbenzene	0.502		0.0739	0.500	1	05/22/2018 20:56	WG114542
1,3,5-Trimethylbenzene	0.303	J J	0.124	0.500	1	05/22/2018 20:56	WG114542
Vinyl acetate	U		0.645	5.00	1	05/22/2018 20:56	WG114542
Vinyl chloride	1650		59.0	250	500	05/23/2018 12:24	WG114542
Xylenes, Total	1.12	J J	0.316	1.50	1	05/22/2018 20:56	WG114542
(S) Toluene-d8	97.3			80.0-120		05/22/2018 20:56	WG114542
(S) Toluene-d8	93.6			80.0-120		05/23/2018 12:24	WG114542
(S) Dibromofluoromethane	104			76.0-123		05/22/2018 20:56	WG114542
(S) Dibromofluoromethane	108			76.0-123		05/23/2018 12:24	WG114542
(S) 4-Bromofluorobenzene	113			80.0-120		05/23/2018 12:24	WG114542
(S) 4-Bromofluorobenzene	119			80.0-120		05/22/2018 20:56	WG114542

- 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	U		2710	20000	1	05/29/2018 15:54	WG115235

Sample Narrative:

L995641-06 WG115235: Endpoint pH 4.5 headspace

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	135000		260	5000	5	05/22/2018 16:25	WG114448
Nitrate	265000		1140	5000	50	05/22/2018 16:41	WG114448
Sulfate	1680	J JJ6	77.4	5000	1	05/24/2018 00:43	WG115226

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)	7540		102	1000	1	05/24/2018 22:56	WG115490

Metals (ICPMS) by Method 6020A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	5440		15.0	100	1	05/29/2018 18:26	WG116544
Manganese	727		0.250	5.00	1	05/29/2018 18:26	WG116544

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	19700		316	1000	10	05/25/2018 18:51	WG115294
(S) a,a,a-Trifluorotoluene(FID)	110			77.0-122		05/25/2018 18:51	WG115294

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1760		0.287	0.678	1	05/23/2018 12:55	WG114645
Ethane	33.6		0.296	1.29	1	05/23/2018 12:55	WG114645
Ethene	284		0.422	1.27	1	05/23/2018 12:55	WG114645

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MEMORANDUM

TO: Project File **DATE:** June 12, 2018
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: American Linen Data Validation
PROJECT #: 1413.001.05.304
TASK: April and May 2018 - Groundwater Samples
LAB: ESC Sample Delivery Groups L988839, L989529, L989149, L989898, L990247, L991410, and L995641

Thirty-one (31) groundwater samples (including two field duplicates), one (1) equipment blank, and two (2) trip blank samples were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington, between April 25 and May 21, 2018. 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 (TPH-Gx) by NWTPH-Gx per analytical methods stipulated by Washington State Department of Ecology;
- VOCs by EPA SOP RSK 175;
- Alkalinity by Method 2320 B-2011;
- Anions (Chloride, Nitrate, and Sulfate) by USEPA Method 9056A;
- Total Organic Carbon (TOC) by USEPA Method 9060A; and
- Metals (iron and manganese) by USEPA Method 6020A.

Associated sample data are reported in seven ESC SDGs (L988839, L989529, L989149, L989898, L990247, L991410, and L995641). The quality assurance review of the sample data are summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation 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 Superfund Organic 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 in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation less than 6°C. Samples were received in good condition with the following discussions:

- SDGs L988839 and L989149: Review of associated chain of custodies (COCs) show that the relinquished portions were not signed however daily field forms show a record of sample delivery to FedEx for shipment to ESC. Internal corrective action has been implemented by PES to ensure that all COCs are signed and dated when relinquishing possession/custody of the samples.
- SDG L989898: One of the vials for sample MW-143-043018 was received broken. ESC notified PES and proceeded with analysis.
- SDG L990247: One of the vials for sample EQ-0501118 was received broken. ESC notified PES and proceeded with analysis.
- SDG L991410: ESC did not receive a container for analysis for ferric iron analysis requested on the chain of custody form. ESC contacted PES to clarify the requested analysis. PES clarified that sample MW-106-05-04-18 should be analyzed for total iron and not ferric iron.
- SDG L995641: Three groundwater samples were submitted for a full suite of analytical parameters. A rapid 24 hour turn was requested for VOC analysis and normal turn was requested on the remaining analytical parameters. ESC applied two laboratory identifications for each sample for internal tracking purposes. No action was taken other than to note this.

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 EPA recommended holding time of fourteen days for preserved waters from the date of 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.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

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.

USEPA Method 6020A:

All samples were analyzed within the USEPA recommended holding time for arsenic of 180 days for preserved waters from the date of sample collection. All holding time criteria were met.

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

All samples were analyzed within the USEPA recommended holding time for alkalinity (14 days), chloride (28 days), sulfate (28 days), and nitrate (48 hours), and TOC (28 days) for preserved waters from the date of sample collection. All holding time criteria were met with the following exceptions:

- SDG L988839 – Analytical batch WG1103510: Sample MW-139-042518 was initially analyzed within the required holding time but was reanalyzed eight days past the recommended holding time due to an elevated precision result. **The nitrate result for MW-139-042518 is a non-detect, rejected, and qualified (R) due to a gross holding time exceedance. For further details refer to the section on Laboratory Duplicates.**

Initial and Continuing Calibration

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

- SDG L988839 - *USEPA Method 8260C*: Continuing calibration verification (CCV) issues were noted by ESC for vinyl acetate associated with analytical batch WG1103800 (analyzed on April 27, 2018). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**
- SDG L989529 - *USEPA Method 8260C*: Continuing calibration verification (CCV) issues were noted by ESC for vinyl chloride associated with analytical batch WG1104728 (analyzed on April 29, 2018). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**
- SDG L995641 - *USEPA Method 8260C*: Continuing calibration verification (CCV) issues were noted by ESC for bromomethane, chloroethane, hexachloro-1,3-butadiene, naphthalene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene associated with analytical batch WG1114542 (analyzed on May 22, 2018). These results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **All associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were not detected in the method blanks at or above the reporting detection limits (RDLs) with the following exceptions:

- SDG L988839 - Analytical batch WG1103800: Low levels of hexachloro-1,3-butadiene and 1,2,3-trichlorobenzene are detected in the method blank. No action is necessary as these compounds are not detected in the associated samples.
- SDG L989898 - Analytical batch WG1105522: A low level of hexachloro-1,3-butadiene is detected in the method blank. No action is necessary as this compound is not detected in the associated samples.
- SDG L995641 - Analytical batch WG1114542: A low level of cis-1,2-dichloroethene, hexachloro-1,3-butadiene, naphthalene and 1,2,3-trichlorobenzene are detected in the method blank below the RDL. Naphthalene was detected at a low level, below the RDL, in sample MW-130-052118. **Naphthalene result for sample MW-130-052118 is qualified is not detected (U) due to method blank contamination.** For the remaining compounds cis-1,2-dichloroethene, hexachloro-1,3-butadiene, and 1,2,3-trichlorobenzene no action was necessary as these compounds were not detected in the associated samples below the RDL.

NWTPH-Gx Method:

Laboratory method blanks were included with the analytical batches per method requirement. The target analyte (gasoline) was not detected in the method blanks at or above the RDLs with the following exceptions:

- SDG L989529 - Analytical batch WG1104802: Gasoline was detected at a low level in the method blank. Gasoline was detected at low levels in associated samples MW-142-042718, MW-155-042718, and MW-145-042718. **Samples MW-142-042718, MW-155-042718, and MW-145-042718 gasoline results were reported below the RDL and are qualified as not detected (U) due to method blank contamination.**
- SDG L989898 - Analytical batch WG1105159: Gasoline was detected at a low level in the method blank. Gasoline was detected at low levels in associated samples MW-154-043018 and MW-143-043018. No action is required for sample MW-143-043018 since the contamination in the method blank is less than the RDL. **Sample MW-154-043018 gasoline result reported below the RDL is qualified as not detected (U) due to method blank contamination.**
- SDG L990247 - Analytical batch WG1106035: Gasoline as detected at a low level in the method blank and was also detected at a low level in associated equipment blank sample EQ-050118. **Equipment blank sample EQ-050118 gasoline result was reported below the RDL and is qualified as not detected (U) due to method blank contamination.**

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

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

USEPA Method 6020A:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were not detected in the method blanks at or above the RDLs with the following exceptions:

- SDG L989149 - Analytical batch WG1104177: Manganese was detected at a low level in the method blank. No action was taken since the sample amounts are far greater than the detection in the method blank
- SDG L989529 - Analytical batch WG1104647: Manganese was detected at a low level in the method blank. No action was taken since the sample amounts are far greater than the detection in the method blank

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were not detected in the method blanks at or above the RDLs with the following exceptions:

- SDG L988839 - Analytical batch WG1103755: TOC was detected at a low level in the method blank. No action was necessary as TOC detections in the associated samples are far greater than the detection in the associated method blank.
- SDG L990247 - Analytical batch WG1105796: Sulfate was detected at a low level in the method blank. No action was necessary as sulfate detections in the associated samples are far greater than the detection in the method blank.
- SDG L991410: Analytical batch WG1109945: TOC was detected at a low level in the method blank. No action was necessary as TOC detection in the associated sample is far greater than the detection in the method blank.
- SDG L995641 - Analytical batch WG1114448: Chloride and sulfate were detected at low levels in the method blank. No action was necessary as chloride and sulfate detections in the associated samples are far greater than the detection in the method blank.
- All SDGs: Alkalinity method blanks are not analyzed by the laboratory. No action is taken other than to note this.

Trip Blank Results

USEPA Method 8260C and NWTPH-Gx Method:

Two trip blanks were collected and analyzed. The target analytes were not detected in the trip blanks at or above the RDLs with the following exceptions:

- SDG L989149 - Analytical batch WG1104412: A low level of acetone was detected in the trip blank. **Associated samples (IW-4C-042618, MW-156-042618, and MW-159-042618) with acetone detected less than the RDL are qualified (U) as not detected due to trip blank contamination.**

Field, Rinsate, or Equipment Blank Results

Equipment blank was collected and analyzed. The target analytes were not detected in the equipment blank at or above the RDLs with the following exceptions:

- SDG L990247: Low levels of alkalinity, chloride, TOC, manganese, gasoline, acetone, and chloroform were detected in the equipment blank sample EQ-050118. No action was taken for alkalinity, chloride, TOC, and manganese as levels are significantly higher than the detections in the equipment blank. Chloroform was either not detected or detected significantly higher than the detection in the equipment blank and no action was required. Acetone was detected at a low level in samples MW-148-050118, MW-153-050118, IW-11D-050118, MW-905-050118, and MW-147-050118. **The acetone results in sample MW-148-050118, MW-153-050118, IW-11D-050118, MW-905-050118, and MW-147-050118 are qualified as not detected (U) due to possible equipment blank contamination. Gasoline was also detected in the associated method blank therefore the gasoline result in the equipment blank sample is qualified as not detected (U) due to method blank contamination.**

Field Duplicate Analyses

Field duplicate pairs were submitted and analyzed. Field duplicate sample pair is as follows:

- SDG L990247: Samples MW-905-050118 and MW-148-050118

VOC target analyte results are comparable and within a relative percent difference (RPD) of 30% (for results >5X the RDL) for the field duplicate.

Laboratory Duplicate Analyses

USEPA Method 8260C:

A laboratory duplicate sample was not analyzed. Refer to the section on Laboratory Control Samples for additional details.

NWTPH-Gx Method:

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

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

Laboratory duplicate sample analyses were performed on client samples and on non-client samples within the analytical batch. The primary/duplicate RPDs for dissolved gas analyses are within the laboratory control limit of 20%.

USEPA Method 6020A:

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

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

A laboratory duplicate sample was performed on client samples and on non-client samples. The primary/duplicate RPDs for general chemistry parameters are within the laboratory control limits with the following issue:

- SDG L988839 - Analytical batch WG1103510: Laboratory duplicate for nitrate was initially performed on sample MW-139-042518 within holding time. The sample was reanalyzed outside of holding time due to an elevated RPD result for nitrate. ESC initial results for the sample and sample duplicate are 658 µg/L and non-detect (100 µg/L). ESC opted to report the original result as a non-detect due to initial results. **The nitrate result for MW-139-042518 is a non-detect, rejected, and qualified (R) due to holding time exceedance. For further details refer to the section on Holding Times.**
- SDG L990247 - Analytical batch WG1105796: Laboratory duplicate was performed on the equipment sample EQ-050118. Sample laboratory duplicate RPD result for chloride was 200%. No action was taken since for results are less than five times the reporting limit.
- SDG L991410 - Analytical batch WG1107365: Laboratory duplicate for nitrate was performed on the sample MW-106-050418. Sample laboratory duplicate RPD result for nitrate was 200%. No action was taken since for results are both below the RDL and less than five times the reporting limit.
- SDG L995641 – Analytical batch WG1115490: Laboratory duplicates for TOC were performed on non-client samples. Sample laboratory duplicate RPD result for nitrate was 48%. No action was taken since for results are both below the RDL and less than five times the reporting limit.

Surrogate Recoveries

USEPA Method 8260C:

The surrogate recovery results for the samples, laboratory control samples, and blanks are within the laboratory surrogate control limits for all of the analyses.

NWTPH-Gx Method:

The surrogate recovery results for the samples, laboratory control samples, matrix spike samples, and blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

Laboratory control sample (LCS) or LCS/LCSD were analyzed by USEPA Method 8260C method. The LCS % Rs or LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for waters with the following discussion:

- SDGs L988839, L989149, L989529, L989898, L990247, and L991410: A laboratory control sample duplicate was not analyzed and VOC precision data are not available. No action was taken other than to note this. Refer to SDG L990247 for field duplicate precision data.

NWTPH-Gx Method:

The LCS/LCSD %Rs and RPDs for the target compound (gasoline) are within the laboratory control criteria for waters.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

The LCS/LCSD %Rs and RPDs for the target compound (dissolved gases) are within the laboratory control criteria for waters.

USEPA Method 6020A:

The LCS/LCSD %Rs and RPDs for the target compound (iron and manganese) are within the laboratory control criteria for waters.

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

The LCS/LCSD %Rs and RPDs for general chemistry parameters are within the laboratory control criteria for waters.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Refer to LCS and field duplicate data for accuracy and precision data.

NWTPH-Gx Method:

MS/MSD analyses were performed on client and/or non-client samples within the analytical batches. In cases where MS/MSD spike analyses are not performed refer to LCS/LCSD for accuracy and precision data. The MS/MSD %Rs and RPDs for all target compounds are within the laboratory control criteria for waters with the following exception:

- SDG L995641 – Analytical batch WG1115294: MS/MSD was performed on a non-client sample. Gasoline results are laboratory qualified (J6) since recoveries are below laboratory criteria. No action was taken since the MS/MSD was performed on a non-client sample and LCS/LCSD results are acceptable.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

MS/MSD analyses were performed on client and/or non-client samples within the analytical batches. The MS/MSD % Rs and RPD were acceptable and within laboratory control limit criteria for water samples with the following exceptions:

- SDG L989149 - Analytical batch WG1106076: MS/MSD was performed on a non-client sample and methane results are laboratory qualified (V) since the sample concentrations are greater than four times the spike concentration. Ethane and ethene MS/MSD recoveries are below laboratory acceptance criteria and are laboratory qualified (J6). No action was taken since the MS/MSD was performed on a non-client sample and LCS/LCSD results are acceptable.

USEPA Method 6020A:

MS/MSD analyses were performed on client and/or non-client samples within the analytical batches. The MS/MSD % Rs and RPD were acceptable and within laboratory control limit criteria for water samples with the following exceptions:

- SDG L988839 - Analytical batch WG1103346: Manganese MS/MSD was performed on a non-client sample and results are laboratory qualified (J6) since the recoveries are below criteria. No action is taken since the spike was performed on a non-client sample and LCS/LCSD results are acceptable.
- SDG L990247 – Analytical batch WG1106119: Manganese MS/MSD was performed on sample MW-153-050118 and results are laboratory qualified (V) since the sample concentrations are greater than four times the spike concentration. No action is necessary.
- SDG L991410 – Analytical batch WG1108904: Manganese MS/MSD was performed on a client sample associated with SDG L992074. MS/MSD results are laboratory qualified (V) since the sample concentrations are greater than four times the spike concentration. No action is necessary.
- SDG L995641 – Analytical batch WG1113975: Manganese MS/MSD was performed on a non-client sample and results are laboratory qualified (V) since the sample concentrations are greater than four times the spike concentration. No action is necessary.

General Chemistry (Alkalinity, Chloride, Sulfate, Nitrate, and TOC):

MS/MSD analyses were performed on client and/or non-client samples within the analytical batches. The MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following exception:

- SDG L990247 – Analytical batch WG1105796: Chloride MS/MSD was performed on a non-client sample and results are laboratory qualified (J5 and J3) since the MS recovery and associated RPD are both above acceptance criteria. No action was taken since the spike was performed on a non-client sample and LCS/LCSD results are acceptable.

- SDG L995641 – Analytical batch WG1115226: Sulfate MS/MSD was performed on a sample MW-130-052118 and results are laboratory qualified (J6) since the recoveries are below criteria. **Sulfate result for sample MW-130-052118 is estimated (J) due to low MS/MSD recoveries.**

In cases where MS/MSD spike analyses are not performed refer to LCS/LCSD or laboratory duplicate data for accuracy and precision data.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussion:

- SDGs L989529, L989149, L989898, L990247, L991410, and L995641: Sample narratives for a number of alkalinity results indicate that sample containers had some headspace and exposure to air may have impacted the reported results. No action was taken other than to note this.

Quantitation Limits

Results of the analyses were reported based on laboratory RDLs for all compounds. RDLs for selected compounds are elevated due to method-required dilutions. The RDLs used for this sample group are acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes. ESC sample narrative notes indicate that for water sample IW-22B-042518 (SDG L988839) the target compounds were too high to run the sample at a lower dilution. Specific issues were also identified by laboratory qualifier or sample narratives and are noted as follows:

- SDG L989149 - Analytical Batch WG1104412: Tetrachloroethene (PCE) result for sample MW-156-042618 was not reportable without a dilution factor (1X) due to possible carryover and could not be reanalyzed at a lower dilution due to high levels of targets. **Sample MW-156-042618 PCE result is estimated (UJ) due to the 50X 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 the criteria outlined in:

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

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use with the following exceptions:

- SDG L988839: Sample MW-139-042518 was analyzed 8 days past the recommended holding time due to poor precision data. **The nitrate result for MW-139-042518 is a non-detect, rejected, and qualified (R) due to a gross holding time exceedance.**

May 17, 2018

PES Environmental, Inc.- WA

Sample Delivery Group: L993391
Samples Received: 05/11/2018
Project Number: 1413.001.05.601
Description: American Linen
Site: 1413.001.05.601
Report To: Brian O'Neal/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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MW-160-40 L993391-04	12	
MW-160-50 L993391-05	14	⁶Qc
MW-160-55 L993391-06	16	
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SAMPLE SUMMARY



MW-160-11 L993391-01 Solid

Collected by Shannon McKernan
 Collected date/time 05/08/18 08:55
 Received date/time 05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111243	1	05/15/18 12:56	05/15/18 13:05	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1.24	05/12/18 19:24	05/15/18 13:12	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1.24	05/12/18 19:24	05/16/18 11:01	DWR

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

MW-160-21 L993391-02 Solid

Collected by Shannon McKernan
 Collected date/time 05/08/18 09:15
 Received date/time 05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111243	1	05/15/18 12:56	05/15/18 13:05	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 13:32	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1	05/12/18 19:24	05/16/18 11:21	DWR

MW-160-31 L993391-03 Solid

Collected by Shannon McKernan
 Collected date/time 05/08/18 09:28
 Received date/time 05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111243	1	05/15/18 12:56	05/15/18 13:05	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 13:52	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1	05/12/18 19:24	05/16/18 11:41	DWR

MW-160-40 L993391-04 Solid

Collected by Shannon McKernan
 Collected date/time 05/08/18 09:45
 Received date/time 05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111243	1	05/15/18 12:56	05/15/18 13:05	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 14:12	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1	05/12/18 19:24	05/16/18 12:01	DWR

MW-160-50 L993391-05 Solid

Collected by Shannon McKernan
 Collected date/time 05/08/18 11:00
 Received date/time 05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111244	1	05/15/18 09:55	05/15/18 10:06	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 14:32	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1	05/12/18 19:24	05/16/18 12:21	DWR

MW-160-55 L993391-06 Solid

Collected by Shannon McKernan
 Collected date/time 05/08/18 11:15
 Received date/time 05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111244	1	05/15/18 09:55	05/15/18 10:06	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 14:51	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	8	05/12/18 19:24	05/16/18 14:00	DWR

SAMPLE SUMMARY



MW-160-60 L993391-07 Solid

Collected by
Shannon McKernan
Collected date/time
05/08/18 11:30
Received date/time
05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111244	1	05/15/18 09:55	05/15/18 10:06	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 15:11	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1	05/12/18 19:24	05/16/18 12:40	DWR

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW-160-70 L993391-08 Solid

Collected by
Shannon McKernan
Collected date/time
05/08/18 12:55
Received date/time
05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111244	1	05/15/18 09:55	05/15/18 10:06	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 15:30	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1	05/12/18 19:24	05/16/18 13:01	DWR

MW-160-90 L993391-09 Solid

Collected by
Shannon McKernan
Collected date/time
05/08/18 14:28
Received date/time
05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111244	1	05/15/18 09:55	05/15/18 10:06	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 15:50	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1	05/12/18 19:24	05/16/18 13:20	DWR

MW-160-100 L993391-10 Solid

Collected by
Shannon McKernan
Collected date/time
05/08/18 15:05
Received date/time
05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111244	1	05/15/18 09:55	05/15/18 10:06	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982	1	05/12/18 19:24	05/15/18 16:09	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110982-1	1	05/12/18 19:24	05/16/18 13:40	DWR

MW-160-110 L993391-11 Solid

Collected by
Shannon McKernan
Collected date/time
05/08/18 15:30
Received date/time
05/11/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111244	1	05/15/18 09:55	05/15/18 10:06	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/12/18 19:24	05/13/18 22:01	ACG



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.

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	Batch
	%			date / time	
Total Solids	76.4		1	05/15/2018 13:05	WG111243

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	0.0290	J	0.0223	0.0406	1.24	05/15/2018 13:12	WG110982
Acrylonitrile	U		0.00309	0.0203	1.24	05/15/2018 13:12	WG110982
Benzene	U		0.000649	0.00162	1.24	05/15/2018 13:12	WG110982
Bromobenzene	U		0.00170	0.0203	1.24	05/15/2018 13:12	WG110982
Bromodichloromethane	U		0.00128	0.00406	1.24	05/15/2018 13:12	WG110982
Bromochloromethane	U		0.00183	0.00812	1.24	05/15/2018 13:12	WG110982
Bromoform	U		0.00971	0.0406	1.24	05/15/2018 13:12	WG110982
Bromomethane	U		0.00601	0.0203	1.24	05/15/2018 13:12	WG110982
n-Butylbenzene	U		0.00623	0.0203	1.24	05/15/2018 13:12	WG110982
sec-Butylbenzene	U		0.00411	0.0203	1.24	05/15/2018 13:12	WG110982
tert-Butylbenzene	U		0.00251	0.00812	1.24	05/15/2018 13:12	WG110982
Carbon disulfide	0.00861	J	0.00658	0.0203	1.24	05/15/2018 13:12	WG110982
Carbon tetrachloride	U		0.00175	0.00812	1.24	05/15/2018 13:12	WG110982
Chlorobenzene	U		0.000929	0.00406	1.24	05/15/2018 13:12	WG110982
Chlorodibromomethane	U		0.000730	0.00406	1.24	05/15/2018 13:12	WG110982
Chloroethane	U		0.00175	0.00812	1.24	05/15/2018 13:12	WG110982
Chloroform	U		0.000674	0.00406	1.24	05/15/2018 13:12	WG110982
Chloromethane	U	JO	0.00225	0.0203	1.24	05/15/2018 13:12	WG110982
2-Chlorotoluene	U		0.00149	0.00406	1.24	05/15/2018 13:12	WG110982
4-Chlorotoluene	U		0.00183	0.00812	1.24	05/15/2018 13:12	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00827	0.0406	1.24	05/15/2018 13:12	WG110982
1,2-Dibromoethane	U		0.000852	0.00406	1.24	05/15/2018 13:12	WG110982
Dibromomethane	U		0.00162	0.00812	1.24	05/15/2018 13:12	WG110982
1,2-Dichlorobenzene	U		0.00236	0.00812	1.24	05/15/2018 13:12	WG110982
1,3-Dichlorobenzene	U		0.00276	0.00812	1.24	05/15/2018 13:12	WG110982
1,4-Dichlorobenzene	U		0.00319	0.00812	1.24	05/15/2018 13:12	WG110982
Dichlorodifluoromethane	U		0.00132	0.00406	1.24	05/15/2018 13:12	WG110982
1,1-Dichloroethane	U		0.000933	0.00406	1.24	05/15/2018 13:12	WG110982
1,2-Dichloroethane	U		0.000771	0.00406	1.24	05/15/2018 13:12	WG110982
1,1-Dichloroethene	U		0.000812	0.00406	1.24	05/15/2018 13:12	WG110982
cis-1,2-Dichloroethene	U		0.00112	0.00406	1.24	05/15/2018 13:12	WG110982
trans-1,2-Dichloroethene	U		0.00232	0.00812	1.24	05/15/2018 13:12	WG110982
1,2-Dichloropropane	U		0.00206	0.00812	1.24	05/15/2018 13:12	WG110982
1,1-Dichloropropene	U		0.00114	0.00406	1.24	05/15/2018 13:12	WG110982
1,3-Dichloropropane	U	J4	0.00284	0.00812	1.24	05/15/2018 13:12	WG110982
cis-1,3-Dichloropropene	U		0.00110	0.00406	1.24	05/15/2018 13:12	WG110982
trans-1,3-Dichloropropene	U		0.00249	0.00812	1.24	05/15/2018 13:12	WG110982
trans-1,4-Dichloro-2-butene	U		0.00228	0.00812	1.24	05/15/2018 13:12	WG110982
2,2-Dichloropropane	U		0.00129	0.00406	1.24	05/15/2018 13:12	WG110982
Di-isopropyl ether	U		0.000568	0.00162	1.24	05/15/2018 13:12	WG110982
Ethylbenzene	U		0.000860	0.00406	1.24	05/15/2018 13:12	WG110982
Hexachloro-1,3-butadiene	U		0.0206	0.0406	1.24	05/15/2018 13:12	WG110982
2-Hexanone	U		0.0162	0.0406	1.24	05/15/2018 13:12	WG110982
n-Hexane	U		0.00171	0.00812	1.24	05/16/2018 11:01	WG110982-1
Iodomethane	U		0.00982	0.0203	1.24	05/15/2018 13:12	WG110982
Isopropylbenzene	U		0.00140	0.00406	1.24	05/15/2018 13:12	WG110982
p-Isopropyltoluene	U		0.00378	0.00812	1.24	05/15/2018 13:12	WG110982
2-Butanone (MEK)	U		0.0203	0.0406	1.24	05/15/2018 13:12	WG110982
Methylene Chloride	U		0.0108	0.0406	1.24	05/15/2018 13:12	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0162	0.0406	1.24	05/15/2018 13:12	WG110982

- 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	<u>JO J4</u>	0.000479	0.00162	1.24	05/15/2018 13:12	WG110982
Naphthalene	U		0.00507	0.0203	1.24	05/15/2018 13:12	WG110982
n-Propylbenzene	U		0.00191	0.00812	1.24	05/15/2018 13:12	WG110982
Styrene	U		0.00442	0.0203	1.24	05/15/2018 13:12	WG110982
1,1,1,2-Tetrachloroethane	U		0.000812	0.00406	1.24	05/15/2018 13:12	WG110982
1,1,2,2-Tetrachloroethane	U		0.000634	0.00406	1.24	05/15/2018 13:12	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.00110	0.00406	1.24	05/15/2018 13:12	WG110982
Tetrachloroethene	U		0.00114	0.00406	1.24	05/15/2018 13:12	WG110982
Toluene	0.00635	<u>L</u>	0.00203	0.00812	1.24	05/15/2018 13:12	WG110982
1,2,3-Trichlorobenzene	0.00136	<u>L</u>	0.00101	0.00406	1.24	05/15/2018 13:12	WG110982
1,2,4-Trichlorobenzene	U		0.00783	0.0203	1.24	05/15/2018 13:12	WG110982
1,1,1-Trichloroethane	U		0.000446	0.00406	1.24	05/15/2018 13:12	WG110982
1,1,2-Trichloroethane	U		0.00143	0.00406	1.24	05/15/2018 13:12	WG110982
Trichloroethene	U		0.000649	0.00162	1.24	05/15/2018 13:12	WG110982
Trichlorofluoromethane	U		0.000812	0.00406	1.24	05/15/2018 13:12	WG110982
1,2,3-Trichloropropane	U		0.00827	0.0203	1.24	05/15/2018 13:12	WG110982
1,2,4-Trimethylbenzene	U		0.00188	0.00812	1.24	05/15/2018 13:12	WG110982
1,2,3-Trimethylbenzene	U		0.00187	0.00812	1.24	05/15/2018 13:12	WG110982
1,3,5-Trimethylbenzene	U		0.00175	0.00812	1.24	05/15/2018 13:12	WG110982
Vinyl acetate	U		0.00571	0.0203	1.24	05/15/2018 13:12	WG110982
Vinyl chloride	U		0.00111	0.00406	1.24	05/15/2018 13:12	WG110982
Xylenes, Total	U		0.00776	0.0106	1.24	05/15/2018 13:12	WG110982
(S) Toluene-d8	110			80.0-120		05/15/2018 13:12	WG110982
(S) Toluene-d8	105			80.0-120		05/16/2018 11:01	WG110982-1
(S) Dibromofluoromethane	100			74.0-131		05/15/2018 13:12	WG110982
(S) Dibromofluoromethane	91.8			74.0-131		05/16/2018 11:01	WG110982-1
(S) 4-Bromofluorobenzene	98.2			64.0-132		05/15/2018 13:12	WG110982
(S) 4-Bromofluorobenzene	104			64.0-132		05/16/2018 11:01	WG110982-1

- 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	85.3		1	05/15/2018 13:05	WG111243

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	0.0255	J	0.0161	0.0293	1	05/15/2018 13:32	WG110982
Acrylonitrile	U		0.00223	0.0147	1	05/15/2018 13:32	WG110982
Benzene	0.000662	J	0.000469	0.00117	1	05/15/2018 13:32	WG110982
Bromobenzene	U		0.00123	0.0147	1	05/15/2018 13:32	WG110982
Bromodichloromethane	U		0.000924	0.00293	1	05/15/2018 13:32	WG110982
Bromochloromethane	U		0.00132	0.00586	1	05/15/2018 13:32	WG110982
Bromoform	U		0.00701	0.0293	1	05/15/2018 13:32	WG110982
Bromomethane	U		0.00434	0.0147	1	05/15/2018 13:32	WG110982
n-Butylbenzene	U		0.00450	0.0147	1	05/15/2018 13:32	WG110982
sec-Butylbenzene	U		0.00297	0.0147	1	05/15/2018 13:32	WG110982
tert-Butylbenzene	U		0.00182	0.00586	1	05/15/2018 13:32	WG110982
Carbon disulfide	U		0.00476	0.0147	1	05/15/2018 13:32	WG110982
Carbon tetrachloride	U		0.00127	0.00586	1	05/15/2018 13:32	WG110982
Chlorobenzene	U		0.000672	0.00293	1	05/15/2018 13:32	WG110982
Chlorodibromomethane	U		0.000527	0.00293	1	05/15/2018 13:32	WG110982
Chloroethane	U		0.00127	0.00586	1	05/15/2018 13:32	WG110982
Chloroform	U		0.000486	0.00293	1	05/15/2018 13:32	WG110982
Chloromethane	U	JO	0.00163	0.0147	1	05/15/2018 13:32	WG110982
2-Chlorotoluene	U		0.00108	0.00293	1	05/15/2018 13:32	WG110982
4-Chlorotoluene	U		0.00132	0.00586	1	05/15/2018 13:32	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00598	0.0293	1	05/15/2018 13:32	WG110982
1,2-Dibromoethane	U		0.000615	0.00293	1	05/15/2018 13:32	WG110982
Dibromomethane	U		0.00117	0.00586	1	05/15/2018 13:32	WG110982
1,2-Dichlorobenzene	U		0.00170	0.00586	1	05/15/2018 13:32	WG110982
1,3-Dichlorobenzene	U		0.00199	0.00586	1	05/15/2018 13:32	WG110982
1,4-Dichlorobenzene	U		0.00231	0.00586	1	05/15/2018 13:32	WG110982
Dichlorodifluoromethane	U		0.000959	0.00293	1	05/15/2018 13:32	WG110982
1,1-Dichloroethane	U		0.000674	0.00293	1	05/15/2018 13:32	WG110982
1,2-Dichloroethane	U		0.000557	0.00293	1	05/15/2018 13:32	WG110982
1,1-Dichloroethene	U		0.000586	0.00293	1	05/15/2018 13:32	WG110982
cis-1,2-Dichloroethene	0.00357		0.000809	0.00293	1	05/15/2018 13:32	WG110982
trans-1,2-Dichloroethene	U		0.00168	0.00586	1	05/15/2018 13:32	WG110982
1,2-Dichloropropane	U		0.00149	0.00586	1	05/15/2018 13:32	WG110982
1,1-Dichloropropene	U		0.000821	0.00293	1	05/15/2018 13:32	WG110982
1,3-Dichloropropane	U	J4	0.00205	0.00586	1	05/15/2018 13:32	WG110982
cis-1,3-Dichloropropene	U		0.000795	0.00293	1	05/15/2018 13:32	WG110982
trans-1,3-Dichloropropene	U		0.00179	0.00586	1	05/15/2018 13:32	WG110982
trans-1,4-Dichloro-2-butene	U		0.00164	0.00586	1	05/15/2018 13:32	WG110982
2,2-Dichloropropane	U		0.000930	0.00293	1	05/15/2018 13:32	WG110982
Di-isopropyl ether	U		0.000410	0.00117	1	05/15/2018 13:32	WG110982
Ethylbenzene	U		0.000621	0.00293	1	05/15/2018 13:32	WG110982
Hexachloro-1,3-butadiene	U		0.0149	0.0293	1	05/15/2018 13:32	WG110982
2-Hexanone	U		0.0117	0.0293	1	05/15/2018 13:32	WG110982
n-Hexane	U		0.00124	0.00586	1	05/16/2018 11:21	WG110982-1
Iodomethane	U		0.00709	0.0147	1	05/15/2018 13:32	WG110982
Isopropylbenzene	U		0.00101	0.00293	1	05/15/2018 13:32	WG110982
p-Isopropyltoluene	U		0.00273	0.00586	1	05/15/2018 13:32	WG110982
2-Butanone (MEK)	U		0.0147	0.0293	1	05/15/2018 13:32	WG110982
Methylene Chloride	U		0.00778	0.0293	1	05/15/2018 13:32	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0293	1	05/15/2018 13:32	WG110982

- 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	JO J4	0.000346	0.00117	1	05/15/2018 13:32	WG110982
Naphthalene	U		0.00366	0.0147	1	05/15/2018 13:32	WG110982
n-Propylbenzene	U		0.00138	0.00586	1	05/15/2018 13:32	WG110982
Styrene	U		0.00320	0.0147	1	05/15/2018 13:32	WG110982
1,1,1,2-Tetrachloroethane	U		0.000586	0.00293	1	05/15/2018 13:32	WG110982
1,1,2,2-Tetrachloroethane	U		0.000457	0.00293	1	05/15/2018 13:32	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000791	0.00293	1	05/15/2018 13:32	WG110982
Tetrachloroethene	0.000966	LJ	0.000821	0.00293	1	05/15/2018 13:32	WG110982
Toluene	0.00421	LJ	0.00147	0.00586	1	05/15/2018 13:32	WG110982
1,2,3-Trichlorobenzene	U		0.000733	0.00293	1	05/15/2018 13:32	WG110982
1,2,4-Trichlorobenzene	U		0.00565	0.0147	1	05/15/2018 13:32	WG110982
1,1,1-Trichloroethane	U		0.000322	0.00293	1	05/15/2018 13:32	WG110982
1,1,2-Trichloroethane	U		0.00104	0.00293	1	05/15/2018 13:32	WG110982
Trichloroethene	U		0.000469	0.00117	1	05/15/2018 13:32	WG110982
Trichlorofluoromethane	U		0.000586	0.00293	1	05/15/2018 13:32	WG110982
1,2,3-Trichloropropane	U		0.00598	0.0147	1	05/15/2018 13:32	WG110982
1,2,4-Trimethylbenzene	U		0.00136	0.00586	1	05/15/2018 13:32	WG110982
1,2,3-Trimethylbenzene	U		0.00135	0.00586	1	05/15/2018 13:32	WG110982
1,3,5-Trimethylbenzene	U		0.00127	0.00586	1	05/15/2018 13:32	WG110982
Vinyl acetate	U		0.00413	0.0147	1	05/15/2018 13:32	WG110982
Vinyl chloride	U		0.000801	0.00293	1	05/15/2018 13:32	WG110982
Xylenes, Total	U		0.00560	0.00762	1	05/15/2018 13:32	WG110982
(S) Toluene-d8	112			80.0-120		05/15/2018 13:32	WG110982
(S) Toluene-d8	82.6			80.0-120		05/16/2018 11:21	WG110982-1
(S) Dibromofluoromethane	99.1			74.0-131		05/15/2018 13:32	WG110982
(S) Dibromofluoromethane	90.9			74.0-131		05/16/2018 11:21	WG110982-1
(S) 4-Bromofluorobenzene	97.7			64.0-132		05/15/2018 13:32	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 11:21	WG110982-1

- 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	82.4		1	05/15/2018 13:05	WG111243

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	0.0203	J	0.0166	0.0303	1	05/15/2018 13:52	WG110982
Acrylonitrile	U		0.00230	0.0152	1	05/15/2018 13:52	WG110982
Benzene	0.000503	J	0.000485	0.00121	1	05/15/2018 13:52	WG110982
Bromobenzene	U		0.00127	0.0152	1	05/15/2018 13:52	WG110982
Bromodichloromethane	U		0.000956	0.00303	1	05/15/2018 13:52	WG110982
Bromochloromethane	U		0.00137	0.00606	1	05/15/2018 13:52	WG110982
Bromoform	U		0.00725	0.0303	1	05/15/2018 13:52	WG110982
Bromomethane	U		0.00449	0.0152	1	05/15/2018 13:52	WG110982
n-Butylbenzene	U		0.00466	0.0152	1	05/15/2018 13:52	WG110982
sec-Butylbenzene	U		0.00307	0.0152	1	05/15/2018 13:52	WG110982
tert-Butylbenzene	U		0.00188	0.00606	1	05/15/2018 13:52	WG110982
Carbon disulfide	U		0.00492	0.0152	1	05/15/2018 13:52	WG110982
Carbon tetrachloride	U		0.00131	0.00606	1	05/15/2018 13:52	WG110982
Chlorobenzene	U		0.000695	0.00303	1	05/15/2018 13:52	WG110982
Chlorodibromomethane	U		0.000546	0.00303	1	05/15/2018 13:52	WG110982
Chloroethane	U		0.00131	0.00606	1	05/15/2018 13:52	WG110982
Chloroform	U		0.000503	0.00303	1	05/15/2018 13:52	WG110982
Chloromethane	U	JO	0.00169	0.0152	1	05/15/2018 13:52	WG110982
2-Chlorotoluene	U		0.00112	0.00303	1	05/15/2018 13:52	WG110982
4-Chlorotoluene	U		0.00137	0.00606	1	05/15/2018 13:52	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00619	0.0303	1	05/15/2018 13:52	WG110982
1,2-Dibromoethane	U		0.000637	0.00303	1	05/15/2018 13:52	WG110982
Dibromomethane	U		0.00121	0.00606	1	05/15/2018 13:52	WG110982
1,2-Dichlorobenzene	U		0.00176	0.00606	1	05/15/2018 13:52	WG110982
1,3-Dichlorobenzene	U		0.00206	0.00606	1	05/15/2018 13:52	WG110982
1,4-Dichlorobenzene	U		0.00239	0.00606	1	05/15/2018 13:52	WG110982
Dichlorodifluoromethane	U		0.000992	0.00303	1	05/15/2018 13:52	WG110982
1,1-Dichloroethane	U		0.000697	0.00303	1	05/15/2018 13:52	WG110982
1,2-Dichloroethane	U		0.000576	0.00303	1	05/15/2018 13:52	WG110982
1,1-Dichloroethene	U		0.000606	0.00303	1	05/15/2018 13:52	WG110982
cis-1,2-Dichloroethene	U		0.000837	0.00303	1	05/15/2018 13:52	WG110982
trans-1,2-Dichloroethene	U		0.00173	0.00606	1	05/15/2018 13:52	WG110982
1,2-Dichloropropane	U		0.00154	0.00606	1	05/15/2018 13:52	WG110982
1,1-Dichloropropene	U		0.000849	0.00303	1	05/15/2018 13:52	WG110982
1,3-Dichloropropane	U	J4	0.00212	0.00606	1	05/15/2018 13:52	WG110982
cis-1,3-Dichloropropene	U		0.000822	0.00303	1	05/15/2018 13:52	WG110982
trans-1,3-Dichloropropene	U		0.00186	0.00606	1	05/15/2018 13:52	WG110982
trans-1,4-Dichloro-2-butene	U		0.00170	0.00606	1	05/15/2018 13:52	WG110982
2,2-Dichloropropane	U		0.000962	0.00303	1	05/15/2018 13:52	WG110982
Di-isopropyl ether	U		0.000425	0.00121	1	05/15/2018 13:52	WG110982
Ethylbenzene	U		0.000643	0.00303	1	05/15/2018 13:52	WG110982
Hexachloro-1,3-butadiene	U		0.0154	0.0303	1	05/15/2018 13:52	WG110982
2-Hexanone	U		0.0121	0.0303	1	05/15/2018 13:52	WG110982
n-Hexane	U		0.00129	0.00606	1	05/16/2018 11:41	WG110982-1
Iodomethane	U		0.00734	0.0152	1	05/15/2018 13:52	WG110982
Isopropylbenzene	U		0.00105	0.00303	1	05/15/2018 13:52	WG110982
p-Isopropyltoluene	U		0.00283	0.00606	1	05/15/2018 13:52	WG110982
2-Butanone (MEK)	U		0.0152	0.0303	1	05/15/2018 13:52	WG110982
Methylene Chloride	U		0.00805	0.0303	1	05/15/2018 13:52	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0303	1	05/15/2018 13:52	WG110982

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	<u>JO J4</u>	0.000358	0.00121	1	05/15/2018 13:52	WG110982
Naphthalene	U		0.00378	0.0152	1	05/15/2018 13:52	WG110982
n-Propylbenzene	U		0.00143	0.00606	1	05/15/2018 13:52	WG110982
Styrene	U		0.00331	0.0152	1	05/15/2018 13:52	WG110982
1,1,1,2-Tetrachloroethane	U		0.000606	0.00303	1	05/15/2018 13:52	WG110982
1,1,2,2-Tetrachloroethane	U		0.000473	0.00303	1	05/15/2018 13:52	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000819	0.00303	1	05/15/2018 13:52	WG110982
Tetrachloroethene	U		0.000849	0.00303	1	05/15/2018 13:52	WG110982
Toluene	0.00285	<u>J</u>	0.00152	0.00606	1	05/15/2018 13:52	WG110982
1,2,3-Trichlorobenzene	U		0.000758	0.00303	1	05/15/2018 13:52	WG110982
1,2,4-Trichlorobenzene	U		0.00585	0.0152	1	05/15/2018 13:52	WG110982
1,1,1-Trichloroethane	U		0.000334	0.00303	1	05/15/2018 13:52	WG110982
1,1,2-Trichloroethane	U		0.00107	0.00303	1	05/15/2018 13:52	WG110982
Trichloroethene	U		0.000485	0.00121	1	05/15/2018 13:52	WG110982
Trichlorofluoromethane	U		0.000606	0.00303	1	05/15/2018 13:52	WG110982
1,2,3-Trichloropropane	U		0.00619	0.0152	1	05/15/2018 13:52	WG110982
1,2,4-Trimethylbenzene	U		0.00141	0.00606	1	05/15/2018 13:52	WG110982
1,2,3-Trimethylbenzene	U		0.00139	0.00606	1	05/15/2018 13:52	WG110982
1,3,5-Trimethylbenzene	U		0.00131	0.00606	1	05/15/2018 13:52	WG110982
Vinyl acetate	U		0.00427	0.0152	1	05/15/2018 13:52	WG110982
Vinyl chloride	U		0.000828	0.00303	1	05/15/2018 13:52	WG110982
Xylenes, Total	U		0.00580	0.00788	1	05/15/2018 13:52	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 13:52	WG110982
(S) Toluene-d8	102			80.0-120		05/16/2018 11:41	WG110982-1
(S) Dibromofluoromethane	98.1			74.0-131		05/15/2018 13:52	WG110982
(S) Dibromofluoromethane	87.2			74.0-131		05/16/2018 11:41	WG110982-1
(S) 4-Bromofluorobenzene	100			64.0-132		05/15/2018 13:52	WG110982
(S) 4-Bromofluorobenzene	106			64.0-132		05/16/2018 11:41	WG110982-1

- 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	88.1		1	05/15/2018 13:05	WG111243

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		0.0156	0.0284	1	05/15/2018 14:12	WG110982
Acrylonitrile	U		0.00216	0.0142	1	05/15/2018 14:12	WG110982
Benzene	U		0.000454	0.00114	1	05/15/2018 14:12	WG110982
Bromobenzene	U		0.00119	0.0142	1	05/15/2018 14:12	WG110982
Bromodichloromethane	U		0.000895	0.00284	1	05/15/2018 14:12	WG110982
Bromochloromethane	U		0.00128	0.00568	1	05/15/2018 14:12	WG110982
Bromoform	U		0.00679	0.0284	1	05/15/2018 14:12	WG110982
Bromomethane	U		0.00420	0.0142	1	05/15/2018 14:12	WG110982
n-Butylbenzene	U		0.00436	0.0142	1	05/15/2018 14:12	WG110982
sec-Butylbenzene	U		0.00287	0.0142	1	05/15/2018 14:12	WG110982
tert-Butylbenzene	U		0.00176	0.00568	1	05/15/2018 14:12	WG110982
Carbon disulfide	U		0.00461	0.0142	1	05/15/2018 14:12	WG110982
Carbon tetrachloride	U		0.00123	0.00568	1	05/15/2018 14:12	WG110982
Chlorobenzene	U		0.000651	0.00284	1	05/15/2018 14:12	WG110982
Chlorodibromomethane	U		0.000511	0.00284	1	05/15/2018 14:12	WG110982
Chloroethane	U		0.00123	0.00568	1	05/15/2018 14:12	WG110982
Chloroform	U		0.000471	0.00284	1	05/15/2018 14:12	WG110982
Chloromethane	U	JO	0.00158	0.0142	1	05/15/2018 14:12	WG110982
2-Chlorotoluene	U		0.00104	0.00284	1	05/15/2018 14:12	WG110982
4-Chlorotoluene	U		0.00128	0.00568	1	05/15/2018 14:12	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00579	0.0284	1	05/15/2018 14:12	WG110982
1,2-Dibromoethane	U		0.000596	0.00284	1	05/15/2018 14:12	WG110982
Dibromomethane	U		0.00114	0.00568	1	05/15/2018 14:12	WG110982
1,2-Dichlorobenzene	U		0.00165	0.00568	1	05/15/2018 14:12	WG110982
1,3-Dichlorobenzene	U		0.00193	0.00568	1	05/15/2018 14:12	WG110982
1,4-Dichlorobenzene	U		0.00224	0.00568	1	05/15/2018 14:12	WG110982
Dichlorodifluoromethane	U		0.000929	0.00284	1	05/15/2018 14:12	WG110982
1,1-Dichloroethane	U		0.000653	0.00284	1	05/15/2018 14:12	WG110982
1,2-Dichloroethane	U		0.000539	0.00284	1	05/15/2018 14:12	WG110982
1,1-Dichloroethene	U		0.000568	0.00284	1	05/15/2018 14:12	WG110982
cis-1,2-Dichloroethene	0.151		0.000783	0.00284	1	05/15/2018 14:12	WG110982
trans-1,2-Dichloroethene	0.00373	J	0.00162	0.00568	1	05/15/2018 14:12	WG110982
1,2-Dichloropropane	U		0.00144	0.00568	1	05/15/2018 14:12	WG110982
1,1-Dichloropropene	U		0.000795	0.00284	1	05/15/2018 14:12	WG110982
1,3-Dichloropropane	U	J4	0.00199	0.00568	1	05/15/2018 14:12	WG110982
cis-1,3-Dichloropropene	U		0.000770	0.00284	1	05/15/2018 14:12	WG110982
trans-1,3-Dichloropropene	U		0.00174	0.00568	1	05/15/2018 14:12	WG110982
trans-1,4-Dichloro-2-butene	U		0.00159	0.00568	1	05/15/2018 14:12	WG110982
2,2-Dichloropropane	U		0.000900	0.00284	1	05/15/2018 14:12	WG110982
Di-isopropyl ether	U		0.000397	0.00114	1	05/15/2018 14:12	WG110982
Ethylbenzene	U		0.000602	0.00284	1	05/15/2018 14:12	WG110982
Hexachloro-1,3-butadiene	U		0.0144	0.0284	1	05/15/2018 14:12	WG110982
2-Hexanone	U		0.0114	0.0284	1	05/15/2018 14:12	WG110982
n-Hexane	U		0.00120	0.00568	1	05/16/2018 12:01	WG110982-1
Iodomethane	U		0.00687	0.0142	1	05/15/2018 14:12	WG110982
Isopropylbenzene	U		0.000980	0.00284	1	05/15/2018 14:12	WG110982
p-Isopropyltoluene	U		0.00265	0.00568	1	05/15/2018 14:12	WG110982
2-Butanone (MEK)	U		0.0142	0.0284	1	05/15/2018 14:12	WG110982
Methylene Chloride	U		0.00754	0.0284	1	05/15/2018 14:12	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0284	1	05/15/2018 14:12	WG110982

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



Collected date/time: 05/08/18 09:45

L993391

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	<u>JO J4</u>	0.000335	0.00114	1	05/15/2018 14:12	WG110982
Naphthalene	U		0.00354	0.0142	1	05/15/2018 14:12	WG110982
n-Propylbenzene	U		0.00134	0.00568	1	05/15/2018 14:12	WG110982
Styrene	U		0.00310	0.0142	1	05/15/2018 14:12	WG110982
1,1,1,2-Tetrachloroethane	U		0.000568	0.00284	1	05/15/2018 14:12	WG110982
1,1,2,2-Tetrachloroethane	U		0.000443	0.00284	1	05/15/2018 14:12	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000766	0.00284	1	05/15/2018 14:12	WG110982
Tetrachloroethene	0.281		0.000795	0.00284	1	05/15/2018 14:12	WG110982
Toluene	0.00196	<u>J</u>	0.00142	0.00568	1	05/15/2018 14:12	WG110982
1,2,3-Trichlorobenzene	U		0.000710	0.00284	1	05/15/2018 14:12	WG110982
1,2,4-Trichlorobenzene	U		0.00547	0.0142	1	05/15/2018 14:12	WG110982
1,1,1-Trichloroethane	U		0.000312	0.00284	1	05/15/2018 14:12	WG110982
1,1,2-Trichloroethane	U		0.00100	0.00284	1	05/15/2018 14:12	WG110982
Trichloroethene	0.100		0.000454	0.00114	1	05/15/2018 14:12	WG110982
Trichlorofluoromethane	U		0.000568	0.00284	1	05/15/2018 14:12	WG110982
1,2,3-Trichloropropane	U		0.00579	0.0142	1	05/15/2018 14:12	WG110982
1,2,4-Trimethylbenzene	U		0.00132	0.00568	1	05/15/2018 14:12	WG110982
1,2,3-Trimethylbenzene	U		0.00131	0.00568	1	05/15/2018 14:12	WG110982
1,3,5-Trimethylbenzene	U		0.00123	0.00568	1	05/15/2018 14:12	WG110982
Vinyl acetate	U		0.00400	0.0142	1	05/15/2018 14:12	WG110982
Vinyl chloride	U		0.000775	0.00284	1	05/15/2018 14:12	WG110982
Xylenes, Total	U		0.00543	0.00738	1	05/15/2018 14:12	WG110982
(S) Toluene-d8	112			80.0-120		05/15/2018 14:12	WG110982
(S) Toluene-d8	106			80.0-120		05/16/2018 12:01	WG110982-1
(S) Dibromofluoromethane	97.2			74.0-131		05/15/2018 14:12	WG110982
(S) Dibromofluoromethane	89.9			74.0-131		05/16/2018 12:01	WG110982-1
(S) 4-Bromofluorobenzene	99.7			64.0-132		05/15/2018 14:12	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 12:01	WG110982-1

- 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	87.5		1	05/15/2018 10:06	WG111244

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		0.0157	0.0286	1	05/15/2018 14:32	WG110982
Acrylonitrile	U		0.00217	0.0143	1	05/15/2018 14:32	WG110982
Benzene	U		0.000457	0.00114	1	05/15/2018 14:32	WG110982
Bromobenzene	U		0.00120	0.0143	1	05/15/2018 14:32	WG110982
Bromodichloromethane	U		0.000900	0.00286	1	05/15/2018 14:32	WG110982
Bromochloromethane	U		0.00129	0.00571	1	05/15/2018 14:32	WG110982
Bromoform	U		0.00683	0.0286	1	05/15/2018 14:32	WG110982
Bromomethane	U		0.00423	0.0143	1	05/15/2018 14:32	WG110982
n-Butylbenzene	U		0.00439	0.0143	1	05/15/2018 14:32	WG110982
sec-Butylbenzene	U		0.00289	0.0143	1	05/15/2018 14:32	WG110982
tert-Butylbenzene	U		0.00177	0.00571	1	05/15/2018 14:32	WG110982
Carbon disulfide	U		0.00464	0.0143	1	05/15/2018 14:32	WG110982
Carbon tetrachloride	U		0.00123	0.00571	1	05/15/2018 14:32	WG110982
Chlorobenzene	U		0.000655	0.00286	1	05/15/2018 14:32	WG110982
Chlorodibromomethane	U		0.000514	0.00286	1	05/15/2018 14:32	WG110982
Chloroethane	U		0.00123	0.00571	1	05/15/2018 14:32	WG110982
Chloroform	U		0.000474	0.00286	1	05/15/2018 14:32	WG110982
Chloromethane	U	J0	0.00159	0.0143	1	05/15/2018 14:32	WG110982
2-Chlorotoluene	U		0.00105	0.00286	1	05/15/2018 14:32	WG110982
4-Chlorotoluene	U		0.00129	0.00571	1	05/15/2018 14:32	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00583	0.0286	1	05/15/2018 14:32	WG110982
1,2-Dibromoethane	U		0.000600	0.00286	1	05/15/2018 14:32	WG110982
Dibromomethane	U		0.00114	0.00571	1	05/15/2018 14:32	WG110982
1,2-Dichlorobenzene	U		0.00166	0.00571	1	05/15/2018 14:32	WG110982
1,3-Dichlorobenzene	U		0.00194	0.00571	1	05/15/2018 14:32	WG110982
1,4-Dichlorobenzene	U		0.00225	0.00571	1	05/15/2018 14:32	WG110982
Dichlorodifluoromethane	U		0.000935	0.00286	1	05/15/2018 14:32	WG110982
1,1-Dichloroethane	U		0.000657	0.00286	1	05/15/2018 14:32	WG110982
1,2-Dichloroethane	U		0.000543	0.00286	1	05/15/2018 14:32	WG110982
1,1-Dichloroethene	U		0.000571	0.00286	1	05/15/2018 14:32	WG110982
cis-1,2-Dichloroethene	0.00694		0.000788	0.00286	1	05/15/2018 14:32	WG110982
trans-1,2-Dichloroethene	U		0.00163	0.00571	1	05/15/2018 14:32	WG110982
1,2-Dichloropropane	U		0.00145	0.00571	1	05/15/2018 14:32	WG110982
1,1-Dichloropropene	U		0.000800	0.00286	1	05/15/2018 14:32	WG110982
1,3-Dichloropropane	U	J4	0.00200	0.00571	1	05/15/2018 14:32	WG110982
cis-1,3-Dichloropropene	U		0.000775	0.00286	1	05/15/2018 14:32	WG110982
trans-1,3-Dichloropropene	U		0.00175	0.00571	1	05/15/2018 14:32	WG110982
trans-1,4-Dichloro-2-butene	U		0.00160	0.00571	1	05/15/2018 14:32	WG110982
2,2-Dichloropropane	U		0.000906	0.00286	1	05/15/2018 14:32	WG110982
Di-isopropyl ether	U		0.000400	0.00114	1	05/15/2018 14:32	WG110982
Ethylbenzene	U		0.000606	0.00286	1	05/15/2018 14:32	WG110982
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	05/15/2018 14:32	WG110982
2-Hexanone	U		0.0114	0.0286	1	05/15/2018 14:32	WG110982
n-Hexane	U		0.00121	0.00571	1	05/16/2018 12:21	WG110982-1
Iodomethane	U		0.00691	0.0143	1	05/15/2018 14:32	WG110982
Isopropylbenzene	U		0.000986	0.00286	1	05/15/2018 14:32	WG110982
p-Isopropyltoluene	U		0.00266	0.00571	1	05/15/2018 14:32	WG110982
2-Butanone (MEK)	U		0.0143	0.0286	1	05/15/2018 14:32	WG110982
Methylene Chloride	U		0.00759	0.0286	1	05/15/2018 14:32	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	05/15/2018 14:32	WG110982

- 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	<u>JO J4</u>	0.000337	0.00114	1	05/15/2018 14:32	WG110982
Naphthalene	U		0.00356	0.0143	1	05/15/2018 14:32	WG110982
n-Propylbenzene	U		0.00135	0.00571	1	05/15/2018 14:32	WG110982
Styrene	U		0.00312	0.0143	1	05/15/2018 14:32	WG110982
1,1,1,2-Tetrachloroethane	U		0.000571	0.00286	1	05/15/2018 14:32	WG110982
1,1,2,2-Tetrachloroethane	U		0.000446	0.00286	1	05/15/2018 14:32	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00286	1	05/15/2018 14:32	WG110982
Tetrachloroethene	0.00276	<u>L</u>	0.000800	0.00286	1	05/15/2018 14:32	WG110982
Toluene	0.00144	<u>L</u>	0.00143	0.00571	1	05/15/2018 14:32	WG110982
1,2,3-Trichlorobenzene	U		0.000714	0.00286	1	05/15/2018 14:32	WG110982
1,2,4-Trichlorobenzene	U		0.00551	0.0143	1	05/15/2018 14:32	WG110982
1,1,1-Trichloroethane	U		0.000314	0.00286	1	05/15/2018 14:32	WG110982
1,1,2-Trichloroethane	U		0.00101	0.00286	1	05/15/2018 14:32	WG110982
Trichloroethene	0.000714	<u>L</u>	0.000457	0.00114	1	05/15/2018 14:32	WG110982
Trichlorofluoromethane	U		0.000571	0.00286	1	05/15/2018 14:32	WG110982
1,2,3-Trichloropropane	U		0.00583	0.0143	1	05/15/2018 14:32	WG110982
1,2,4-Trimethylbenzene	U		0.00133	0.00571	1	05/15/2018 14:32	WG110982
1,2,3-Trimethylbenzene	U		0.00131	0.00571	1	05/15/2018 14:32	WG110982
1,3,5-Trimethylbenzene	U		0.00123	0.00571	1	05/15/2018 14:32	WG110982
Vinyl acetate	U		0.00402	0.0143	1	05/15/2018 14:32	WG110982
Vinyl chloride	U		0.000780	0.00286	1	05/15/2018 14:32	WG110982
Xylenes, Total	U		0.00546	0.00743	1	05/15/2018 14:32	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 14:32	WG110982
(S) Toluene-d8	78.0	<u>J2</u>		80.0-120		05/16/2018 12:21	WG110982-1
(S) Dibromofluoromethane	97.0			74.0-131		05/15/2018 14:32	WG110982
(S) Dibromofluoromethane	92.0			74.0-131		05/16/2018 12:21	WG110982-1
(S) 4-Bromofluorobenzene	99.2			64.0-132		05/15/2018 14:32	WG110982
(S) 4-Bromofluorobenzene	105			64.0-132		05/16/2018 12:21	WG110982-1

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	84.3		1	05/15/2018 10:06	WG111244

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		0.0162	0.0297	1	05/15/2018 14:51	WG110982
Acrylonitrile	U		0.00225	0.0148	1	05/15/2018 14:51	WG110982
Benzene	U		0.000474	0.00119	1	05/15/2018 14:51	WG110982
Bromobenzene	U		0.00125	0.0148	1	05/15/2018 14:51	WG110982
Bromodichloromethane	U		0.000935	0.00297	1	05/15/2018 14:51	WG110982
Bromochloromethane	U		0.00134	0.00593	1	05/15/2018 14:51	WG110982
Bromoform	U		0.00709	0.0297	1	05/15/2018 14:51	WG110982
Bromomethane	U		0.00439	0.0148	1	05/15/2018 14:51	WG110982
n-Butylbenzene	U		0.00455	0.0148	1	05/15/2018 14:51	WG110982
sec-Butylbenzene	U		0.00300	0.0148	1	05/15/2018 14:51	WG110982
tert-Butylbenzene	U		0.00184	0.00593	1	05/15/2018 14:51	WG110982
Carbon disulfide	U		0.00482	0.0148	1	05/15/2018 14:51	WG110982
Carbon tetrachloride	U		0.00128	0.00593	1	05/15/2018 14:51	WG110982
Chlorobenzene	U		0.000680	0.00297	1	05/15/2018 14:51	WG110982
Chlorodibromomethane	U		0.000534	0.00297	1	05/15/2018 14:51	WG110982
Chloroethane	U		0.00128	0.00593	1	05/15/2018 14:51	WG110982
Chloroform	U		0.000492	0.00297	1	05/15/2018 14:51	WG110982
Chloromethane	U	J0	0.00165	0.0148	1	05/15/2018 14:51	WG110982
2-Chlorotoluene	U		0.00109	0.00297	1	05/15/2018 14:51	WG110982
4-Chlorotoluene	U		0.00134	0.00593	1	05/15/2018 14:51	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00605	0.0297	1	05/15/2018 14:51	WG110982
1,2-Dibromoethane	U		0.000623	0.00297	1	05/15/2018 14:51	WG110982
Dibromomethane	U		0.00119	0.00593	1	05/15/2018 14:51	WG110982
1,2-Dichlorobenzene	U		0.00172	0.00593	1	05/15/2018 14:51	WG110982
1,3-Dichlorobenzene	U		0.00202	0.00593	1	05/15/2018 14:51	WG110982
1,4-Dichlorobenzene	U		0.00234	0.00593	1	05/15/2018 14:51	WG110982
Dichlorodifluoromethane	U		0.000970	0.00297	1	05/15/2018 14:51	WG110982
1,1-Dichloroethane	U		0.000682	0.00297	1	05/15/2018 14:51	WG110982
1,2-Dichloroethane	U		0.000563	0.00297	1	05/15/2018 14:51	WG110982
1,1-Dichloroethene	0.00477		0.000593	0.00297	1	05/15/2018 14:51	WG110982
cis-1,2-Dichloroethene	1.50		0.000818	0.00297	1	05/15/2018 14:51	WG110982
trans-1,2-Dichloroethene	0.0221		0.00170	0.00593	1	05/15/2018 14:51	WG110982
1,2-Dichloropropane	U		0.00151	0.00593	1	05/15/2018 14:51	WG110982
1,1-Dichloropropene	U		0.000830	0.00297	1	05/15/2018 14:51	WG110982
1,3-Dichloropropane	U	J4	0.00208	0.00593	1	05/15/2018 14:51	WG110982
cis-1,3-Dichloropropene	U		0.000804	0.00297	1	05/15/2018 14:51	WG110982
trans-1,3-Dichloropropene	U		0.00181	0.00593	1	05/15/2018 14:51	WG110982
trans-1,4-Dichloro-2-butene	U		0.00166	0.00593	1	05/15/2018 14:51	WG110982
2,2-Dichloropropane	U		0.000941	0.00297	1	05/15/2018 14:51	WG110982
Di-isopropyl ether	U		0.000415	0.00119	1	05/15/2018 14:51	WG110982
Ethylbenzene	U		0.000629	0.00297	1	05/15/2018 14:51	WG110982
Hexachloro-1,3-butadiene	U		0.0151	0.0297	1	05/15/2018 14:51	WG110982
2-Hexanone	U		0.0119	0.0297	1	05/15/2018 14:51	WG110982
n-Hexane	U		0.0101	0.0474	8	05/16/2018 14:00	WG110982-1
Iodomethane	U		0.00718	0.0148	1	05/15/2018 14:51	WG110982
Isopropylbenzene	U		0.00102	0.00297	1	05/15/2018 14:51	WG110982
p-Isopropyltoluene	U		0.00276	0.00593	1	05/15/2018 14:51	WG110982
2-Butanone (MEK)	U		0.0148	0.0297	1	05/15/2018 14:51	WG110982
Methylene Chloride	U		0.00788	0.0297	1	05/15/2018 14:51	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0297	1	05/15/2018 14:51	WG110982

- 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	<u>JO J4</u>	0.000350	0.00119	1	05/15/2018 14:51	WG110982
Naphthalene	U		0.00370	0.0148	1	05/15/2018 14:51	WG110982
n-Propylbenzene	U		0.00140	0.00593	1	05/15/2018 14:51	WG110982
Styrene	U		0.00324	0.0148	1	05/15/2018 14:51	WG110982
1,1,1,2-Tetrachloroethane	U		0.000593	0.00297	1	05/15/2018 14:51	WG110982
1,1,2,2-Tetrachloroethane	U		0.000463	0.00297	1	05/15/2018 14:51	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000801	0.00297	1	05/15/2018 14:51	WG110982
Tetrachloroethene	6.27		0.00664	0.0237	8	05/16/2018 14:00	WG110982-1
Toluene	0.00185	<u>J</u>	0.00148	0.00593	1	05/15/2018 14:51	WG110982
1,2,3-Trichlorobenzene	U		0.000741	0.00297	1	05/15/2018 14:51	WG110982
1,2,4-Trichlorobenzene	U		0.00572	0.0148	1	05/15/2018 14:51	WG110982
1,1,1-Trichloroethane	U		0.000326	0.00297	1	05/15/2018 14:51	WG110982
1,1,2-Trichloroethane	U		0.00105	0.00297	1	05/15/2018 14:51	WG110982
Trichloroethene	1.11		0.000474	0.00119	1	05/15/2018 14:51	WG110982
Trichlorofluoromethane	U		0.000593	0.00297	1	05/15/2018 14:51	WG110982
1,2,3-Trichloropropane	U		0.00605	0.0148	1	05/15/2018 14:51	WG110982
1,2,4-Trimethylbenzene	U		0.00138	0.00593	1	05/15/2018 14:51	WG110982
1,2,3-Trimethylbenzene	U		0.00136	0.00593	1	05/15/2018 14:51	WG110982
1,3,5-Trimethylbenzene	U		0.00128	0.00593	1	05/15/2018 14:51	WG110982
Vinyl acetate	U		0.00418	0.0148	1	05/15/2018 14:51	WG110982
Vinyl chloride	0.0107		0.000810	0.00297	1	05/15/2018 14:51	WG110982
Xylenes, Total	U		0.00567	0.00771	1	05/15/2018 14:51	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 14:51	WG110982
(S) Toluene-d8	102			80.0-120		05/16/2018 14:00	WG110982-1
(S) Dibromofluoromethane	97.7			74.0-131		05/15/2018 14:51	WG110982
(S) Dibromofluoromethane	96.7			74.0-131		05/16/2018 14:00	WG110982-1
(S) 4-Bromofluorobenzene	96.8			64.0-132		05/15/2018 14:51	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 14:00	WG110982-1

- 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	91.8		1	05/15/2018 10:06	WG111244

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	0.0178	J	0.0149	0.0272	1	05/15/2018 15:11	WG110982
Acrylonitrile	U		0.00207	0.0136	1	05/15/2018 15:11	WG110982
Benzene	0.00134		0.000436	0.00109	1	05/15/2018 15:11	WG110982
Bromobenzene	U		0.00114	0.0136	1	05/15/2018 15:11	WG110982
Bromodichloromethane	U		0.000859	0.00272	1	05/15/2018 15:11	WG110982
Bromochloromethane	U		0.00123	0.00545	1	05/15/2018 15:11	WG110982
Bromoform	U		0.00652	0.0272	1	05/15/2018 15:11	WG110982
Bromomethane	U		0.00403	0.0136	1	05/15/2018 15:11	WG110982
n-Butylbenzene	U		0.00418	0.0136	1	05/15/2018 15:11	WG110982
sec-Butylbenzene	U		0.00276	0.0136	1	05/15/2018 15:11	WG110982
tert-Butylbenzene	U		0.00169	0.00545	1	05/15/2018 15:11	WG110982
Carbon disulfide	U		0.00442	0.0136	1	05/15/2018 15:11	WG110982
Carbon tetrachloride	U		0.00118	0.00545	1	05/15/2018 15:11	WG110982
Chlorobenzene	U		0.000624	0.00272	1	05/15/2018 15:11	WG110982
Chlorodibromomethane	U		0.000490	0.00272	1	05/15/2018 15:11	WG110982
Chloroethane	U		0.00118	0.00545	1	05/15/2018 15:11	WG110982
Chloroform	U		0.000452	0.00272	1	05/15/2018 15:11	WG110982
Chloromethane	U	JO	0.00151	0.0136	1	05/15/2018 15:11	WG110982
2-Chlorotoluene	U		0.00100	0.00272	1	05/15/2018 15:11	WG110982
4-Chlorotoluene	U		0.00123	0.00545	1	05/15/2018 15:11	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0272	1	05/15/2018 15:11	WG110982
1,2-Dibromoethane	U		0.000572	0.00272	1	05/15/2018 15:11	WG110982
Dibromomethane	U		0.00109	0.00545	1	05/15/2018 15:11	WG110982
1,2-Dichlorobenzene	U		0.00158	0.00545	1	05/15/2018 15:11	WG110982
1,3-Dichlorobenzene	U		0.00185	0.00545	1	05/15/2018 15:11	WG110982
1,4-Dichlorobenzene	U		0.00215	0.00545	1	05/15/2018 15:11	WG110982
Dichlorodifluoromethane	U		0.000891	0.00272	1	05/15/2018 15:11	WG110982
1,1-Dichloroethane	U		0.000626	0.00272	1	05/15/2018 15:11	WG110982
1,2-Dichloroethane	U		0.000518	0.00272	1	05/15/2018 15:11	WG110982
1,1-Dichloroethene	0.00255	J	0.000545	0.00272	1	05/15/2018 15:11	WG110982
cis-1,2-Dichloroethene	0.352		0.000752	0.00272	1	05/15/2018 15:11	WG110982
trans-1,2-Dichloroethene	0.00162	J	0.00156	0.00545	1	05/15/2018 15:11	WG110982
1,2-Dichloropropane	U		0.00138	0.00545	1	05/15/2018 15:11	WG110982
1,1-Dichloropropene	U		0.000763	0.00272	1	05/15/2018 15:11	WG110982
1,3-Dichloropropane	U	J4	0.00191	0.00545	1	05/15/2018 15:11	WG110982
cis-1,3-Dichloropropene	U		0.000739	0.00272	1	05/15/2018 15:11	WG110982
trans-1,3-Dichloropropene	U		0.00167	0.00545	1	05/15/2018 15:11	WG110982
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	05/15/2018 15:11	WG110982
2,2-Dichloropropane	U		0.000864	0.00272	1	05/15/2018 15:11	WG110982
Di-isopropyl ether	U		0.000381	0.00109	1	05/15/2018 15:11	WG110982
Ethylbenzene	0.000699	J	0.000577	0.00272	1	05/15/2018 15:11	WG110982
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	05/15/2018 15:11	WG110982
2-Hexanone	U		0.0109	0.0272	1	05/15/2018 15:11	WG110982
n-Hexane	U		0.00115	0.00545	1	05/16/2018 12:40	WG110982-1
Iodomethane	U		0.00659	0.0136	1	05/15/2018 15:11	WG110982
Isopropylbenzene	U		0.000940	0.00272	1	05/15/2018 15:11	WG110982
p-Isopropyltoluene	U		0.00254	0.00545	1	05/15/2018 15:11	WG110982
2-Butanone (MEK)	U		0.0136	0.0272	1	05/15/2018 15:11	WG110982
Methylene Chloride	U		0.00723	0.0272	1	05/15/2018 15:11	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	05/15/2018 15:11	WG110982

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	<u>JO J4</u>	0.000321	0.00109	1	05/15/2018 15:11	WG110982
Naphthalene	U		0.00340	0.0136	1	05/15/2018 15:11	WG110982
n-Propylbenzene	U		0.00129	0.00545	1	05/15/2018 15:11	WG110982
Styrene	U		0.00297	0.0136	1	05/15/2018 15:11	WG110982
1,1,1,2-Tetrachloroethane	U		0.000545	0.00272	1	05/15/2018 15:11	WG110982
1,1,2,2-Tetrachloroethane	U		0.000425	0.00272	1	05/15/2018 15:11	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000735	0.00272	1	05/15/2018 15:11	WG110982
Tetrachloroethene	0.111		0.000763	0.00272	1	05/16/2018 12:40	WG110982-1
Toluene	0.00595		0.00136	0.00545	1	05/15/2018 15:11	WG110982
1,2,3-Trichlorobenzene	U		0.000681	0.00272	1	05/15/2018 15:11	WG110982
1,2,4-Trichlorobenzene	U		0.00525	0.0136	1	05/15/2018 15:11	WG110982
1,1,1-Trichloroethane	U		0.000300	0.00272	1	05/15/2018 15:11	WG110982
1,1,2-Trichloroethane	U		0.000962	0.00272	1	05/15/2018 15:11	WG110982
Trichloroethene	0.0907		0.000436	0.00109	1	05/15/2018 15:11	WG110982
Trichlorofluoromethane	U		0.000545	0.00272	1	05/15/2018 15:11	WG110982
1,2,3-Trichloropropane	U		0.00556	0.0136	1	05/15/2018 15:11	WG110982
1,2,4-Trimethylbenzene	0.00138	<u>J</u>	0.00126	0.00545	1	05/15/2018 15:11	WG110982
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	05/15/2018 15:11	WG110982
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	05/15/2018 15:11	WG110982
Vinyl acetate	U		0.00384	0.0136	1	05/15/2018 15:11	WG110982
Vinyl chloride	U		0.000744	0.00272	1	05/15/2018 15:11	WG110982
Xylenes, Total	U		0.00521	0.00708	1	05/15/2018 15:11	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 15:11	WG110982
(S) Toluene-d8	100			80.0-120		05/16/2018 12:40	WG110982-1
(S) Dibromofluoromethane	96.8			74.0-131		05/15/2018 15:11	WG110982
(S) Dibromofluoromethane	89.5			74.0-131		05/16/2018 12:40	WG110982-1
(S) 4-Bromofluorobenzene	97.5			64.0-132		05/15/2018 15:11	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 12:40	WG110982-1

- 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	85.6		1	05/15/2018 10:06	WG111244

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	0.0208	<u>J</u>	0.0160	0.0292	1	05/15/2018 15:30	WG110982
Acrylonitrile	U		0.00222	0.0146	1	05/15/2018 15:30	WG110982
Benzene	U		0.000467	0.00117	1	05/15/2018 15:30	WG110982
Bromobenzene	U		0.00123	0.0146	1	05/15/2018 15:30	WG110982
Bromodichloromethane	U		0.000921	0.00292	1	05/15/2018 15:30	WG110982
Bromochloromethane	U		0.00132	0.00584	1	05/15/2018 15:30	WG110982
Bromoform	U		0.00699	0.0292	1	05/15/2018 15:30	WG110982
Bromomethane	U		0.00432	0.0146	1	05/15/2018 15:30	WG110982
n-Butylbenzene	U		0.00449	0.0146	1	05/15/2018 15:30	WG110982
sec-Butylbenzene	U		0.00296	0.0146	1	05/15/2018 15:30	WG110982
tert-Butylbenzene	U		0.00181	0.00584	1	05/15/2018 15:30	WG110982
Carbon disulfide	U		0.00474	0.0146	1	05/15/2018 15:30	WG110982
Carbon tetrachloride	U		0.00126	0.00584	1	05/15/2018 15:30	WG110982
Chlorobenzene	U		0.000669	0.00292	1	05/15/2018 15:30	WG110982
Chlorodibromomethane	U		0.000526	0.00292	1	05/15/2018 15:30	WG110982
Chloroethane	U		0.00126	0.00584	1	05/15/2018 15:30	WG110982
Chloroform	U		0.000485	0.00292	1	05/15/2018 15:30	WG110982
Chloromethane	U	<u>JO</u>	0.00162	0.0146	1	05/15/2018 15:30	WG110982
2-Chlorotoluene	U		0.00107	0.00292	1	05/15/2018 15:30	WG110982
4-Chlorotoluene	U		0.00132	0.00584	1	05/15/2018 15:30	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00596	0.0292	1	05/15/2018 15:30	WG110982
1,2-Dibromoethane	U		0.000613	0.00292	1	05/15/2018 15:30	WG110982
Dibromomethane	U		0.00117	0.00584	1	05/15/2018 15:30	WG110982
1,2-Dichlorobenzene	U		0.00169	0.00584	1	05/15/2018 15:30	WG110982
1,3-Dichlorobenzene	U		0.00199	0.00584	1	05/15/2018 15:30	WG110982
1,4-Dichlorobenzene	U		0.00230	0.00584	1	05/15/2018 15:30	WG110982
Dichlorodifluoromethane	U		0.000956	0.00292	1	05/15/2018 15:30	WG110982
1,1-Dichloroethane	U		0.000672	0.00292	1	05/15/2018 15:30	WG110982
1,2-Dichloroethane	U		0.000555	0.00292	1	05/15/2018 15:30	WG110982
1,1-Dichloroethene	U		0.000584	0.00292	1	05/15/2018 15:30	WG110982
cis-1,2-Dichloroethene	0.00460		0.000806	0.00292	1	05/15/2018 15:30	WG110982
trans-1,2-Dichloroethene	U		0.00167	0.00584	1	05/15/2018 15:30	WG110982
1,2-Dichloropropane	U		0.00148	0.00584	1	05/15/2018 15:30	WG110982
1,1-Dichloropropene	U		0.000818	0.00292	1	05/15/2018 15:30	WG110982
1,3-Dichloropropane	U	<u>J4</u>	0.00204	0.00584	1	05/15/2018 15:30	WG110982
cis-1,3-Dichloropropene	U		0.000792	0.00292	1	05/15/2018 15:30	WG110982
trans-1,3-Dichloropropene	U		0.00179	0.00584	1	05/15/2018 15:30	WG110982
trans-1,4-Dichloro-2-butene	U		0.00164	0.00584	1	05/15/2018 15:30	WG110982
2,2-Dichloropropane	U		0.000926	0.00292	1	05/15/2018 15:30	WG110982
Di-isopropyl ether	U		0.000409	0.00117	1	05/15/2018 15:30	WG110982
Ethylbenzene	U		0.000619	0.00292	1	05/15/2018 15:30	WG110982
Hexachloro-1,3-butadiene	U		0.0148	0.0292	1	05/15/2018 15:30	WG110982
2-Hexanone	U		0.0117	0.0292	1	05/15/2018 15:30	WG110982
n-Hexane	U		0.00124	0.00584	1	05/16/2018 13:01	WG110982-1
Iodomethane	U		0.00707	0.0146	1	05/15/2018 15:30	WG110982
Isopropylbenzene	U		0.00101	0.00292	1	05/15/2018 15:30	WG110982
p-Isopropyltoluene	U		0.00272	0.00584	1	05/15/2018 15:30	WG110982
2-Butanone (MEK)	U		0.0146	0.0292	1	05/15/2018 15:30	WG110982
Methylene Chloride	U		0.00776	0.0292	1	05/15/2018 15:30	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0292	1	05/15/2018 15:30	WG110982

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	JO J4	0.000345	0.00117	1	05/15/2018 15:30	WG110982
Naphthalene	U		0.00364	0.0146	1	05/15/2018 15:30	WG110982
n-Propylbenzene	U		0.00138	0.00584	1	05/15/2018 15:30	WG110982
Styrene	U		0.00319	0.0146	1	05/15/2018 15:30	WG110982
1,1,1,2-Tetrachloroethane	U		0.000584	0.00292	1	05/15/2018 15:30	WG110982
1,1,2,2-Tetrachloroethane	U		0.000456	0.00292	1	05/15/2018 15:30	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000789	0.00292	1	05/15/2018 15:30	WG110982
Tetrachloroethene	0.00208	U	0.000818	0.00292	1	05/16/2018 13:01	WG110982-1
Toluene	0.00221	U	0.00146	0.00584	1	05/15/2018 15:30	WG110982
1,2,3-Trichlorobenzene	U		0.000730	0.00292	1	05/15/2018 15:30	WG110982
1,2,4-Trichlorobenzene	U		0.00563	0.0146	1	05/15/2018 15:30	WG110982
1,1,1-Trichloroethane	U		0.000321	0.00292	1	05/15/2018 15:30	WG110982
1,1,2-Trichloroethane	U		0.00103	0.00292	1	05/15/2018 15:30	WG110982
Trichloroethene	0.00150		0.000467	0.00117	1	05/15/2018 15:30	WG110982
Trichlorofluoromethane	U		0.000584	0.00292	1	05/15/2018 15:30	WG110982
1,2,3-Trichloropropane	U		0.00596	0.0146	1	05/15/2018 15:30	WG110982
1,2,4-Trimethylbenzene	U		0.00136	0.00584	1	05/15/2018 15:30	WG110982
1,2,3-Trimethylbenzene	U		0.00134	0.00584	1	05/15/2018 15:30	WG110982
1,3,5-Trimethylbenzene	U		0.00126	0.00584	1	05/15/2018 15:30	WG110982
Vinyl acetate	U		0.00411	0.0146	1	05/15/2018 15:30	WG110982
Vinyl chloride	U		0.000798	0.00292	1	05/15/2018 15:30	WG110982
Xylenes, Total	U		0.00558	0.00759	1	05/15/2018 15:30	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 15:30	WG110982
(S) Toluene-d8	102			80.0-120		05/16/2018 13:01	WG110982-1
(S) Dibromofluoromethane	97.2			74.0-131		05/15/2018 15:30	WG110982
(S) Dibromofluoromethane	91.7			74.0-131		05/16/2018 13:01	WG110982-1
(S) 4-Bromofluorobenzene	99.3			64.0-132		05/15/2018 15:30	WG110982
(S) 4-Bromofluorobenzene	105			64.0-132		05/16/2018 13:01	WG110982-1

- 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	85.0		1	05/15/2018 10:06	WG111244

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	0.0176	J	0.0161	0.0294	1	05/15/2018 15:50	WG110982
Acrylonitrile	U		0.00224	0.0147	1	05/15/2018 15:50	WG110982
Benzene	U		0.000471	0.00118	1	05/15/2018 15:50	WG110982
Bromobenzene	U		0.00124	0.0147	1	05/15/2018 15:50	WG110982
Bromodichloromethane	U		0.000927	0.00294	1	05/15/2018 15:50	WG110982
Bromochloromethane	U		0.00133	0.00588	1	05/15/2018 15:50	WG110982
Bromoform	U		0.00704	0.0294	1	05/15/2018 15:50	WG110982
Bromomethane	U		0.00435	0.0147	1	05/15/2018 15:50	WG110982
n-Butylbenzene	U		0.00452	0.0147	1	05/15/2018 15:50	WG110982
sec-Butylbenzene	U		0.00298	0.0147	1	05/15/2018 15:50	WG110982
tert-Butylbenzene	U		0.00182	0.00588	1	05/15/2018 15:50	WG110982
Carbon disulfide	U		0.00478	0.0147	1	05/15/2018 15:50	WG110982
Carbon tetrachloride	U		0.00127	0.00588	1	05/15/2018 15:50	WG110982
Chlorobenzene	U		0.000674	0.00294	1	05/15/2018 15:50	WG110982
Chlorodibromomethane	U		0.000530	0.00294	1	05/15/2018 15:50	WG110982
Chloroethane	U		0.00127	0.00588	1	05/15/2018 15:50	WG110982
Chloroform	U		0.000488	0.00294	1	05/15/2018 15:50	WG110982
Chloromethane	U	JO	0.00164	0.0147	1	05/15/2018 15:50	WG110982
2-Chlorotoluene	U		0.00108	0.00294	1	05/15/2018 15:50	WG110982
4-Chlorotoluene	U		0.00133	0.00588	1	05/15/2018 15:50	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00600	0.0294	1	05/15/2018 15:50	WG110982
1,2-Dibromoethane	U		0.000618	0.00294	1	05/15/2018 15:50	WG110982
Dibromomethane	U		0.00118	0.00588	1	05/15/2018 15:50	WG110982
1,2-Dichlorobenzene	U		0.00171	0.00588	1	05/15/2018 15:50	WG110982
1,3-Dichlorobenzene	U		0.00200	0.00588	1	05/15/2018 15:50	WG110982
1,4-Dichlorobenzene	U		0.00232	0.00588	1	05/15/2018 15:50	WG110982
Dichlorodifluoromethane	U		0.000963	0.00294	1	05/15/2018 15:50	WG110982
1,1-Dichloroethane	U		0.000677	0.00294	1	05/15/2018 15:50	WG110982
1,2-Dichloroethane	U		0.000559	0.00294	1	05/15/2018 15:50	WG110982
1,1-Dichloroethene	U		0.000588	0.00294	1	05/15/2018 15:50	WG110982
cis-1,2-Dichloroethene	0.00432		0.000812	0.00294	1	05/15/2018 15:50	WG110982
trans-1,2-Dichloroethene	U		0.00168	0.00588	1	05/15/2018 15:50	WG110982
1,2-Dichloropropane	U		0.00149	0.00588	1	05/15/2018 15:50	WG110982
1,1-Dichloropropene	U		0.000824	0.00294	1	05/15/2018 15:50	WG110982
1,3-Dichloropropane	U	J4	0.00206	0.00588	1	05/15/2018 15:50	WG110982
cis-1,3-Dichloropropene	U		0.000798	0.00294	1	05/15/2018 15:50	WG110982
trans-1,3-Dichloropropene	U		0.00180	0.00588	1	05/15/2018 15:50	WG110982
trans-1,4-Dichloro-2-butene	U		0.00165	0.00588	1	05/15/2018 15:50	WG110982
2,2-Dichloropropane	U		0.000933	0.00294	1	05/15/2018 15:50	WG110982
Di-isopropyl ether	U		0.000412	0.00118	1	05/15/2018 15:50	WG110982
Ethylbenzene	U		0.000624	0.00294	1	05/15/2018 15:50	WG110982
Hexachloro-1,3-butadiene	U		0.0149	0.0294	1	05/15/2018 15:50	WG110982
2-Hexanone	U		0.0118	0.0294	1	05/15/2018 15:50	WG110982
n-Hexane	U		0.00125	0.00588	1	05/16/2018 13:20	WG110982-1
Iodomethane	U		0.00712	0.0147	1	05/15/2018 15:50	WG110982
Isopropylbenzene	U		0.00102	0.00294	1	05/15/2018 15:50	WG110982
p-Isopropyltoluene	U		0.00274	0.00588	1	05/15/2018 15:50	WG110982
2-Butanone (MEK)	U		0.0147	0.0294	1	05/15/2018 15:50	WG110982
Methylene Chloride	U		0.00781	0.0294	1	05/15/2018 15:50	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0294	1	05/15/2018 15:50	WG110982

- 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	<u>JO J4</u>	0.000347	0.00118	1	05/15/2018 15:50	WG110982
Naphthalene	U		0.00367	0.0147	1	05/15/2018 15:50	WG110982
n-Propylbenzene	U		0.00139	0.00588	1	05/15/2018 15:50	WG110982
Styrene	U		0.00321	0.0147	1	05/15/2018 15:50	WG110982
1,1,1,2-Tetrachloroethane	U		0.000588	0.00294	1	05/15/2018 15:50	WG110982
1,1,2,2-Tetrachloroethane	U		0.000459	0.00294	1	05/15/2018 15:50	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000794	0.00294	1	05/15/2018 15:50	WG110982
Tetrachloroethene	U		0.000824	0.00294	1	05/16/2018 13:20	WG110982-1
Toluene	0.00240	<u>J</u>	0.00147	0.00588	1	05/15/2018 15:50	WG110982
1,2,3-Trichlorobenzene	U		0.000736	0.00294	1	05/15/2018 15:50	WG110982
1,2,4-Trichlorobenzene	U		0.00567	0.0147	1	05/15/2018 15:50	WG110982
1,1,1-Trichloroethane	U		0.000324	0.00294	1	05/15/2018 15:50	WG110982
1,1,2-Trichloroethane	U		0.00104	0.00294	1	05/15/2018 15:50	WG110982
Trichloroethene	0.00151		0.000471	0.00118	1	05/15/2018 15:50	WG110982
Trichlorofluoromethane	U		0.000588	0.00294	1	05/15/2018 15:50	WG110982
1,2,3-Trichloropropane	U		0.00600	0.0147	1	05/15/2018 15:50	WG110982
1,2,4-Trimethylbenzene	U		0.00137	0.00588	1	05/15/2018 15:50	WG110982
1,2,3-Trimethylbenzene	U		0.00135	0.00588	1	05/15/2018 15:50	WG110982
1,3,5-Trimethylbenzene	U		0.00127	0.00588	1	05/15/2018 15:50	WG110982
Vinyl acetate	U		0.00414	0.0147	1	05/15/2018 15:50	WG110982
Vinyl chloride	U		0.000804	0.00294	1	05/15/2018 15:50	WG110982
Xylenes, Total	U		0.00563	0.00765	1	05/15/2018 15:50	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 15:50	WG110982
(S) Toluene-d8	100			80.0-120		05/16/2018 13:20	WG110982-1
(S) Dibromofluoromethane	96.5			74.0-131		05/15/2018 15:50	WG110982
(S) Dibromofluoromethane	90.6			74.0-131		05/16/2018 13:20	WG110982-1
(S) 4-Bromofluorobenzene	101			64.0-132		05/15/2018 15:50	WG110982
(S) 4-Bromofluorobenzene	106			64.0-132		05/16/2018 13:20	WG110982-1

- 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	83.1		1	05/15/2018 10:06	WG111244

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		0.0165	0.0301	1	05/15/2018 16:09	WG110982
Acrylonitrile	U		0.00229	0.0150	1	05/15/2018 16:09	WG110982
Benzene	U		0.000481	0.00120	1	05/15/2018 16:09	WG110982
Bromobenzene	U		0.00126	0.0150	1	05/15/2018 16:09	WG110982
Bromodichloromethane	U		0.000948	0.00301	1	05/15/2018 16:09	WG110982
Bromochloromethane	U		0.00136	0.00601	1	05/15/2018 16:09	WG110982
Bromoform	U		0.00719	0.0301	1	05/15/2018 16:09	WG110982
Bromomethane	U		0.00445	0.0150	1	05/15/2018 16:09	WG110982
n-Butylbenzene	U		0.00462	0.0150	1	05/15/2018 16:09	WG110982
sec-Butylbenzene	U		0.00304	0.0150	1	05/15/2018 16:09	WG110982
tert-Butylbenzene	U		0.00186	0.00601	1	05/15/2018 16:09	WG110982
Carbon disulfide	U		0.00488	0.0150	1	05/15/2018 16:09	WG110982
Carbon tetrachloride	U		0.00130	0.00601	1	05/15/2018 16:09	WG110982
Chlorobenzene	U		0.000689	0.00301	1	05/15/2018 16:09	WG110982
Chlorodibromomethane	U		0.000541	0.00301	1	05/15/2018 16:09	WG110982
Chloroethane	U		0.00130	0.00601	1	05/15/2018 16:09	WG110982
Chloroform	U		0.000499	0.00301	1	05/15/2018 16:09	WG110982
Chloromethane	U	J0	0.00167	0.0150	1	05/15/2018 16:09	WG110982
2-Chlorotoluene	U		0.00111	0.00301	1	05/15/2018 16:09	WG110982
4-Chlorotoluene	U		0.00136	0.00601	1	05/15/2018 16:09	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00614	0.0301	1	05/15/2018 16:09	WG110982
1,2-Dibromoethane	U		0.000632	0.00301	1	05/15/2018 16:09	WG110982
Dibromomethane	U		0.00120	0.00601	1	05/15/2018 16:09	WG110982
1,2-Dichlorobenzene	U		0.00174	0.00601	1	05/15/2018 16:09	WG110982
1,3-Dichlorobenzene	U		0.00205	0.00601	1	05/15/2018 16:09	WG110982
1,4-Dichlorobenzene	U		0.00237	0.00601	1	05/15/2018 16:09	WG110982
Dichlorodifluoromethane	U		0.000984	0.00301	1	05/15/2018 16:09	WG110982
1,1-Dichloroethane	U		0.000692	0.00301	1	05/15/2018 16:09	WG110982
1,2-Dichloroethane	U		0.000571	0.00301	1	05/15/2018 16:09	WG110982
1,1-Dichloroethene	U		0.000601	0.00301	1	05/15/2018 16:09	WG110982
cis-1,2-Dichloroethene	0.00506		0.000830	0.00301	1	05/15/2018 16:09	WG110982
trans-1,2-Dichloroethene	U		0.00172	0.00601	1	05/15/2018 16:09	WG110982
1,2-Dichloropropane	U		0.00153	0.00601	1	05/15/2018 16:09	WG110982
1,1-Dichloropropene	U		0.000842	0.00301	1	05/15/2018 16:09	WG110982
1,3-Dichloropropane	U	J4	0.00211	0.00601	1	05/15/2018 16:09	WG110982
cis-1,3-Dichloropropene	U		0.000816	0.00301	1	05/15/2018 16:09	WG110982
trans-1,3-Dichloropropene	U		0.00184	0.00601	1	05/15/2018 16:09	WG110982
trans-1,4-Dichloro-2-butene	U		0.00168	0.00601	1	05/15/2018 16:09	WG110982
2,2-Dichloropropane	U		0.000954	0.00301	1	05/15/2018 16:09	WG110982
Di-isopropyl ether	U		0.000421	0.00120	1	05/15/2018 16:09	WG110982
Ethylbenzene	U		0.000638	0.00301	1	05/15/2018 16:09	WG110982
Hexachloro-1,3-butadiene	U		0.0153	0.0301	1	05/15/2018 16:09	WG110982
2-Hexanone	U		0.0120	0.0301	1	05/15/2018 16:09	WG110982
n-Hexane	U	J4	0.00128	0.00601	1	05/15/2018 16:09	WG110982
Iodomethane	U		0.00728	0.0150	1	05/15/2018 16:09	WG110982
Isopropylbenzene	U		0.00104	0.00301	1	05/15/2018 16:09	WG110982
p-Isopropyltoluene	U		0.00280	0.00601	1	05/15/2018 16:09	WG110982
2-Butanone (MEK)	U		0.0150	0.0301	1	05/15/2018 16:09	WG110982
Methylene Chloride	U		0.00799	0.0301	1	05/15/2018 16:09	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0301	1	05/15/2018 16:09	WG110982

- 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	<u>JO J4</u>	0.000355	0.00120	1	05/15/2018 16:09	WG110982
Naphthalene	U		0.00375	0.0150	1	05/15/2018 16:09	WG110982
n-Propylbenzene	U		0.00142	0.00601	1	05/15/2018 16:09	WG110982
Styrene	U		0.00328	0.0150	1	05/15/2018 16:09	WG110982
1,1,1,2-Tetrachloroethane	U		0.000601	0.00301	1	05/15/2018 16:09	WG110982
1,1,2,2-Tetrachloroethane	U		0.000469	0.00301	1	05/15/2018 16:09	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000812	0.00301	1	05/15/2018 16:09	WG110982
Tetrachloroethene	U		0.000842	0.00301	1	05/16/2018 13:40	WG110982-1
Toluene	U		0.00150	0.00601	1	05/15/2018 16:09	WG110982
1,2,3-Trichlorobenzene	U		0.000752	0.00301	1	05/15/2018 16:09	WG110982
1,2,4-Trichlorobenzene	U		0.00580	0.0150	1	05/15/2018 16:09	WG110982
1,1,1-Trichloroethane	U		0.000331	0.00301	1	05/15/2018 16:09	WG110982
1,1,2-Trichloroethane	U		0.00106	0.00301	1	05/15/2018 16:09	WG110982
Trichloroethene	0.00153		0.000481	0.00120	1	05/15/2018 16:09	WG110982
Trichlorofluoromethane	U		0.000601	0.00301	1	05/15/2018 16:09	WG110982
1,2,3-Trichloropropane	U		0.00614	0.0150	1	05/15/2018 16:09	WG110982
1,2,4-Trimethylbenzene	U		0.00140	0.00601	1	05/15/2018 16:09	WG110982
1,2,3-Trimethylbenzene	U		0.00138	0.00601	1	05/15/2018 16:09	WG110982
1,3,5-Trimethylbenzene	U		0.00130	0.00601	1	05/15/2018 16:09	WG110982
Vinyl acetate	U		0.00423	0.0150	1	05/15/2018 16:09	WG110982
Vinyl chloride	U		0.000822	0.00301	1	05/15/2018 16:09	WG110982
Xylenes, Total	U		0.00575	0.00782	1	05/15/2018 16:09	WG110982
(S) Toluene-d8	112			80.0-120		05/15/2018 16:09	WG110982
(S) Toluene-d8	105			80.0-120		05/16/2018 13:40	WG110982-1
(S) Dibromofluoromethane	97.1			74.0-131		05/15/2018 16:09	WG110982
(S) Dibromofluoromethane	91.6			74.0-131		05/16/2018 13:40	WG110982-1
(S) 4-Bromofluorobenzene	99.5			64.0-132		05/15/2018 16:09	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 13:40	WG110982-1

- 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	88.2		1	05/15/2018 10:06	WG111244

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		0.0155	0.0283	1	05/13/2018 22:01	WG110914
Acrylonitrile	U		0.00215	0.0142	1	05/13/2018 22:01	WG110914
Benzene	U		0.000454	0.00113	1	05/13/2018 22:01	WG110914
Bromobenzene	U		0.00119	0.0142	1	05/13/2018 22:01	WG110914
Bromodichloromethane	U		0.000894	0.00283	1	05/13/2018 22:01	WG110914
Bromochloromethane	U		0.00128	0.00567	1	05/13/2018 22:01	WG110914
Bromoform	U	JO	0.00678	0.0283	1	05/13/2018 22:01	WG110914
Bromomethane	U		0.00420	0.0142	1	05/13/2018 22:01	WG110914
n-Butylbenzene	U		0.00435	0.0142	1	05/13/2018 22:01	WG110914
sec-Butylbenzene	U		0.00287	0.0142	1	05/13/2018 22:01	WG110914
tert-Butylbenzene	U		0.00176	0.00567	1	05/13/2018 22:01	WG110914
Carbon disulfide	U		0.00460	0.0142	1	05/13/2018 22:01	WG110914
Carbon tetrachloride	U		0.00122	0.00567	1	05/13/2018 22:01	WG110914
Chlorobenzene	U		0.000650	0.00283	1	05/13/2018 22:01	WG110914
Chlorodibromomethane	U		0.000510	0.00283	1	05/13/2018 22:01	WG110914
Chloroethane	U		0.00122	0.00567	1	05/13/2018 22:01	WG110914
Chloroform	U		0.000471	0.00283	1	05/13/2018 22:01	WG110914
Chloromethane	U	JO	0.00158	0.0142	1	05/13/2018 22:01	WG110914
2-Chlorotoluene	U		0.00104	0.00283	1	05/13/2018 22:01	WG110914
4-Chlorotoluene	U		0.00128	0.00567	1	05/13/2018 22:01	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00578	0.0283	1	05/13/2018 22:01	WG110914
1,2-Dibromoethane	U		0.000595	0.00283	1	05/13/2018 22:01	WG110914
Dibromomethane	U		0.00113	0.00567	1	05/13/2018 22:01	WG110914
1,2-Dichlorobenzene	U		0.00164	0.00567	1	05/13/2018 22:01	WG110914
1,3-Dichlorobenzene	U		0.00193	0.00567	1	05/13/2018 22:01	WG110914
1,4-Dichlorobenzene	U		0.00223	0.00567	1	05/13/2018 22:01	WG110914
Dichlorodifluoromethane	U	J3	0.000928	0.00283	1	05/13/2018 22:01	WG110914
1,1-Dichloroethane	U		0.000652	0.00283	1	05/13/2018 22:01	WG110914
1,2-Dichloroethane	U		0.000539	0.00283	1	05/13/2018 22:01	WG110914
1,1-Dichloroethene	U		0.000567	0.00283	1	05/13/2018 22:01	WG110914
cis-1,2-Dichloroethene	0.0128		0.000782	0.00283	1	05/13/2018 22:01	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00567	1	05/13/2018 22:01	WG110914
1,2-Dichloropropane	U		0.00144	0.00567	1	05/13/2018 22:01	WG110914
1,1-Dichloropropene	U		0.000794	0.00283	1	05/13/2018 22:01	WG110914
1,3-Dichloropropane	U		0.00198	0.00567	1	05/13/2018 22:01	WG110914
cis-1,3-Dichloropropene	U		0.000769	0.00283	1	05/13/2018 22:01	WG110914
trans-1,3-Dichloropropene	U		0.00173	0.00567	1	05/13/2018 22:01	WG110914
trans-1,4-Dichloro-2-butene	U		0.00159	0.00567	1	05/13/2018 22:01	WG110914
2,2-Dichloropropane	U		0.000899	0.00283	1	05/13/2018 22:01	WG110914
Di-isopropyl ether	U		0.000397	0.00113	1	05/13/2018 22:01	WG110914
Ethylbenzene	U		0.000601	0.00283	1	05/13/2018 22:01	WG110914
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	05/13/2018 22:01	WG110914
2-Hexanone	U		0.0113	0.0283	1	05/13/2018 22:01	WG110914
n-Hexane	0.00297	J J4	0.00120	0.00567	1	05/13/2018 22:01	WG110914
Iodomethane	U		0.00686	0.0142	1	05/13/2018 22:01	WG110914
Isopropylbenzene	U		0.000979	0.00283	1	05/13/2018 22:01	WG110914
p-Isopropyltoluene	U		0.00264	0.00567	1	05/13/2018 22:01	WG110914
2-Butanone (MEK)	U		0.0142	0.0283	1	05/13/2018 22:01	WG110914
Methylene Chloride	U		0.00753	0.0283	1	05/13/2018 22:01	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	05/13/2018 22:01	WG110914

- 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	<u>JO J4</u>	0.000335	0.00113	1	05/13/2018 22:01	WG1110914
Naphthalene	U		0.00354	0.0142	1	05/13/2018 22:01	WG1110914
n-Propylbenzene	U	<u>J4</u>	0.00134	0.00567	1	05/13/2018 22:01	WG1110914
Styrene	U		0.00310	0.0142	1	05/13/2018 22:01	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000567	0.00283	1	05/13/2018 22:01	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000442	0.00283	1	05/13/2018 22:01	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000765	0.00283	1	05/13/2018 22:01	WG1110914
Tetrachloroethene	0.0113		0.000794	0.00283	1	05/13/2018 22:01	WG1110914
Toluene	0.00144	<u>J</u>	0.00142	0.00567	1	05/13/2018 22:01	WG1110914
1,2,3-Trichlorobenzene	U		0.000709	0.00283	1	05/13/2018 22:01	WG1110914
1,2,4-Trichlorobenzene	U		0.00547	0.0142	1	05/13/2018 22:01	WG1110914
1,1,1-Trichloroethane	U		0.000312	0.00283	1	05/13/2018 22:01	WG1110914
1,1,2-Trichloroethane	U		0.00100	0.00283	1	05/13/2018 22:01	WG1110914
Trichloroethene	0.00478		0.000454	0.00113	1	05/13/2018 22:01	WG1110914
Trichlorofluoromethane	U		0.000567	0.00283	1	05/13/2018 22:01	WG1110914
1,2,3-Trichloropropane	U		0.00578	0.0142	1	05/13/2018 22:01	WG1110914
1,2,4-Trimethylbenzene	U		0.00132	0.00567	1	05/13/2018 22:01	WG1110914
1,2,3-Trimethylbenzene	U		0.00130	0.00567	1	05/13/2018 22:01	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00567	1	05/13/2018 22:01	WG1110914
Vinyl acetate	U		0.00399	0.0142	1	05/13/2018 22:01	WG1110914
Vinyl chloride	U		0.000774	0.00283	1	05/13/2018 22:01	WG1110914
Xylenes, Total	U		0.00542	0.00737	1	05/13/2018 22:01	WG1110914
(S) Toluene-d8	114			80.0-120		05/13/2018 22:01	WG1110914
(S) Dibromofluoromethane	94.9			74.0-131		05/13/2018 22:01	WG1110914
(S) 4-Bromofluorobenzene	97.8			64.0-132		05/13/2018 22:01	WG1110914

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



Method Blank (MB)

(MB) R3310207-1 05/15/18 13:05

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

1 Cp

2 Tc

3 Ss

L993164-01 Original Sample (OS) • Duplicate (DUP)

(OS) L993164-01 05/15/18 13:05 • (DUP) R3310207-3 05/15/18 13:05

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	94.4	93.3	1	1.21		5

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3310207-2 05/15/18 13:05

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3310198-1 05/15/18 10:06

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L993478-03 Original Sample (OS) • Duplicate (DUP)

(OS) L993478-03 05/15/18 10:06 • (DUP) R3310198-3 05/15/18 10:06

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	82.1	83.1	1	1.22		5

Laboratory Control Sample (LCS)

(LCS) R3310198-2 05/15/18 10:06

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.1	100	85.0-115	



Method Blank (MB)

(MB) R3309627-3 05/13/18 18:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3309627-3 05/13/18 18:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	116			80.0-120
(S) Dibromofluoromethane	86.0			74.0-131
(S) 4-Bromofluorobenzene	99.9			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) R3309627-1 05/13/18 17:19 • (LCSD) R3309627-2 05/13/18 17:39

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	0.625	0.548	0.585	87.6	93.6	25.3-178			6.58	22.9
Acrylonitrile	0.625	0.578	0.608	92.5	97.3	57.8-143			5.11	20
Benzene	0.125	0.109	0.107	87.4	85.3	72.6-120			2.46	20
Bromobenzene	0.125	0.119	0.119	95.3	95.2	80.3-115			0.0470	20
Bromodichloromethane	0.125	0.114	0.115	91.1	91.9	75.3-119			0.777	20
Bromochloromethane	0.125	0.116	0.118	92.7	94.5	79.7-123			1.93	20
Bromoform	0.125	0.101	0.104	80.7	83.6	69.1-135			3.48	20
Bromomethane	0.125	0.140	0.136	112	109	23.0-191			2.64	20
n-Butylbenzene	0.125	0.116	0.113	93.0	90.1	74.2-134			3.15	20
sec-Butylbenzene	0.125	0.108	0.103	86.1	82.4	77.8-129			4.44	20
tert-Butylbenzene	0.125	0.104	0.0999	83.0	79.9	77.2-129			3.76	20
Carbon disulfide	0.125	0.110	0.100	88.4	80.3	49.9-136			9.56	20
Carbon tetrachloride	0.125	0.111	0.0998	89.2	79.8	69.4-129			11.1	20
Chlorobenzene	0.125	0.119	0.118	95.5	94.2	78.9-122			1.37	20
Chlorodibromomethane	0.125	0.115	0.117	91.7	93.9	76.4-126			2.36	20
Chloroethane	0.125	0.119	0.111	94.8	88.7	47.2-147			6.66	20
Chloroform	0.125	0.114	0.113	91.5	90.4	73.3-122			1.17	20
Chloromethane	0.125	0.0962	0.0893	76.9	71.4	53.1-135			7.39	20
2-Chlorotoluene	0.125	0.109	0.107	87.2	85.8	74.6-127			1.62	20
4-Chlorotoluene	0.125	0.115	0.114	92.1	91.3	79.5-123			0.891	20
1,2-Dibromo-3-Chloropropane	0.125	0.103	0.107	82.2	85.6	64.9-131			3.95	20
1,2-Dibromoethane	0.125	0.121	0.124	97.2	99.0	78.7-123			1.81	20
Dibromomethane	0.125	0.118	0.121	94.6	97.1	78.5-117			2.62	20
1,2-Dichlorobenzene	0.125	0.122	0.123	97.4	98.3	83.6-119			0.898	20
1,3-Dichlorobenzene	0.125	0.122	0.121	97.3	96.8	75.9-129			0.510	20
1,4-Dichlorobenzene	0.125	0.119	0.119	95.2	95.2	81.0-115			0.0319	20
trans-1,4-Dichloro-2-butene	0.125	0.102	0.103	81.6	82.7	58.4-125			1.41	20
Dichlorodifluoromethane	0.125	0.129	0.103	104	82.7	50.9-139		<u>J3</u>	22.4	20
1,1-Dichloroethane	0.125	0.119	0.116	95.1	93.1	71.7-125			2.21	20
1,2-Dichloroethane	0.125	0.119	0.120	94.8	96.3	67.2-121			1.51	20
1,1-Dichloroethene	0.125	0.111	0.0989	88.7	79.1	60.6-133			11.5	20
cis-1,2-Dichloroethene	0.125	0.108	0.108	86.8	86.0	76.1-121			0.825	20
trans-1,2-Dichloroethene	0.125	0.114	0.109	91.6	87.1	70.7-124			4.98	20
1,2-Dichloropropane	0.125	0.116	0.116	93.1	92.4	76.9-123			0.743	20
1,1-Dichloropropene	0.125	0.111	0.100	88.6	80.3	71.2-126			9.91	20
1,3-Dichloropropane	0.125	0.139	0.141	111	112	80.3-114			1.38	20
cis-1,3-Dichloropropene	0.125	0.111	0.112	89.0	89.9	77.3-123			0.974	20
trans-1,3-Dichloropropene	0.125	0.106	0.108	85.0	86.1	73.0-127			1.21	20
2,2-Dichloropropane	0.125	0.0972	0.0891	77.7	71.3	61.9-132			8.64	20
Di-isopropyl ether	0.125	0.106	0.107	84.8	85.4	67.2-131			0.700	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) R3309627-1 05/13/18 17:19 • (LCSD) R3309627-2 05/13/18 17:39

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	0.125	0.109	0.105	87.2	83.9	78.6-124			3.86	20
Hexachloro-1,3-butadiene	0.125	0.118	0.117	94.6	93.3	69.2-136			1.35	20
2-Hexanone	0.625	0.621	0.644	99.3	103	62.7-150			3.65	20
n-Hexane	0.125	0.169	0.152	135	122	59.9-125	J4		10.5	20
Iodomethane	0.625	0.548	0.538	87.6	86.0	63.3-136			1.82	20
Isopropylbenzene	0.125	0.105	0.0993	84.3	79.4	79.4-126			5.89	20
p-Isopropyltoluene	0.125	0.113	0.109	90.2	87.4	75.4-132			3.08	20
2-Butanone (MEK)	0.625	0.630	0.638	101	102	44.5-154			1.16	21.3
Methylene Chloride	0.125	0.105	0.105	84.0	83.9	68.2-119			0.200	20
4-Methyl-2-pentanone (MIBK)	0.625	0.586	0.609	93.8	97.4	61.1-138			3.71	20
Methyl tert-butyl ether	0.125	0.0868	0.0894	69.4	71.5	70.2-122	J4		2.96	20
Naphthalene	0.125	0.114	0.116	90.8	93.2	69.9-132			2.56	20
n-Propylbenzene	0.125	0.0949	0.0939	75.9	75.1	80.2-124	J4	J4	1.07	20
Styrene	0.125	0.105	0.105	83.6	83.8	79.4-124			0.231	20
1,1,1,2-Tetrachloroethane	0.125	0.114	0.115	91.4	91.9	76.7-127			0.526	20
1,1,2,2-Tetrachloroethane	0.125	0.120	0.125	95.6	99.7	78.8-124			4.19	20
Tetrachloroethene	0.125	0.124	0.114	99.0	91.1	71.1-133			8.28	20
Toluene	0.125	0.119	0.115	94.8	91.8	76.7-116			3.18	20
1,1,2-Trichlorotrifluoroethane	0.125	0.137	0.116	110	92.6	62.6-138			17.2	20
1,2,3-Trichlorobenzene	0.125	0.114	0.116	91.2	92.9	72.5-137			1.79	20
1,2,4-Trichlorobenzene	0.125	0.120	0.120	96.0	96.2	74.0-137			0.237	20
1,1,1-Trichloroethane	0.125	0.111	0.101	88.4	81.2	69.9-127			8.55	20
1,1,2-Trichloroethane	0.125	0.125	0.128	100	102	81.9-119			2.23	20
Trichloroethene	0.125	0.102	0.0966	81.6	77.2	77.2-122			5.47	20
Trichlorofluoromethane	0.125	0.143	0.121	114	97.2	51.5-151			16.1	20
1,2,3-Trichloropropane	0.125	0.117	0.121	93.7	96.7	74.0-124			3.26	20
1,2,3-Trimethylbenzene	0.125	0.117	0.117	93.3	93.2	79.4-118			0.102	20
1,2,4-Trimethylbenzene	0.125	0.101	0.0990	80.6	79.2	77.1-124			1.66	20
1,3,5-Trimethylbenzene	0.125	0.110	0.108	87.6	86.1	79.0-125			1.71	20
Vinyl acetate	0.625	0.509	0.517	81.4	82.7	39.8-156			1.55	20
Vinyl chloride	0.125	0.0979	0.0884	78.4	70.7	58.4-134			10.2	20
Xylenes, Total	0.375	0.332	0.321	88.5	85.6	78.1-123			3.37	20
(S) Toluene-d8				107	106	80.0-120				
(S) Dibromofluoromethane				102	103	74.0-131				
(S) 4-Bromofluorobenzene				97.1	96.7	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993557-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993557-19 05/14/18 04:08 • (MS) R3309627-4 05/14/18 04:28 • (MSD) R3309627-5 05/14/18 05:12

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	3.42	U	1.21	1.06	35.3	31.2	1	10.0-130			12.5	31.5
Acrylonitrile	3.42	U	1.64	1.22	48.0	35.9	1	39.3-152		J3 J6	29.1	27.2
Benzene	0.683	0.000776	0.746	0.721	109	105	1	47.8-131			3.31	22.8
Bromobenzene	0.683	U	0.934	0.902	137	132	1	40.0-130	J5	J5	3.46	27.4
Bromodichloromethane	0.683	U	0.823	0.806	120	118	1	50.6-128			2.03	22.8
Bromochloromethane	0.683	U	0.722	0.538	106	78.8	1	62.9-126		J3	29.2	20
Bromoform	0.683	U	0.739	0.744	108	109	1	43.3-139			0.771	25.9
Bromomethane	0.683	U	0.238	0.272	34.9	39.7	1	5.00-189			13.0	26.7
n-Butylbenzene	0.683	U	0.956	0.991	140	145	1	23.6-146			3.51	39.2
sec-Butylbenzene	0.683	U	0.931	0.903	136	132	1	31.0-142			3.06	34.7
tert-Butylbenzene	0.683	U	0.922	0.893	135	131	1	36.9-142			3.12	31.7
Carbon disulfide	0.683	U	0.653	0.626	95.6	91.6	1	21.2-135			4.23	23.8
Carbon tetrachloride	0.683	U	0.781	0.766	114	112	1	46.0-140			1.97	27.2
Chlorobenzene	0.683	U	0.933	0.897	137	131	1	44.1-134	J5		3.95	25.7
Chlorodibromomethane	0.683	U	0.848	0.836	124	122	1	49.7-134			1.45	24
Chloroethane	0.683	U	0.151	0.152	22.1	22.3	1	5.00-164			0.980	28.4
Chloroform	0.683	U	0.753	0.661	110	96.7	1	51.2-133			13.0	22.8
Chloromethane	0.683	U	0.917	0.921	134	135	1	31.4-141			0.474	24.6
2-Chlorotoluene	0.683	U	0.893	0.794	131	116	1	36.1-137			11.7	28.9
4-Chlorotoluene	0.683	U	0.857	0.822	125	120	1	35.4-137			4.11	29.8
1,2-Dibromo-3-Chloropropane	0.683	U	0.652	0.699	95.4	102	1	40.4-138			6.92	30.8
1,2-Dibromoethane	0.683	U	0.898	0.886	132	130	1	50.2-133			1.41	23.6
Dibromomethane	0.683	U	0.769	0.763	113	112	1	52.4-128			0.806	23
1,2-Dichlorobenzene	0.683	U	0.886	0.867	130	127	1	34.6-139			2.14	29.9
1,3-Dichlorobenzene	0.683	U	0.911	0.875	133	128	1	28.4-142			3.97	31.2
1,4-Dichlorobenzene	0.683	U	0.886	0.865	130	127	1	35.0-133			2.43	31.1
trans-1,4-Dichloro-2-butene	0.683	U	0.869	0.895	127	131	1	30.0-147			2.90	29
Dichlorodifluoromethane	0.683	U	1.34	1.35	196	197	1	31.2-144	J5	J5	0.584	30.2
1,1-Dichloroethane	0.683	U	0.790	0.719	116	105	1	49.1-136			9.41	22.9
1,2-Dichloroethane	0.683	U	0.677	0.605	99.1	88.6	1	47.1-129			11.2	22.7
1,1-Dichloroethene	0.683	U	0.682	0.670	99.9	98.1	1	36.1-142			1.81	25.6
cis-1,2-Dichloroethene	0.683	0.0150	0.755	0.677	108	97.0	1	50.6-133			10.8	23
trans-1,2-Dichloroethene	0.683	U	0.802	0.753	117	110	1	43.8-135			6.37	24.8
1,2-Dichloropropane	0.683	U	0.848	0.814	124	119	1	50.3-134			4.11	22.7
1,1-Dichloropropene	0.683	U	0.844	0.812	124	119	1	43.0-137			3.88	26.4
1,3-Dichloropropane	0.683	U	1.03	1.01	150	147	1	51.4-127	J5	J5	2.13	23.1
cis-1,3-Dichloropropene	0.683	U	0.847	0.829	124	121	1	48.4-134			2.24	23.6
trans-1,3-Dichloropropene	0.683	U	0.838	0.829	123	121	1	46.6-135			1.08	25.3
2,2-Dichloropropane	0.683	U	0.547	0.537	80.1	78.6	1	45.2-141			1.88	26.6

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993557-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993557-19 05/14/18 04:08 • (MS) R3309627-4 05/14/18 04:28 • (MSD) R3309627-5 05/14/18 05:12

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	0.683	U	0.668	0.574	97.7	84.1	1	46.7-140			15.0	23.5
Ethylbenzene	0.683	U	0.961	0.915	141	134	1	44.8-135	J5		4.89	26.9
Hexachloro-1,3-butadiene	0.683	U	0.926	0.938	136	137	1	10.0-149			1.27	40
2-Hexanone	3.42	U	3.69	3.74	108	110	1	44.3-157			1.33	23.7
n-Hexane	0.683	0.00536	1.20	1.15	176	168	1	26.0-123	J5	J5	4.32	40
Iodomethane	3.42	U	2.84	2.76	83.2	80.8	1	31.5-147			2.86	23.4
Isopropylbenzene	0.683	U	0.917	0.879	134	129	1	41.9-139			4.18	29.3
p-Isopropyltoluene	0.683	U	0.996	0.964	146	141	1	27.3-146			3.29	35.1
2-Butanone (MEK)	3.42	U	2.70	2.30	79.1	67.2	1	23.9-170			16.2	28.3
Methylene Chloride	0.683	U	0.642	0.606	93.9	88.8	1	46.7-125			5.64	22.2
4-Methyl-2-pentanone (MIBK)	3.42	U	3.61	3.65	106	107	1	42.4-146			1.03	26.7
Methyl tert-butyl ether	0.683	0.000771	0.422	0.361	61.7	52.7	1	50.4-131			15.8	24.8
Naphthalene	0.683	U	0.880	0.907	129	133	1	18.4-145			2.96	34
n-Propylbenzene	0.683	U	0.948	0.900	139	132	1	35.2-139			5.16	31.9
Styrene	0.683	U	1.08	1.03	159	151	1	39.7-137	J5	J5	5.00	28.2
1,1,1,2-Tetrachloroethane	0.683	U	0.828	0.808	121	118	1	48.8-136			2.50	25.5
1,1,2,2-Tetrachloroethane	0.683	U	0.796	0.805	117	118	1	45.7-140			1.11	26.4
Tetrachloroethene	0.683	0.0144	1.02	0.966	147	139	1	37.7-140	J5		5.60	29.2
Toluene	0.683	0.00231	0.930	0.887	136	130	1	47.8-127	J5	J5	4.71	24.3
1,1,2-Trichlorotrifluoroethane	0.683	U	0.876	0.865	128	127	1	35.7-146			1.24	28.8
1,2,3-Trichlorobenzene	0.683	U	0.843	0.854	123	125	1	10.0-150			1.20	38.5
1,2,4-Trichlorobenzene	0.683	U	0.887	0.889	130	130	1	10.0-153			0.159	39.3
1,1,1-Trichloroethane	0.683	U	0.760	0.740	111	108	1	49.0-138			2.59	25.3
1,1,2-Trichloroethane	0.683	U	0.930	0.906	136	133	1	52.3-132	J5	J5	2.61	23.4
Trichloroethene	0.683	0.00359	0.764	0.733	111	107	1	48.0-132			4.16	24.8
Trichlorofluoromethane	0.683	U	1.12	1.09	164	160	1	12.8-169			2.09	29.7
1,2,3-Trichloropropane	0.683	U	0.815	0.822	119	120	1	44.4-138			0.856	26.3
1,2,3-Trimethylbenzene	0.683	U	0.913	0.894	134	131	1	41.0-133	J5		2.18	27.6
1,2,4-Trimethylbenzene	0.683	U	0.879	0.819	129	120	1	32.9-139			7.02	30.6
1,3,5-Trimethylbenzene	0.683	U	0.943	0.871	138	128	1	37.1-138			7.91	30.6
Vinyl acetate	3.42	U	1.06	1.17	30.9	34.2	1	5.00-184			10.1	40
Vinyl chloride	0.683	U	0.110	0.0922	16.0	13.5	1	32.0-146	J6	J6	17.2	26.3
Xylenes, Total	2.05	U	2.69	2.58	131	126	1	42.7-135			4.31	26.6
(S) Toluene-d8					113	112		80.0-120				
(S) Dibromofluoromethane					88.0	77.1		74.0-131				
(S) 4-Bromofluorobenzene					101	99.5		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) R3310137-3 05/15/18 11:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	0.00244	U	0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100

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



Method Blank (MB)

(MB) R3310137-3 05/15/18 11:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	0.00185	U	0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	113			80.0-120
(S) Dibromofluoromethane	82.4			74.0-131
(S) 4-Bromofluorobenzene	98.9			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) R3310137-1 05/15/18 09:49 • (LCSD) R3310137-2 05/15/18 10:08

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	0.625	0.530	0.546	84.9	87.3	25.3-178			2.79	22.9
Acrylonitrile	0.625	0.582	0.589	93.2	94.3	57.8-143			1.22	20
Benzene	0.125	0.113	0.118	90.2	94.3	72.6-120			4.38	20
Bromobenzene	0.125	0.128	0.131	102	105	80.3-115			2.77	20
Bromodichloromethane	0.125	0.123	0.127	98.4	101	75.3-119			2.90	20
Bromochloromethane	0.125	0.121	0.124	96.8	99.4	79.7-123			2.63	20
Bromoform	0.125	0.119	0.121	95.3	96.5	69.1-135			1.24	20
Bromomethane	0.125	0.136	0.143	109	115	23.0-191			5.24	20
n-Butylbenzene	0.125	0.121	0.128	97.2	102	74.2-134			5.21	20
sec-Butylbenzene	0.125	0.116	0.123	92.9	98.1	77.8-129			5.47	20
tert-Butylbenzene	0.125	0.110	0.117	88.3	93.3	77.2-129			5.56	20
Carbon disulfide	0.125	0.114	0.120	91.2	96.3	49.9-136			5.43	20
Carbon tetrachloride	0.125	0.121	0.128	96.9	103	69.4-129			5.60	20
Chlorobenzene	0.125	0.120	0.125	96.2	100	78.9-122			3.84	20
Chlorodibromomethane	0.125	0.125	0.128	99.7	103	76.4-126			2.87	20
Chloroethane	0.125	0.119	0.128	95.0	103	47.2-147			7.71	20
Chloroform	0.125	0.119	0.124	95.0	99.0	73.3-122			4.05	20
Chloromethane	0.125	0.0981	0.103	78.5	82.8	53.1-135			5.33	20
2-Chlorotoluene	0.125	0.117	0.121	93.3	96.7	74.6-127			3.52	20
4-Chlorotoluene	0.125	0.123	0.129	98.6	103	79.5-123			4.67	20
1,2-Dibromo-3-Chloropropane	0.125	0.118	0.120	94.7	96.0	64.9-131			1.33	20
1,2-Dibromoethane	0.125	0.124	0.128	99.5	102	78.7-123			2.53	20
Dibromomethane	0.125	0.125	0.127	99.8	102	78.5-117			2.01	20
1,2-Dichlorobenzene	0.125	0.131	0.135	105	108	83.6-119			3.23	20
1,3-Dichlorobenzene	0.125	0.131	0.136	104	109	75.9-129			3.81	20
1,4-Dichlorobenzene	0.125	0.127	0.132	102	106	81.0-115			3.78	20
trans-1,4-Dichloro-2-butene	0.125	0.119	0.121	95.1	96.8	58.4-125			1.83	20
Dichlorodifluoromethane	0.125	0.125	0.128	99.8	103	50.9-139			2.90	20
1,1-Dichloroethane	0.125	0.123	0.129	98.1	103	71.7-125			4.80	20
1,2-Dichloroethane	0.125	0.123	0.127	98.4	102	67.2-121			3.07	20
1,1-Dichloroethene	0.125	0.112	0.119	89.6	95.4	60.6-133			6.29	20
cis-1,2-Dichloroethene	0.125	0.112	0.117	89.6	93.9	76.1-121			4.68	20
trans-1,2-Dichloroethene	0.125	0.118	0.125	94.1	99.8	70.7-124			5.87	20
1,2-Dichloropropane	0.125	0.121	0.125	96.6	99.8	76.9-123			3.27	20
1,1-Dichloropropene	0.125	0.113	0.121	90.5	96.6	71.2-126			6.49	20
1,3-Dichloropropane	0.125	0.142	0.145	114	116	80.3-114		J4	2.23	20
cis-1,3-Dichloropropene	0.125	0.116	0.120	92.7	95.8	77.3-123			3.35	20
trans-1,3-Dichloropropene	0.125	0.111	0.114	88.9	91.4	73.0-127			2.87	20
2,2-Dichloropropane	0.125	0.102	0.108	81.7	86.3	61.9-132			5.45	20
Di-isopropyl ether	0.125	0.108	0.111	86.5	89.1	67.2-131			2.91	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) R3310137-1 05/15/18 09:49 • (LCSD) R3310137-2 05/15/18 10:08

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	0.125	0.109	0.114	87.4	91.5	78.6-124			4.64	20
Hexachloro-1,3-butadiene	0.125	0.134	0.143	107	114	69.2-136			6.47	20
2-Hexanone	0.625	0.613	0.618	98.2	98.9	62.7-150			0.748	20
n-Hexane	0.125	0.174	0.184	139	147	59.9-125	J4	J4	5.58	20
Iodomethane	0.625	0.559	0.585	89.4	93.6	63.3-136			4.56	20
Isopropylbenzene	0.125	0.112	0.118	89.5	94.3	79.4-126			5.20	20
p-Isopropyltoluene	0.125	0.122	0.129	98.0	103	75.4-132			5.23	20
2-Butanone (MEK)	0.625	0.635	0.649	102	104	44.5-154			2.20	21.3
Methylene Chloride	0.125	0.110	0.114	87.6	90.8	68.2-119			3.56	20
4-Methyl-2-pentanone (MIBK)	0.625	0.581	0.589	92.9	94.2	61.1-138			1.39	20
Methyl tert-butyl ether	0.125	0.0858	0.0882	68.6	70.6	70.2-122	J4		2.81	20
Naphthalene	0.125	0.128	0.134	103	108	69.9-132			4.62	20
n-Propylbenzene	0.125	0.116	0.121	92.5	97.0	80.2-124			4.73	20
Styrene	0.125	0.111	0.114	88.6	91.0	79.4-124			2.64	20
1,1,1,2-Tetrachloroethane	0.125	0.121	0.124	96.9	99.3	76.7-127			2.46	20
1,1,2,2-Tetrachloroethane	0.125	0.129	0.132	104	105	78.8-124			1.62	20
Tetrachloroethene	0.125	0.128	0.135	102	108	71.1-133			5.36	20
Toluene	0.125	0.120	0.126	96.4	101	76.7-116			4.34	20
1,1,2-Trichlorotrifluoroethane	0.125	0.140	0.149	112	119	62.6-138			6.07	20
1,2,3-Trichlorobenzene	0.125	0.126	0.132	101	106	72.5-137			4.66	20
1,2,4-Trichlorobenzene	0.125	0.130	0.136	104	109	74.0-137			4.72	20
1,1,1-Trichloroethane	0.125	0.117	0.123	93.4	98.7	69.9-127			5.51	20
1,1,2-Trichloroethane	0.125	0.129	0.132	103	106	81.9-119			2.39	20
Trichloroethene	0.125	0.106	0.112	84.5	89.3	77.2-122			5.57	20
Trichlorofluoromethane	0.125	0.145	0.155	116	124	51.5-151			6.94	20
1,2,3-Trichloropropane	0.125	0.126	0.128	101	103	74.0-124			1.45	20
1,2,3-Trimethylbenzene	0.125	0.126	0.132	101	105	79.4-118			4.47	20
1,2,4-Trimethylbenzene	0.125	0.107	0.112	85.7	89.5	77.1-124			4.28	20
1,3,5-Trimethylbenzene	0.125	0.119	0.123	94.9	98.5	79.0-125			3.71	20
Vinyl acetate	0.625	0.506	0.523	81.0	83.7	39.8-156			3.25	20
Vinyl chloride	0.125	0.0982	0.106	78.5	85.0	58.4-134			7.92	20
Xylenes, Total	0.375	0.332	0.347	88.5	92.5	78.1-123			4.42	20
(S) Toluene-d8				105	105	80.0-120				
(S) Dibromofluoromethane				104	104	74.0-131				
(S) 4-Bromofluorobenzene				99.0	98.7	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993413-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993413-03 05/15/18 20:40 • (MS) R3310137-4 05/15/18 21:19 • (MSD) R3310137-5 05/15/18 21:39

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	0.625	ND	0.240	0.0980	38.4	15.7	1	10.0-130		J3	83.9	31.5
Acrylonitrile	0.625	ND	0.312	0.253	49.9	40.5	1	39.3-152			20.9	27.2
Benzene	0.125	ND	0.0477	0.0668	38.1	53.5	1	47.8-131	J6	J3	33.5	22.8
Bromobenzene	0.125	ND	0.0925	0.102	74.0	81.4	1	40.0-130			9.55	27.4
Bromodichloromethane	0.125	ND	0.0789	0.0896	63.1	71.7	1	50.6-128			12.6	22.8
Bromochloromethane	0.125	ND	0.0721	0.0761	57.6	60.9	1	62.9-126	J6	J6	5.50	20
Bromoform	0.125	ND	0.103	0.0952	82.1	76.2	1	43.3-139			7.51	25.9
Bromomethane	0.125	ND	0.00948	0.0149	7.59	11.9	1	5.00-189		J3	44.3	26.7
n-Butylbenzene	0.125	ND	0.0619	0.101	49.5	81.0	1	23.6-146		J3	48.2	39.2
sec-Butylbenzene	0.125	ND	0.0534	0.0905	42.7	72.4	1	31.0-142		J3	51.5	34.7
tert-Butylbenzene	0.125	ND	0.0530	0.0842	42.4	67.4	1	36.9-142		J3	45.5	31.7
Carbon disulfide	0.125	ND	0.0121	0.0213	9.66	17.1	1	21.2-135	J6	J3 J6	55.5	23.8
Carbon tetrachloride	0.125	ND	0.0353	0.0658	28.2	52.6	1	46.0-140	J6	J3	60.4	27.2
Chlorobenzene	0.125	ND	0.0726	0.0942	58.1	75.3	1	44.1-134		J3	25.9	25.7
Chlorodibromomethane	0.125	ND	0.0964	0.101	77.1	80.9	1	49.7-134			4.78	24
Chloroethane	0.125	ND	0.00462	0.00912	2.28	5.88	1	5.00-164	J6	J3	65.6	28.4
Chloroform	0.125	ND	0.0649	0.0774	51.9	61.9	1	51.2-133			17.5	22.8
Chloromethane	0.125	ND	0.0229	0.0358	18.3	28.6	1	31.4-141	J6	J3 J6	43.7	24.6
2-Chlorotoluene	0.125	ND	0.0658	0.0854	52.7	68.4	1	36.1-137			25.9	28.9
4-Chlorotoluene	0.125	ND	0.0733	0.0953	58.6	76.2	1	35.4-137			26.1	29.8
1,2-Dibromo-3-Chloropropane	0.125	ND	0.108	0.0942	86.2	75.4	1	40.4-138			13.4	30.8
1,2-Dibromoethane	0.125	ND	0.0992	0.100	78.5	79.4	1	50.2-133			1.14	23.6
Dibromomethane	0.125	ND	0.0862	0.0865	68.9	69.2	1	52.4-128			0.396	23
1,2-Dichlorobenzene	0.125	ND	0.100	0.108	80.1	86.0	1	34.6-139			7.08	29.9
1,3-Dichlorobenzene	0.125	ND	0.0899	0.104	71.9	83.4	1	28.4-142			14.8	31.2
1,4-Dichlorobenzene	0.125	ND	0.0921	0.103	73.7	82.7	1	35.0-133			11.5	31.1
trans-1,4-Dichloro-2-butene	0.125	ND	0.100	0.0895	80.0	71.6	1	30.0-147			11.1	29
Dichlorodifluoromethane	0.125	ND	0.0250	0.0615	18.2	47.4	1	31.2-144	J6	J3	84.3	30.2
1,1-Dichloroethane	0.125	ND	0.0538	0.0739	43.0	59.1	1	49.1-136	J6	J3	31.5	22.9
1,2-Dichloroethane	0.125	ND	ND	0.0894	0.000	71.5	1	47.1-129	J6	J3	200	22.7
1,1-Dichloroethene	0.125	ND	0.0261	0.0498	20.9	39.8	1	36.1-142	J6	J3	62.3	25.6
cis-1,2-Dichloroethene	0.125	ND	0.0543	0.0650	43.5	52.0	1	50.6-133	J6		17.9	23
trans-1,2-Dichloroethene	0.125	ND	0.0336	0.0512	26.9	41.0	1	43.8-135	J6	J3 J6	41.6	24.8
1,2-Dichloropropane	0.125	0.0119	0.0688	0.0850	45.5	58.5	1	50.3-134	J6		21.1	22.7
1,1-Dichloropropene	0.125	ND	0.0302	0.0553	24.2	44.3	1	43.0-137	J6	J3	58.7	26.4
1,3-Dichloropropane	0.125	ND	0.118	0.123	92.1	96.5	1	51.4-127			4.60	23.1
cis-1,3-Dichloropropene	0.125	0.00355	0.0732	0.0846	55.7	64.9	1	48.4-134			14.5	23.6
trans-1,3-Dichloropropene	0.125	ND	0.0770	0.0835	61.6	66.8	1	46.6-135			8.14	25.3
2,2-Dichloropropane	0.125	ND	0.0278	0.0482	22.2	38.5	1	45.2-141	J6	J3 J6	53.6	26.6
Di-isopropyl ether	0.125	ND	0.0705	0.0705	56.4	56.4	1	46.7-140			0.0780	23.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993413-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993413-03 05/15/18 20:40 • (MS) R3310137-4 05/15/18 21:19 • (MSD) R3310137-5 05/15/18 21:39

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	0.125	ND	0.0532	0.0801	42.5	64.1	1	44.8-135	J6	J3	40.5	26.9
Hexachloro-1,3-butadiene	0.125	ND	0.0731	0.118	58.5	94.3	1	10.0-149		J3	46.9	40
2-Hexanone	0.625	ND	0.556	0.504	89.0	80.6	1	44.3-157			9.87	23.7
n-Hexane	0.125	ND	0.0182	0.0396	14.6	31.7	1	26.0-123	J6	J3	74.1	40
Iodomethane	0.625	ND	0.172	0.241	27.5	38.6	1	31.5-147	J6	J3	33.5	23.4
Isopropylbenzene	0.125	ND	0.0526	0.0812	42.1	64.9	1	41.9-139		J3	42.7	29.3
p-Isopropyltoluene	0.125	ND	0.0591	0.0945	47.3	75.6	1	27.3-146		J3	46.1	35.1
2-Butanone (MEK)	0.625	ND	0.444	0.369	71.0	59.1	1	23.9-170			18.3	28.3
Methylene Chloride	0.125	ND	0.0535	0.0632	42.8	50.5	1	46.7-125	J6		16.6	22.2
4-Methyl-2-pentanone (MIBK)	0.625	ND	0.526	0.478	84.2	76.5	1	42.4-146			9.52	26.7
Methyl tert-butyl ether	0.125	ND	0.0502	0.0468	40.1	37.4	1	50.4-131	J6	J6	6.93	24.8
Naphthalene	0.125	ND	0.138	0.131	110	105	1	18.4-145			5.39	34
n-Propylbenzene	0.125	ND	0.0605	0.0783	48.4	62.6	1	35.2-139			25.6	31.9
Styrene	0.125	ND	0.0693	0.0839	55.4	67.1	1	39.7-137			19.0	28.2
1,1,1,2-Tetrachloroethane	0.125	ND	0.0796	0.0946	63.7	75.7	1	48.8-136			17.2	25.5
1,1,2,2-Tetrachloroethane	0.125	ND	0.117	0.106	93.4	85.0	1	45.7-140			9.52	26.4
Tetrachloroethene	0.125	ND	0.0445	0.0767	35.6	61.4	1	37.7-140	J6	J3	53.1	29.2
Toluene	0.125	ND	0.0573	0.0821	45.8	65.7	1	47.8-127	J6	J3	35.6	24.3
1,1,2-Trichlorotrifluoroethane	0.125	ND	0.0358	0.0846	28.6	67.7	1	35.7-146	J6	J3	81.1	28.8
1,2,3-Trichlorobenzene	0.125	ND	0.109	0.112	87.4	89.5	1	10.0-150			2.39	38.5
1,2,4-Trichlorobenzene	0.125	ND	0.103	0.112	82.5	89.8	1	10.0-153			8.43	39.3
1,1,1-Trichloroethane	0.125	ND	0.0396	0.0675	31.7	54.0	1	49.0-138	J6	J3	52.2	25.3
1,1,2-Trichloroethane	0.125	ND	0.112	0.114	89.5	91.5	1	52.3-132			2.25	23.4
Trichloroethene	0.125	ND	0.0475	0.0678	38.0	54.2	1	48.0-132	J6	J3	35.2	24.8
Trichlorofluoromethane	0.125	ND	0.0323	0.0719	25.4	57.1	1	12.8-169		J3	76.0	29.7
1,2,3-Trichloropropane	0.125	ND	0.123	0.110	98.3	88.0	1	44.4-138			11.0	26.3
1,2,3-Trimethylbenzene	0.125	ND	0.0817	0.0995	65.4	79.6	1	41.0-133			19.7	27.6
1,2,4-Trimethylbenzene	0.125	ND	0.0742	0.0977	57.5	76.3	1	32.9-139			27.3	30.6
1,3,5-Trimethylbenzene	0.125	ND	0.0448	0.0878	35.8	70.2	1	37.1-138	J6	J3	64.8	30.6
Vinyl acetate	0.625	ND	0.0669	0.0506	10.7	8.10	1	5.00-184			27.8	40
Vinyl chloride	0.125	ND	0.00249	0.00541	0.462	2.79	1	32.0-146	J6	J3 J6	73.7	26.3
Xylenes, Total	0.375	ND	0.173	0.247	46.0	65.8	1	42.7-135		J3	35.4	26.6
(S) Toluene-d8					109	113		80.0-120				
(S) Dibromofluoromethane					98.3	87.5		74.0-131				
(S) 4-Bromofluorobenzene					100	99.2		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) R3310417-3 05/16/18 10:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
n-Hexane	U		0.00106	0.00500
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	88.3			74.0-131
(S) 4-Bromofluorobenzene	104			64.0-132

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3310417-1 05/16/18 08:44 • (LCSD) R3310417-2 05/16/18 09:05

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 %
n-Hexane	0.125	0.137	0.118	110	94.5	59.9-125			15.0	20
Tetrachloroethene	0.125	0.129	0.134	103	107	71.1-133			4.25	20
(S) Toluene-d8				105	102	80.0-120				
(S) Dibromofluoromethane				98.9	98.0	74.0-131				
(S) 4-Bromofluorobenzene				102	100	64.0-132				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 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.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



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.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

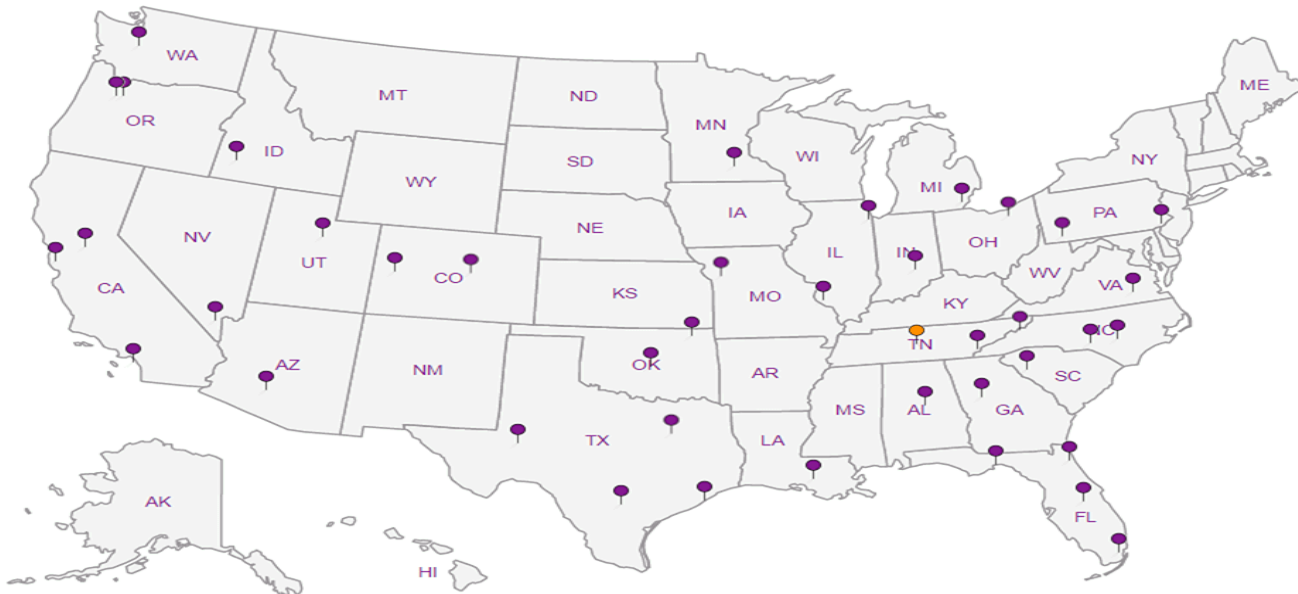
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater 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:
Brian O'Neal/Bill Haldeman

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

Project Description: **AMERICAN LINEN**

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

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

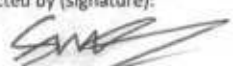
Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Collected by (print):
S. MCKERVAN

Site/Facility ID #
1413.001.05.601

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 #

Immediately Packed on Ice N Y X

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-160-11	GRAB	SS	11	5/8/18	0855	5
MW-160-21		SS	21		0915	
MW-160-31		SS	31		0928	
MW-160-40		SS	40		0945	
MW-160-45		SS	45		0955	4
MW-160-50		SS	50		1100	
MW-160-55		SS	55		1115	
MW-160-60			60		1130	
MW-160-70			70		1255	
MW-160-80			80		1330	

* 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

Analysis / Container / Preservative
V8260C VOCs 40ml/NaHSO4/Syr/MeOH dry wt, voc screen 2ozClr-NoPres

Chain of Custody Page 1 of 2

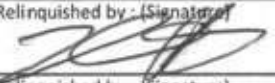



LAB SERVICES
 a subsidiary of *PerkinElmer*

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



L# **993391**
D191
 Acctnum: **PESENVSWA**
 Template: **T134663**
 Prelogin: **P647546**
 TSR: **110 - Brian Ford**
 PB: **4-4-18 cm**
 Shipped Via: **FedEX Ground**

Relinquished by: (Signature) 	Date: 5-10-18	Time: 1445	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> No MeOH / TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.77 °C Bottles Received: 64
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 5/11/18 Time: 8:45

Sample Receipt Checklist	
COC Seal Present/Intact:	<input 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 type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input type="checkbox"/> Y <input type="checkbox"/> N

5-070 Condition: **NCF / OK**

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



ESC
 L.A.B. S.C.I.E.N.C.E.S.
 a subsidiary of *Accutest*

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



Report to:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
 bhaldeman@pesenv.com

Project Description: **AMERICAN LINEN**

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

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

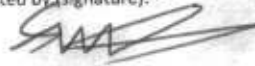
Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Collected by (print): **S MCKERNAN**
K SPRINGSTEAD

Site/Facility ID #
1413.001.05.601

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

V8260C VOCs 40ml/NaHSO4/Syr/MeOH

dry wt, voc screen 2ozClr-NoPres

L# **993371**

Table #

Acctnum: **PESENVSWA**
 Template: **T134663**
 Prelogin: **P647546**
 TSR: **110 - Brian Ford**
 PB: **U-1118 cm**

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	-09
	-10
	-11

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-160-90	GRAB	SS	90	5/8/18	1428	5
MW-160-100		SS	100	↓	1505	1
MW-160-110		SS	110	↓	1530	1
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				

* 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 _____

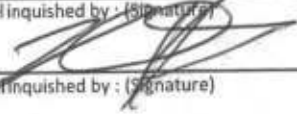
Tracking # _____

pH _____ Temp _____
 Flow _____ Other _____

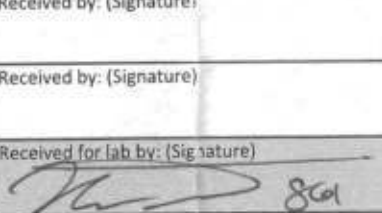
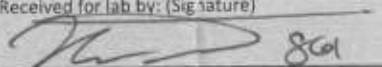
Sample Receipt Checklist

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) 
 Relinquished by: (Signature)
 Relinquished by: (Signature)

Date: **5-10-18**
 Time: **1445**

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

Trip Blank Received: Yes / No
 CL / MeOH
 TBR

Temp: **9.7** °C
 Bottles Received: **64**

Date: **5/11/18** Time: **8:45**

If preservation required by Login: Date/Time

Hold:

Condition: **NCF / OK**



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.4		1	05/15/2018 13:05	WG111243

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	0.0290	J	0.0223	0.0406	1.24	05/15/2018 13:12	WG110982
Acrylonitrile	U		0.00309	0.0203	1.24	05/15/2018 13:12	WG110982
Benzene	U		0.000649	0.00162	1.24	05/15/2018 13:12	WG110982
Bromobenzene	U		0.00170	0.0203	1.24	05/15/2018 13:12	WG110982
Bromodichloromethane	U		0.00128	0.00406	1.24	05/15/2018 13:12	WG110982
Bromochloromethane	U		0.00183	0.00812	1.24	05/15/2018 13:12	WG110982
Bromoform	U		0.00971	0.0406	1.24	05/15/2018 13:12	WG110982
Bromomethane	U		0.00601	0.0203	1.24	05/15/2018 13:12	WG110982
n-Butylbenzene	U		0.00623	0.0203	1.24	05/15/2018 13:12	WG110982
sec-Butylbenzene	U		0.00411	0.0203	1.24	05/15/2018 13:12	WG110982
tert-Butylbenzene	U		0.00251	0.00812	1.24	05/15/2018 13:12	WG110982
Carbon disulfide	0.00861	J	0.00658	0.0203	1.24	05/15/2018 13:12	WG110982
Carbon tetrachloride	U		0.00175	0.00812	1.24	05/15/2018 13:12	WG110982
Chlorobenzene	U		0.000929	0.00406	1.24	05/15/2018 13:12	WG110982
Chlorodibromomethane	U		0.000730	0.00406	1.24	05/15/2018 13:12	WG110982
Chloroethane	U		0.00175	0.00812	1.24	05/15/2018 13:12	WG110982
Chloroform	U		0.000674	0.00406	1.24	05/15/2018 13:12	WG110982
Chloromethane	U	UJ	0.00225	0.0203	1.24	05/15/2018 13:12	WG110982
2-Chlorotoluene	U		0.00149	0.00406	1.24	05/15/2018 13:12	WG110982
4-Chlorotoluene	U		0.00183	0.00812	1.24	05/15/2018 13:12	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00827	0.0406	1.24	05/15/2018 13:12	WG110982
1,2-Dibromoethane	U		0.000852	0.00406	1.24	05/15/2018 13:12	WG110982
Dibromomethane	U		0.00162	0.00812	1.24	05/15/2018 13:12	WG110982
1,2-Dichlorobenzene	U		0.00236	0.00812	1.24	05/15/2018 13:12	WG110982
1,3-Dichlorobenzene	U		0.00276	0.00812	1.24	05/15/2018 13:12	WG110982
1,4-Dichlorobenzene	U		0.00319	0.00812	1.24	05/15/2018 13:12	WG110982
Dichlorodifluoromethane	U		0.00132	0.00406	1.24	05/15/2018 13:12	WG110982
1,1-Dichloroethane	U		0.000933	0.00406	1.24	05/15/2018 13:12	WG110982
1,2-Dichloroethane	U		0.000771	0.00406	1.24	05/15/2018 13:12	WG110982
1,1-Dichloroethene	U		0.000812	0.00406	1.24	05/15/2018 13:12	WG110982
cis-1,2-Dichloroethene	U		0.00112	0.00406	1.24	05/15/2018 13:12	WG110982
trans-1,2-Dichloroethene	U		0.00232	0.00812	1.24	05/15/2018 13:12	WG110982
1,2-Dichloropropane	U		0.00206	0.00812	1.24	05/15/2018 13:12	WG110982
1,1-Dichloropropene	U		0.00114	0.00406	1.24	05/15/2018 13:12	WG110982
1,3-Dichloropropane	U		0.00284	0.00812	1.24	05/15/2018 13:12	WG110982
cis-1,3-Dichloropropene	U		0.00110	0.00406	1.24	05/15/2018 13:12	WG110982
trans-1,3-Dichloropropene	U		0.00249	0.00812	1.24	05/15/2018 13:12	WG110982
trans-1,4-Dichloro-2-butene	U		0.00228	0.00812	1.24	05/15/2018 13:12	WG110982
2,2-Dichloropropane	U		0.00129	0.00406	1.24	05/15/2018 13:12	WG110982
Di-isopropyl ether	U		0.000568	0.00162	1.24	05/15/2018 13:12	WG110982
Ethylbenzene	U		0.000860	0.00406	1.24	05/15/2018 13:12	WG110982
Hexachloro-1,3-butadiene	U		0.0206	0.0406	1.24	05/15/2018 13:12	WG110982
2-Hexanone	U		0.0162	0.0406	1.24	05/15/2018 13:12	WG110982
n-Hexane	U		0.00171	0.00812	1.24	05/16/2018 11:01	WG110982-1
Iodomethane	U		0.00982	0.0203	1.24	05/15/2018 13:12	WG110982
Isopropylbenzene	U		0.00140	0.00406	1.24	05/15/2018 13:12	WG110982
p-Isopropyltoluene	U		0.00378	0.00812	1.24	05/15/2018 13:12	WG110982
2-Butanone (MEK)	U		0.0203	0.0406	1.24	05/15/2018 13:12	WG110982
Methylene Chloride	U		0.0108	0.0406	1.24	05/15/2018 13:12	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0162	0.0406	1.24	05/15/2018 13:12	WG110982

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

JC 6/14/18



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	UJ	0.00479	0.00162	1.24	05/15/2018 13:12	WG1110982
Naphthalene	U		0.00507	0.0203	1.24	05/15/2018 13:12	WG1110982
n-Propylbenzene	U		0.00191	0.00812	1.24	05/15/2018 13:12	WG1110982
Styrene	U		0.00442	0.0203	1.24	05/15/2018 13:12	WG1110982
1,1,1,2-Tetrachloroethane	U		0.000812	0.00406	1.24	05/15/2018 13:12	WG1110982
1,1,2,2-Tetrachloroethane	U		0.000634	0.00406	1.24	05/15/2018 13:12	WG1110982
1,1,2-Trichlorotrifluoroethane	U		0.00110	0.00406	1.24	05/15/2018 13:12	WG1110982
Tetrachloroethene	U		0.00114	0.00406	1.24	05/15/2018 13:12	WG1110982
Toluene	0.00635	J	0.00203	0.00812	1.24	05/15/2018 13:12	WG1110982
1,2,3-Trichlorobenzene	0.00136	J	0.00101	0.00406	1.24	05/15/2018 13:12	WG1110982
1,2,4-Trichlorobenzene	U		0.00783	0.0203	1.24	05/15/2018 13:12	WG1110982
1,1,1-Trichloroethane	U		0.000446	0.00406	1.24	05/15/2018 13:12	WG1110982
1,1,2-Trichloroethane	U		0.00143	0.00406	1.24	05/15/2018 13:12	WG1110982
Trichloroethene	U		0.000649	0.00162	1.24	05/15/2018 13:12	WG1110982
Trichlorofluoromethane	U		0.000812	0.00406	1.24	05/15/2018 13:12	WG1110982
1,2,3-Trichloropropane	U		0.00827	0.0203	1.24	05/15/2018 13:12	WG1110982
1,2,4-Trimethylbenzene	U		0.00188	0.00812	1.24	05/15/2018 13:12	WG1110982
1,2,3-Trimethylbenzene	U		0.00187	0.00812	1.24	05/15/2018 13:12	WG1110982
1,3,5-Trimethylbenzene	U		0.00175	0.00812	1.24	05/15/2018 13:12	WG1110982
Vinyl acetate	U		0.00571	0.0203	1.24	05/15/2018 13:12	WG1110982
Vinyl chloride	U		0.00111	0.00406	1.24	05/15/2018 13:12	WG1110982
Xylenes, Total	U		0.00776	0.0106	1.24	05/15/2018 13:12	WG1110982
(S) Toluene-d8	110			80.0-120		05/15/2018 13:12	WG1110982
(S) Toluene-d8	105			80.0-120		05/16/2018 11:01	WG1110982-1
(S) Dibromofluoromethane	100			74.0-131		05/15/2018 13:12	WG1110982
(S) Dibromofluoromethane	91.8			74.0-131		05/16/2018 11:01	WG1110982-1
(S) 4-Bromofluorobenzene	98.2			64.0-132		05/15/2018 13:12	WG1110982
(S) 4-Bromofluorobenzene	104			64.0-132		05/16/2018 11:01	WG1110982-1

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.3		1	05/15/2018 13:05	WG111243

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	0.0255	J	0.0161	0.0293	1	05/15/2018 13:32	WG110982
Acrylonitrile	U		0.00223	0.0147	1	05/15/2018 13:32	WG110982
Benzene	0.000662	J	0.000469	0.00117	1	05/15/2018 13:32	WG110982
Bromobenzene	U		0.00123	0.0147	1	05/15/2018 13:32	WG110982
Bromodichloromethane	U		0.000924	0.00293	1	05/15/2018 13:32	WG110982
Bromochloromethane	U		0.00132	0.00586	1	05/15/2018 13:32	WG110982
Bromoform	U		0.00701	0.0293	1	05/15/2018 13:32	WG110982
Bromomethane	U		0.00434	0.0147	1	05/15/2018 13:32	WG110982
n-Butylbenzene	U		0.00450	0.0147	1	05/15/2018 13:32	WG110982
sec-Butylbenzene	U		0.00297	0.0147	1	05/15/2018 13:32	WG110982
tert-Butylbenzene	U		0.00182	0.00586	1	05/15/2018 13:32	WG110982
Carbon disulfide	U		0.00476	0.0147	1	05/15/2018 13:32	WG110982
Carbon tetrachloride	U		0.00127	0.00586	1	05/15/2018 13:32	WG110982
Chlorobenzene	U		0.000672	0.00293	1	05/15/2018 13:32	WG110982
Chlorodibromomethane	U		0.000527	0.00293	1	05/15/2018 13:32	WG110982
Chloroethane	U		0.00127	0.00586	1	05/15/2018 13:32	WG110982
Chloroform	U		0.000486	0.00293	1	05/15/2018 13:32	WG110982
Chloromethane	U	UJ	0.00163	0.0147	1	05/15/2018 13:32	WG110982
2-Chlorotoluene	U		0.00108	0.00293	1	05/15/2018 13:32	WG110982
4-Chlorotoluene	U		0.00132	0.00586	1	05/15/2018 13:32	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00598	0.0293	1	05/15/2018 13:32	WG110982
1,2-Dibromoethane	U		0.000615	0.00293	1	05/15/2018 13:32	WG110982
Dibromomethane	U		0.00117	0.00586	1	05/15/2018 13:32	WG110982
1,2-Dichlorobenzene	U		0.00170	0.00586	1	05/15/2018 13:32	WG110982
1,3-Dichlorobenzene	U		0.00199	0.00586	1	05/15/2018 13:32	WG110982
1,4-Dichlorobenzene	U		0.00231	0.00586	1	05/15/2018 13:32	WG110982
Dichlorodifluoromethane	U		0.000959	0.00293	1	05/15/2018 13:32	WG110982
1,1-Dichloroethane	U		0.000674	0.00293	1	05/15/2018 13:32	WG110982
1,2-Dichloroethane	U		0.000557	0.00293	1	05/15/2018 13:32	WG110982
1,1-Dichloroethene	U		0.000586	0.00293	1	05/15/2018 13:32	WG110982
cis-1,2-Dichloroethene	0.00357		0.000809	0.00293	1	05/15/2018 13:32	WG110982
trans-1,2-Dichloroethene	U		0.00168	0.00586	1	05/15/2018 13:32	WG110982
1,2-Dichloropropane	U		0.00149	0.00586	1	05/15/2018 13:32	WG110982
1,1-Dichloropropene	U		0.000821	0.00293	1	05/15/2018 13:32	WG110982
1,3-Dichloropropane	U	J4	0.00205	0.00586	1	05/15/2018 13:32	WG110982
cis-1,3-Dichloropropene	U		0.000795	0.00293	1	05/15/2018 13:32	WG110982
trans-1,3-Dichloropropene	U		0.00179	0.00586	1	05/15/2018 13:32	WG110982
trans-1,4-Dichloro-2-butene	U		0.00164	0.00586	1	05/15/2018 13:32	WG110982
2,2-Dichloropropane	U		0.000930	0.00293	1	05/15/2018 13:32	WG110982
Di-isopropyl ether	U		0.000410	0.00117	1	05/15/2018 13:32	WG110982
Ethylbenzene	U		0.000621	0.00293	1	05/15/2018 13:32	WG110982
Hexachloro-1,3-butadiene	U		0.0149	0.0293	1	05/15/2018 13:32	WG110982
2-Hexanone	U		0.0117	0.0293	1	05/15/2018 13:32	WG110982
n-Hexane	U		0.00124	0.00586	1	05/16/2018 11:21	WG110982-1
Iodomethane	U		0.00709	0.0147	1	05/15/2018 13:32	WG110982
Isopropylbenzene	U		0.00101	0.00293	1	05/15/2018 13:32	WG110982
p-Isopropyltoluene	U		0.00273	0.00586	1	05/15/2018 13:32	WG110982
2-Butanone (MEK)	U		0.0147	0.0293	1	05/15/2018 13:32	WG110982
Methylene Chloride	U		0.00778	0.0293	1	05/15/2018 13:32	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0293	1	05/15/2018 13:32	WG110982

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

JC 6/14/18



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	UJ	0.000346	0.00117	1	05/15/2018 13:32	WG110982
Naphthalene	U		0.00366	0.0147	1	05/15/2018 13:32	WG110982
n-Propylbenzene	U		0.00138	0.00586	1	05/15/2018 13:32	WG110982
Styrene	U		0.00320	0.0147	1	05/15/2018 13:32	WG110982
1,1,1,2-Tetrachloroethane	U		0.000586	0.00293	1	05/15/2018 13:32	WG110982
1,1,2,2-Tetrachloroethane	U		0.000457	0.00293	1	05/15/2018 13:32	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000791	0.00293	1	05/15/2018 13:32	WG110982
Tetrachloroethene	0.000966	J	0.000821	0.00293	1	05/15/2018 13:32	WG110982
Toluene	0.00421	J	0.00147	0.00586	1	05/15/2018 13:32	WG110982
1,2,3-Trichlorobenzene	U		0.000733	0.00293	1	05/15/2018 13:32	WG110982
1,2,4-Trichlorobenzene	U		0.00565	0.0147	1	05/15/2018 13:32	WG110982
1,1,1-Trichloroethane	U		0.000322	0.00293	1	05/15/2018 13:32	WG110982
1,1,2-Trichloroethane	U		0.00104	0.00293	1	05/15/2018 13:32	WG110982
Trichloroethene	U		0.000469	0.00117	1	05/15/2018 13:32	WG110982
Trichlorofluoromethane	U		0.000586	0.00293	1	05/15/2018 13:32	WG110982
1,2,3-Trichloropropane	U		0.00598	0.0147	1	05/15/2018 13:32	WG110982
1,2,4-Trimethylbenzene	U		0.00136	0.00586	1	05/15/2018 13:32	WG110982
1,2,3-Trimethylbenzene	U		0.00135	0.00586	1	05/15/2018 13:32	WG110982
1,3,5-Trimethylbenzene	U		0.00127	0.00586	1	05/15/2018 13:32	WG110982
Vinyl acetate	U		0.00413	0.0147	1	05/15/2018 13:32	WG110982
Vinyl chloride	U		0.000801	0.00293	1	05/15/2018 13:32	WG110982
Xylenes, Total	U		0.00560	0.00762	1	05/15/2018 13:32	WG110982
(S) Toluene-d8	112			80.0-120		05/15/2018 13:32	WG110982
(S) Toluene-d8	82.6			80.0-120		05/16/2018 11:21	WG110982-1
(S) Dibromofluoromethane	99.1			74.0-131		05/15/2018 13:32	WG110982
(S) Dibromofluoromethane	90.9			74.0-131		05/16/2018 11:21	WG110982-1
(S) 4-Bromofluorobenzene	97.7			64.0-132		05/15/2018 13:32	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 11:21	WG110982-1

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.4		1	05/15/2018 13:05	WG111243

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	0.0203	J J	0.0166	0.0303	1	05/15/2018 13:52	WG110982
Acrylonitrile	U		0.00230	0.0152	1	05/15/2018 13:52	WG110982
Benzene	0.000503	J J	0.000485	0.00121	1	05/15/2018 13:52	WG110982
Bromobenzene	U		0.00127	0.0152	1	05/15/2018 13:52	WG110982
Bromodichloromethane	U		0.000956	0.00303	1	05/15/2018 13:52	WG110982
Bromochloromethane	U		0.00137	0.00606	1	05/15/2018 13:52	WG110982
Bromoform	U		0.00725	0.0303	1	05/15/2018 13:52	WG110982
Bromomethane	U		0.00449	0.0152	1	05/15/2018 13:52	WG110982
n-Butylbenzene	U		0.00466	0.0152	1	05/15/2018 13:52	WG110982
sec-Butylbenzene	U		0.00307	0.0152	1	05/15/2018 13:52	WG110982
tert-Butylbenzene	U		0.00188	0.00606	1	05/15/2018 13:52	WG110982
Carbon disulfide	U		0.00492	0.0152	1	05/15/2018 13:52	WG110982
Carbon tetrachloride	U		0.00131	0.00606	1	05/15/2018 13:52	WG110982
Chlorobenzene	U		0.000695	0.00303	1	05/15/2018 13:52	WG110982
Chlorodibromomethane	U		0.000546	0.00303	1	05/15/2018 13:52	WG110982
Chloroethane	U		0.00131	0.00606	1	05/15/2018 13:52	WG110982
Chloroform	U		0.000503	0.00303	1	05/15/2018 13:52	WG110982
Chloromethane	U	UJ JO	0.00169	0.0152	1	05/15/2018 13:52	WG110982
2-Chlorotoluene	U		0.00112	0.00303	1	05/15/2018 13:52	WG110982
4-Chlorotoluene	U		0.00137	0.00606	1	05/15/2018 13:52	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00619	0.0303	1	05/15/2018 13:52	WG110982
1,2-Dibromoethane	U		0.000637	0.00303	1	05/15/2018 13:52	WG110982
Dibromomethane	U		0.00121	0.00606	1	05/15/2018 13:52	WG110982
1,2-Dichlorobenzene	U		0.00176	0.00606	1	05/15/2018 13:52	WG110982
1,3-Dichlorobenzene	U		0.00206	0.00606	1	05/15/2018 13:52	WG110982
1,4-Dichlorobenzene	U		0.00239	0.00606	1	05/15/2018 13:52	WG110982
Dichlorodifluoromethane	U		0.000992	0.00303	1	05/15/2018 13:52	WG110982
1,1-Dichloroethane	U		0.000697	0.00303	1	05/15/2018 13:52	WG110982
1,2-Dichloroethane	U		0.000576	0.00303	1	05/15/2018 13:52	WG110982
1,1-Dichloroethene	U		0.000606	0.00303	1	05/15/2018 13:52	WG110982
cis-1,2-Dichloroethene	U		0.000837	0.00303	1	05/15/2018 13:52	WG110982
trans-1,2-Dichloroethene	U		0.00173	0.00606	1	05/15/2018 13:52	WG110982
1,2-Dichloropropane	U		0.00154	0.00606	1	05/15/2018 13:52	WG110982
1,1-Dichloropropene	U		0.000849	0.00303	1	05/15/2018 13:52	WG110982
1,3-Dichloropropane	U	J4	0.00212	0.00606	1	05/15/2018 13:52	WG110982
cis-1,3-Dichloropropene	U		0.000822	0.00303	1	05/15/2018 13:52	WG110982
trans-1,3-Dichloropropene	U		0.00186	0.00606	1	05/15/2018 13:52	WG110982
trans-1,4-Dichloro-2-butene	U		0.00170	0.00606	1	05/15/2018 13:52	WG110982
2,2-Dichloropropane	U		0.000962	0.00303	1	05/15/2018 13:52	WG110982
Di-isopropyl ether	U		0.000425	0.00121	1	05/15/2018 13:52	WG110982
Ethylbenzene	U		0.000643	0.00303	1	05/15/2018 13:52	WG110982
Hexachloro-1,3-butadiene	U		0.0154	0.0303	1	05/15/2018 13:52	WG110982
2-Hexanone	U		0.0121	0.0303	1	05/15/2018 13:52	WG110982
n-Hexane	U		0.00129	0.00606	1	05/16/2018 11:41	WG110982-1
Iodomethane	U		0.00734	0.0152	1	05/15/2018 13:52	WG110982
Isopropylbenzene	U		0.00105	0.00303	1	05/15/2018 13:52	WG110982
p-Isopropyltoluene	U		0.00283	0.00606	1	05/15/2018 13:52	WG110982
2-Butanone (MEK)	U		0.0152	0.0303	1	05/15/2018 13:52	WG110982
Methylene Chloride	U		0.00805	0.0303	1	05/15/2018 13:52	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0303	1	05/15/2018 13:52	WG110982

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 UJ	<u>JO J4</u>	0.000358	0.00121	1	05/15/2018 13:52	WG110982
Naphthalene	U		0.00378	0.0152	1	05/15/2018 13:52	WG110982
n-Propylbenzene	U		0.00143	0.00606	1	05/15/2018 13:52	WG110982
Styrene	U		0.00331	0.0152	1	05/15/2018 13:52	WG110982
1,1,1,2-Tetrachloroethane	U		0.000606	0.00303	1	05/15/2018 13:52	WG110982
1,1,2,2-Tetrachloroethane	U		0.000473	0.00303	1	05/15/2018 13:52	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000819	0.00303	1	05/15/2018 13:52	WG110982
Tetrachloroethene	U		0.000849	0.00303	1	05/15/2018 13:52	WG110982
Toluene	0.00285 J	<u>J</u>	0.00152	0.00606	1	05/15/2018 13:52	WG110982
1,2,3-Trichlorobenzene	U		0.000758	0.00303	1	05/15/2018 13:52	WG110982
1,2,4-Trichlorobenzene	U		0.00585	0.0152	1	05/15/2018 13:52	WG110982
1,1,1-Trichloroethane	U		0.000334	0.00303	1	05/15/2018 13:52	WG110982
1,1,2-Trichloroethane	U		0.00107	0.00303	1	05/15/2018 13:52	WG110982
Trichloroethene	U		0.000485	0.00121	1	05/15/2018 13:52	WG110982
Trichlorofluoromethane	U		0.000606	0.00303	1	05/15/2018 13:52	WG110982
1,2,3-Trichloropropane	U		0.00619	0.0152	1	05/15/2018 13:52	WG110982
1,2,4-Trimethylbenzene	U		0.00141	0.00606	1	05/15/2018 13:52	WG110982
1,2,3-Trimethylbenzene	U		0.00139	0.00606	1	05/15/2018 13:52	WG110982
1,3,5-Trimethylbenzene	U		0.00131	0.00606	1	05/15/2018 13:52	WG110982
Vinyl acetate	U		0.00427	0.0152	1	05/15/2018 13:52	WG110982
Vinyl chloride	U		0.000828	0.00303	1	05/15/2018 13:52	WG110982
Xylenes, Total	U		0.00580	0.00788	1	05/15/2018 13:52	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 13:52	WG110982
(S) Toluene-d8	102			80.0-120		05/16/2018 11:41	WG110982-1
(S) Dibromofluoromethane	98.1			74.0-131		05/15/2018 13:52	WG110982
(S) Dibromofluoromethane	87.2			74.0-131		05/16/2018 11:41	WG110982-1
(S) 4-Bromofluorobenzene	100			64.0-132		05/15/2018 13:52	WG110982
(S) 4-Bromofluorobenzene	106			64.0-132		05/16/2018 11:41	WG110982-1

- 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	Batch
	%			date / time	
Total Solids	88.1		1	05/15/2018 13:05	WG111243

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		0.0156	0.0284	1	05/15/2018 14:12	WG110982
Acrylonitrile	U		0.00216	0.0142	1	05/15/2018 14:12	WG110982
Benzene	U		0.000454	0.00114	1	05/15/2018 14:12	WG110982
Bromobenzene	U		0.00119	0.0142	1	05/15/2018 14:12	WG110982
Bromodichloromethane	U		0.000895	0.00284	1	05/15/2018 14:12	WG110982
Bromochloromethane	U		0.00128	0.00568	1	05/15/2018 14:12	WG110982
Bromoform	U		0.00679	0.0284	1	05/15/2018 14:12	WG110982
Bromomethane	U		0.00420	0.0142	1	05/15/2018 14:12	WG110982
n-Butylbenzene	U		0.00436	0.0142	1	05/15/2018 14:12	WG110982
sec-Butylbenzene	U		0.00287	0.0142	1	05/15/2018 14:12	WG110982
tert-Butylbenzene	U		0.00176	0.00568	1	05/15/2018 14:12	WG110982
Carbon disulfide	U		0.00461	0.0142	1	05/15/2018 14:12	WG110982
Carbon tetrachloride	U		0.00123	0.00568	1	05/15/2018 14:12	WG110982
Chlorobenzene	U		0.000651	0.00284	1	05/15/2018 14:12	WG110982
Chlorodibromomethane	U		0.000511	0.00284	1	05/15/2018 14:12	WG110982
Chloroethane	U		0.00123	0.00568	1	05/15/2018 14:12	WG110982
Chloroform	U		0.000471	0.00284	1	05/15/2018 14:12	WG110982
Chloromethane	U	UJ	0.00158	0.0142	1	05/15/2018 14:12	WG110982
2-Chlorotoluene	U		0.00104	0.00284	1	05/15/2018 14:12	WG110982
4-Chlorotoluene	U		0.00128	0.00568	1	05/15/2018 14:12	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00579	0.0284	1	05/15/2018 14:12	WG110982
1,2-Dibromoethane	U		0.000596	0.00284	1	05/15/2018 14:12	WG110982
Dibromomethane	U		0.00114	0.00568	1	05/15/2018 14:12	WG110982
1,2-Dichlorobenzene	U		0.00165	0.00568	1	05/15/2018 14:12	WG110982
1,3-Dichlorobenzene	U		0.00193	0.00568	1	05/15/2018 14:12	WG110982
1,4-Dichlorobenzene	U		0.00224	0.00568	1	05/15/2018 14:12	WG110982
Dichlorodifluoromethane	U		0.000929	0.00284	1	05/15/2018 14:12	WG110982
1,1-Dichloroethane	U		0.000653	0.00284	1	05/15/2018 14:12	WG110982
1,2-Dichloroethane	U		0.000539	0.00284	1	05/15/2018 14:12	WG110982
1,1-Dichloroethene	U		0.000568	0.00284	1	05/15/2018 14:12	WG110982
cis-1,2-Dichloroethene	0.151		0.000783	0.00284	1	05/15/2018 14:12	WG110982
trans-1,2-Dichloroethene	0.00373	J	0.00162	0.00568	1	05/15/2018 14:12	WG110982
1,2-Dichloropropane	U		0.00144	0.00568	1	05/15/2018 14:12	WG110982
1,1-Dichloropropene	U		0.000795	0.00284	1	05/15/2018 14:12	WG110982
1,3-Dichloropropane	U		0.00199	0.00568	1	05/15/2018 14:12	WG110982
cis-1,3-Dichloropropene	U		0.000770	0.00284	1	05/15/2018 14:12	WG110982
trans-1,3-Dichloropropene	U		0.00174	0.00568	1	05/15/2018 14:12	WG110982
trans-1,4-Dichloro-2-butene	U		0.00159	0.00568	1	05/15/2018 14:12	WG110982
2,2-Dichloropropane	U		0.000900	0.00284	1	05/15/2018 14:12	WG110982
Di-isopropyl ether	U		0.000397	0.00114	1	05/15/2018 14:12	WG110982
Ethylbenzene	U		0.000602	0.00284	1	05/15/2018 14:12	WG110982
Hexachloro-1,3-butadiene	U		0.0144	0.0284	1	05/15/2018 14:12	WG110982
2-Hexanone	U		0.0114	0.0284	1	05/15/2018 14:12	WG110982
n-Hexane	U		0.00120	0.00568	1	05/16/2018 12:01	WG110982-1
Iodomethane	U		0.00687	0.0142	1	05/15/2018 14:12	WG110982
Isopropylbenzene	U		0.000980	0.00284	1	05/15/2018 14:12	WG110982
p-Isopropyltoluene	U		0.00265	0.00568	1	05/15/2018 14:12	WG110982
2-Butanone (MEK)	U		0.0142	0.0284	1	05/15/2018 14:12	WG110982
Methylene Chloride	U		0.00754	0.0284	1	05/15/2018 14:12	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0284	1	05/15/2018 14:12	WG110982

- 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	UJ JO J4	0.000335	0.00114	1	05/15/2018 14:12	WG1110982
Naphthalene	U		0.00354	0.0142	1	05/15/2018 14:12	WG1110982
n-Propylbenzene	U		0.00134	0.00568	1	05/15/2018 14:12	WG1110982
Styrene	U		0.00310	0.0142	1	05/15/2018 14:12	WG1110982
1,1,1,2-Tetrachloroethane	U		0.000568	0.00284	1	05/15/2018 14:12	WG1110982
1,1,2,2-Tetrachloroethane	U		0.000443	0.00284	1	05/15/2018 14:12	WG1110982
1,1,2-Trichlorotrifluoroethane	U		0.000766	0.00284	1	05/15/2018 14:12	WG1110982
Tetrachloroethene	0.281		0.000795	0.00284	1	05/15/2018 14:12	WG1110982
Toluene	0.00196	J J	0.00142	0.00568	1	05/15/2018 14:12	WG1110982
1,2,3-Trichlorobenzene	U		0.000710	0.00284	1	05/15/2018 14:12	WG1110982
1,2,4-Trichlorobenzene	U		0.00547	0.0142	1	05/15/2018 14:12	WG1110982
1,1,1-Trichloroethane	U		0.000312	0.00284	1	05/15/2018 14:12	WG1110982
1,1,2-Trichloroethane	U		0.00100	0.00284	1	05/15/2018 14:12	WG1110982
Trichloroethene	0.100		0.000454	0.00114	1	05/15/2018 14:12	WG1110982
Trichlorofluoromethane	U		0.000568	0.00284	1	05/15/2018 14:12	WG1110982
1,2,3-Trichloropropane	U		0.00579	0.0142	1	05/15/2018 14:12	WG1110982
1,2,4-Trimethylbenzene	U		0.00132	0.00568	1	05/15/2018 14:12	WG1110982
1,2,3-Trimethylbenzene	U		0.00131	0.00568	1	05/15/2018 14:12	WG1110982
1,3,5-Trimethylbenzene	U		0.00123	0.00568	1	05/15/2018 14:12	WG1110982
Vinyl acetate	U		0.00400	0.0142	1	05/15/2018 14:12	WG1110982
Vinyl chloride	U		0.000775	0.00284	1	05/15/2018 14:12	WG1110982
Xylenes, Total	U		0.00543	0.00738	1	05/15/2018 14:12	WG1110982
(S) Toluene-d8	112			80.0-120		05/15/2018 14:12	WG1110982
(S) Toluene-d8	106			80.0-120		05/16/2018 12:01	WG1110982-1
(S) Dibromofluoromethane	97.2			74.0-131		05/15/2018 14:12	WG1110982
(S) Dibromofluoromethane	89.9			74.0-131		05/16/2018 12:01	WG1110982-1
(S) 4-Bromofluorobenzene	99.7			64.0-132		05/15/2018 14:12	WG1110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 12:01	WG1110982-1

- 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	Batch
	%			date / time	
Total Solids	87.5		1	05/15/2018 10:06	WG111244

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		0.0157	0.0286	1	05/15/2018 14:32	WG110982
Acrylonitrile	U		0.00217	0.0143	1	05/15/2018 14:32	WG110982
Benzene	U		0.000457	0.00114	1	05/15/2018 14:32	WG110982
Bromobenzene	U		0.00120	0.0143	1	05/15/2018 14:32	WG110982
Bromodichloromethane	U		0.000900	0.00286	1	05/15/2018 14:32	WG110982
Bromochloromethane	U		0.00129	0.00571	1	05/15/2018 14:32	WG110982
Bromoform	U		0.00683	0.0286	1	05/15/2018 14:32	WG110982
Bromomethane	U		0.00423	0.0143	1	05/15/2018 14:32	WG110982
n-Butylbenzene	U		0.00439	0.0143	1	05/15/2018 14:32	WG110982
sec-Butylbenzene	U		0.00289	0.0143	1	05/15/2018 14:32	WG110982
tert-Butylbenzene	U		0.00177	0.00571	1	05/15/2018 14:32	WG110982
Carbon disulfide	U		0.00464	0.0143	1	05/15/2018 14:32	WG110982
Carbon tetrachloride	U		0.00123	0.00571	1	05/15/2018 14:32	WG110982
Chlorobenzene	U		0.000655	0.00286	1	05/15/2018 14:32	WG110982
Chlorodibromomethane	U		0.000514	0.00286	1	05/15/2018 14:32	WG110982
Chloroethane	U		0.00123	0.00571	1	05/15/2018 14:32	WG110982
Chloroform	U		0.000474	0.00286	1	05/15/2018 14:32	WG110982
Chloromethane	U	UJ	0.00159	0.0143	1	05/15/2018 14:32	WG110982
2-Chlorotoluene	U		0.00105	0.00286	1	05/15/2018 14:32	WG110982
4-Chlorotoluene	U		0.00129	0.00571	1	05/15/2018 14:32	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00583	0.0286	1	05/15/2018 14:32	WG110982
1,2-Dibromoethane	U		0.000600	0.00286	1	05/15/2018 14:32	WG110982
Dibromomethane	U		0.00114	0.00571	1	05/15/2018 14:32	WG110982
1,2-Dichlorobenzene	U		0.00166	0.00571	1	05/15/2018 14:32	WG110982
1,3-Dichlorobenzene	U		0.00194	0.00571	1	05/15/2018 14:32	WG110982
1,4-Dichlorobenzene	U		0.00225	0.00571	1	05/15/2018 14:32	WG110982
Dichlorodifluoromethane	U		0.000935	0.00286	1	05/15/2018 14:32	WG110982
1,1-Dichloroethane	U		0.000657	0.00286	1	05/15/2018 14:32	WG110982
1,2-Dichloroethane	U		0.000543	0.00286	1	05/15/2018 14:32	WG110982
1,1-Dichloroethene	U		0.000571	0.00286	1	05/15/2018 14:32	WG110982
cis-1,2-Dichloroethene	0.00694		0.000788	0.00286	1	05/15/2018 14:32	WG110982
trans-1,2-Dichloroethene	U		0.00163	0.00571	1	05/15/2018 14:32	WG110982
1,2-Dichloropropane	U		0.00145	0.00571	1	05/15/2018 14:32	WG110982
1,1-Dichloropropene	U		0.000800	0.00286	1	05/15/2018 14:32	WG110982
1,3-Dichloropropane	U	J4	0.00200	0.00571	1	05/15/2018 14:32	WG110982
cis-1,3-Dichloropropene	U		0.000775	0.00286	1	05/15/2018 14:32	WG110982
trans-1,3-Dichloropropene	U		0.00175	0.00571	1	05/15/2018 14:32	WG110982
trans-1,4-Dichloro-2-butene	U		0.00160	0.00571	1	05/15/2018 14:32	WG110982
2,2-Dichloropropane	U		0.000906	0.00286	1	05/15/2018 14:32	WG110982
Di-isopropyl ether	U		0.000400	0.00114	1	05/15/2018 14:32	WG110982
Ethylbenzene	U		0.000606	0.00286	1	05/15/2018 14:32	WG110982
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	05/15/2018 14:32	WG110982
2-Hexanone	U		0.0114	0.0286	1	05/15/2018 14:32	WG110982
n-Hexane	U	UJ	0.00121	0.00571	1	05/16/2018 12:21	WG110982-1
Iodomethane	U		0.00691	0.0143	1	05/15/2018 14:32	WG110982
Isopropylbenzene	U		0.000986	0.00286	1	05/15/2018 14:32	WG110982
p-Isopropyltoluene	U		0.00266	0.00571	1	05/15/2018 14:32	WG110982
2-Butanone (MEK)	U		0.0143	0.0286	1	05/15/2018 14:32	WG110982
Methylene Chloride	U		0.00759	0.0286	1	05/15/2018 14:32	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	05/15/2018 14:32	WG110982

- 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	UJ JO J4	0.000337	0.00114	1	05/15/2018 14:32	WG110982
Naphthalene	U		0.00356	0.0143	1	05/15/2018 14:32	WG110982
n-Propylbenzene	U		0.00135	0.00571	1	05/15/2018 14:32	WG110982
Styrene	U		0.00312	0.0143	1	05/15/2018 14:32	WG110982
1,1,1,2-Tetrachloroethane	U		0.000571	0.00286	1	05/15/2018 14:32	WG110982
1,1,2,2-Tetrachloroethane	U		0.000446	0.00286	1	05/15/2018 14:32	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00286	1	05/15/2018 14:32	WG110982
Tetrachloroethene	0.00276	J J	0.000800	0.00286	1	05/15/2018 14:32	WG110982
Toluene	0.00144	J J	0.00143	0.00571	1	05/15/2018 14:32	WG110982
1,2,3-Trichlorobenzene	U		0.000714	0.00286	1	05/15/2018 14:32	WG110982
1,2,4-Trichlorobenzene	U		0.00551	0.0143	1	05/15/2018 14:32	WG110982
1,1,1-Trichloroethane	U		0.000314	0.00286	1	05/15/2018 14:32	WG110982
1,1,2-Trichloroethane	U		0.00101	0.00286	1	05/15/2018 14:32	WG110982
Trichloroethene	0.000714	J J	0.000457	0.00114	1	05/15/2018 14:32	WG110982
Trichlorofluoromethane	U		0.000571	0.00286	1	05/15/2018 14:32	WG110982
1,2,3-Trichloropropane	U		0.00583	0.0143	1	05/15/2018 14:32	WG110982
1,2,4-Trimethylbenzene	U		0.00133	0.00571	1	05/15/2018 14:32	WG110982
1,2,3-Trimethylbenzene	U		0.00131	0.00571	1	05/15/2018 14:32	WG110982
1,3,5-Trimethylbenzene	U		0.00123	0.00571	1	05/15/2018 14:32	WG110982
Vinyl acetate	U		0.00402	0.0143	1	05/15/2018 14:32	WG110982
Vinyl chloride	U		0.000780	0.00286	1	05/15/2018 14:32	WG110982
Xylenes, Total	U		0.00546	0.00743	1	05/15/2018 14:32	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 14:32	WG110982
(S) Toluene-d8	78.0	J2		80.0-120		05/16/2018 12:21	WG110982-1
(S) Dibromofluoromethane	97.0			74.0-131		05/15/2018 14:32	WG110982
(S) Dibromofluoromethane	92.0			74.0-131		05/16/2018 12:21	WG110982-1
(S) 4-Bromofluorobenzene	99.2			64.0-132		05/15/2018 14:32	WG110982
(S) 4-Bromofluorobenzene	105			64.0-132		05/16/2018 12:21	WG110982-1

- 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	Batch
	%			date / time	
Total Solids	84.3		1	05/15/2018 10:06	WG111244

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		0.0162	0.0297	1	05/15/2018 14:51	WG110982	
Acrylonitrile	U		0.00225	0.0148	1	05/15/2018 14:51	WG110982	
Benzene	U		0.000474	0.00119	1	05/15/2018 14:51	WG110982	
Bromobenzene	U		0.00125	0.0148	1	05/15/2018 14:51	WG110982	
Bromodichloromethane	U		0.000935	0.00297	1	05/15/2018 14:51	WG110982	
Bromochloromethane	U		0.00134	0.00593	1	05/15/2018 14:51	WG110982	
Bromoform	U		0.00709	0.0297	1	05/15/2018 14:51	WG110982	
Bromomethane	U		0.00439	0.0148	1	05/15/2018 14:51	WG110982	
n-Butylbenzene	U		0.00455	0.0148	1	05/15/2018 14:51	WG110982	
sec-Butylbenzene	U		0.00300	0.0148	1	05/15/2018 14:51	WG110982	
tert-Butylbenzene	U		0.00184	0.00593	1	05/15/2018 14:51	WG110982	
Carbon disulfide	U		0.00482	0.0148	1	05/15/2018 14:51	WG110982	
Carbon tetrachloride	U		0.00128	0.00593	1	05/15/2018 14:51	WG110982	
Chlorobenzene	U		0.000680	0.00297	1	05/15/2018 14:51	WG110982	
Chlorodibromomethane	U		0.000534	0.00297	1	05/15/2018 14:51	WG110982	
Chloroethane	U		0.00128	0.00593	1	05/15/2018 14:51	WG110982	
Chloroform	U		0.000492	0.00297	1	05/15/2018 14:51	WG110982	
Chloromethane	U	UJ	JO	0.00165	0.0148	1	05/15/2018 14:51	WG110982
2-Chlorotoluene	U		0.00109	0.00297	1	05/15/2018 14:51	WG110982	
4-Chlorotoluene	U		0.00134	0.00593	1	05/15/2018 14:51	WG110982	
1,2-Dibromo-3-Chloropropane	U		0.00605	0.0297	1	05/15/2018 14:51	WG110982	
1,2-Dibromoethane	U		0.000623	0.00297	1	05/15/2018 14:51	WG110982	
Dibromomethane	U		0.00119	0.00593	1	05/15/2018 14:51	WG110982	
1,2-Dichlorobenzene	U		0.00172	0.00593	1	05/15/2018 14:51	WG110982	
1,3-Dichlorobenzene	U		0.00202	0.00593	1	05/15/2018 14:51	WG110982	
1,4-Dichlorobenzene	U		0.00234	0.00593	1	05/15/2018 14:51	WG110982	
Dichlorodifluoromethane	U		0.000970	0.00297	1	05/15/2018 14:51	WG110982	
1,1-Dichloroethane	U		0.000682	0.00297	1	05/15/2018 14:51	WG110982	
1,2-Dichloroethane	U		0.000563	0.00297	1	05/15/2018 14:51	WG110982	
1,1-Dichloroethene	0.00477		0.000593	0.00297	1	05/15/2018 14:51	WG110982	
cis-1,2-Dichloroethene	1.50		0.000818	0.00297	1	05/15/2018 14:51	WG110982	
trans-1,2-Dichloroethene	0.0221		0.00170	0.00593	1	05/15/2018 14:51	WG110982	
1,2-Dichloropropane	U		0.00151	0.00593	1	05/15/2018 14:51	WG110982	
1,1-Dichloropropene	U		0.000830	0.00297	1	05/15/2018 14:51	WG110982	
1,3-Dichloropropane	U		0.00208	0.00593	1	05/15/2018 14:51	WG110982	
cis-1,3-Dichloropropene	U		0.000804	0.00297	1	05/15/2018 14:51	WG110982	
trans-1,3-Dichloropropene	U		0.00181	0.00593	1	05/15/2018 14:51	WG110982	
trans-1,4-Dichloro-2-butene	U		0.00166	0.00593	1	05/15/2018 14:51	WG110982	
2,2-Dichloropropane	U		0.000941	0.00297	1	05/15/2018 14:51	WG110982	
Di-isopropyl ether	U		0.000415	0.00119	1	05/15/2018 14:51	WG110982	
Ethylbenzene	U		0.000629	0.00297	1	05/15/2018 14:51	WG110982	
Hexachloro-1,3-butadiene	U		0.0151	0.0297	1	05/15/2018 14:51	WG110982	
2-Hexanone	U		0.0119	0.0297	1	05/15/2018 14:51	WG110982	
n-Hexane	U		0.0101	0.0474	8	05/16/2018 14:00	WG110982-1	
Iodomethane	U		0.00718	0.0148	1	05/15/2018 14:51	WG110982	
Isopropylbenzene	U		0.00102	0.00297	1	05/15/2018 14:51	WG110982	
p-Isopropyltoluene	U		0.00276	0.00593	1	05/15/2018 14:51	WG110982	
2-Butanone (MEK)	U		0.0148	0.0297	1	05/15/2018 14:51	WG110982	
Methylene Chloride	U		0.00788	0.0297	1	05/15/2018 14:51	WG110982	
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0297	1	05/15/2018 14:51	WG110982	

- 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	UJ JO J4	0.000350	0.00119	1	05/15/2018 14:51	WG110982
Naphthalene	U		0.00370	0.0148	1	05/15/2018 14:51	WG110982
n-Propylbenzene	U		0.00140	0.00593	1	05/15/2018 14:51	WG110982
Styrene	U		0.00324	0.0148	1	05/15/2018 14:51	WG110982
1,1,1,2-Tetrachloroethane	U		0.000593	0.00297	1	05/15/2018 14:51	WG110982
1,1,2,2-Tetrachloroethane	U		0.000463	0.00297	1	05/15/2018 14:51	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000801	0.00297	1	05/15/2018 14:51	WG110982
Tetrachloroethene	6.27		0.00664	0.0237	8	05/16/2018 14:00	WG110982-1
Toluene	0.00185	J J	0.00148	0.00593	1	05/15/2018 14:51	WG110982
1,2,3-Trichlorobenzene	U		0.000741	0.00297	1	05/15/2018 14:51	WG110982
1,2,4-Trichlorobenzene	U		0.00572	0.0148	1	05/15/2018 14:51	WG110982
1,1,1-Trichloroethane	U		0.000326	0.00297	1	05/15/2018 14:51	WG110982
1,1,2-Trichloroethane	U		0.00105	0.00297	1	05/15/2018 14:51	WG110982
Trichloroethene	1.11		0.000474	0.00119	1	05/15/2018 14:51	WG110982
Trichlorofluoromethane	U		0.000593	0.00297	1	05/15/2018 14:51	WG110982
1,2,3-Trichloropropane	U		0.00605	0.0148	1	05/15/2018 14:51	WG110982
1,2,4-Trimethylbenzene	U		0.00138	0.00593	1	05/15/2018 14:51	WG110982
1,2,3-Trimethylbenzene	U		0.00136	0.00593	1	05/15/2018 14:51	WG110982
1,3,5-Trimethylbenzene	U		0.00128	0.00593	1	05/15/2018 14:51	WG110982
Vinyl acetate	U		0.00418	0.0148	1	05/15/2018 14:51	WG110982
Vinyl chloride	0.0107		0.000810	0.00297	1	05/15/2018 14:51	WG110982
Xylenes, Total	U		0.00567	0.00771	1	05/15/2018 14:51	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 14:51	WG110982
(S) Toluene-d8	102			80.0-120		05/16/2018 14:00	WG110982-1
(S) Dibromofluoromethane	97.7			74.0-131		05/15/2018 14:51	WG110982
(S) Dibromofluoromethane	96.7			74.0-131		05/16/2018 14:00	WG110982-1
(S) 4-Bromofluorobenzene	96.8			64.0-132		05/15/2018 14:51	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 14:00	WG110982-1

- 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	Batch
	%			date / time	
Total Solids	91.8		1	05/15/2018 10:06	WG111244

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	0.0178	J	0.0149	0.0272	1	05/15/2018 15:11	WG110982
Acrylonitrile	U		0.00207	0.0136	1	05/15/2018 15:11	WG110982
Benzene	0.00134		0.000436	0.00109	1	05/15/2018 15:11	WG110982
Bromobenzene	U		0.00114	0.0136	1	05/15/2018 15:11	WG110982
Bromodichloromethane	U		0.000859	0.00272	1	05/15/2018 15:11	WG110982
Bromochloromethane	U		0.00123	0.00545	1	05/15/2018 15:11	WG110982
Bromoform	U		0.00652	0.0272	1	05/15/2018 15:11	WG110982
Bromomethane	U		0.00403	0.0136	1	05/15/2018 15:11	WG110982
n-Butylbenzene	U		0.00418	0.0136	1	05/15/2018 15:11	WG110982
sec-Butylbenzene	U		0.00276	0.0136	1	05/15/2018 15:11	WG110982
tert-Butylbenzene	U		0.00169	0.00545	1	05/15/2018 15:11	WG110982
Carbon disulfide	U		0.00442	0.0136	1	05/15/2018 15:11	WG110982
Carbon tetrachloride	U		0.00118	0.00545	1	05/15/2018 15:11	WG110982
Chlorobenzene	U		0.000624	0.00272	1	05/15/2018 15:11	WG110982
Chlorodibromomethane	U		0.000490	0.00272	1	05/15/2018 15:11	WG110982
Chloroethane	U		0.00118	0.00545	1	05/15/2018 15:11	WG110982
Chloroform	U		0.000452	0.00272	1	05/15/2018 15:11	WG110982
Chloromethane	U	UJ	0.00151	0.0136	1	05/15/2018 15:11	WG110982
2-Chlorotoluene	U		0.00100	0.00272	1	05/15/2018 15:11	WG110982
4-Chlorotoluene	U		0.00123	0.00545	1	05/15/2018 15:11	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0272	1	05/15/2018 15:11	WG110982
1,2-Dibromoethane	U		0.000572	0.00272	1	05/15/2018 15:11	WG110982
Dibromomethane	U		0.00109	0.00545	1	05/15/2018 15:11	WG110982
1,2-Dichlorobenzene	U		0.00158	0.00545	1	05/15/2018 15:11	WG110982
1,3-Dichlorobenzene	U		0.00185	0.00545	1	05/15/2018 15:11	WG110982
1,4-Dichlorobenzene	U		0.00215	0.00545	1	05/15/2018 15:11	WG110982
Dichlorodifluoromethane	U		0.000891	0.00272	1	05/15/2018 15:11	WG110982
1,1-Dichloroethane	U		0.000626	0.00272	1	05/15/2018 15:11	WG110982
1,2-Dichloroethane	U		0.000518	0.00272	1	05/15/2018 15:11	WG110982
1,1-Dichloroethene	0.00255	J	0.000545	0.00272	1	05/15/2018 15:11	WG110982
cis-1,2-Dichloroethene	0.352		0.000752	0.00272	1	05/15/2018 15:11	WG110982
trans-1,2-Dichloroethene	0.00162	J	0.00156	0.00545	1	05/15/2018 15:11	WG110982
1,2-Dichloropropane	U		0.00138	0.00545	1	05/15/2018 15:11	WG110982
1,1-Dichloropropene	U		0.000763	0.00272	1	05/15/2018 15:11	WG110982
1,3-Dichloropropane	U		0.00191	0.00545	1	05/15/2018 15:11	WG110982
cis-1,3-Dichloropropene	U		0.000739	0.00272	1	05/15/2018 15:11	WG110982
trans-1,3-Dichloropropene	U		0.00167	0.00545	1	05/15/2018 15:11	WG110982
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	05/15/2018 15:11	WG110982
2,2-Dichloropropane	U		0.000864	0.00272	1	05/15/2018 15:11	WG110982
Di-isopropyl ether	U		0.000381	0.00109	1	05/15/2018 15:11	WG110982
Ethylbenzene	0.000699	J	0.000577	0.00272	1	05/15/2018 15:11	WG110982
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	05/15/2018 15:11	WG110982
2-Hexanone	U		0.0109	0.0272	1	05/15/2018 15:11	WG110982
n-Hexane	U		0.00115	0.00545	1	05/16/2018 12:40	WG110982-1
Iodomethane	U		0.00659	0.0136	1	05/15/2018 15:11	WG110982
Isopropylbenzene	U		0.000940	0.00272	1	05/15/2018 15:11	WG110982
p-Isopropyltoluene	U		0.00254	0.00545	1	05/15/2018 15:11	WG110982
2-Butanone (MEK)	U		0.0136	0.0272	1	05/15/2018 15:11	WG110982
Methylene Chloride	U		0.00723	0.0272	1	05/15/2018 15:11	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	05/15/2018 15:11	WG110982

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

JC 6/14/18



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	UJ	0.000321	0.00109	1	05/15/2018 15:11	WG110982
Naphthalene	U		0.00340	0.0136	1	05/15/2018 15:11	WG110982
n-Propylbenzene	U		0.00129	0.00545	1	05/15/2018 15:11	WG110982
Styrene	U		0.00297	0.0136	1	05/15/2018 15:11	WG110982
1,1,1,2-Tetrachloroethane	U		0.000545	0.00272	1	05/15/2018 15:11	WG110982
1,1,2,2-Tetrachloroethane	U		0.000425	0.00272	1	05/15/2018 15:11	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000735	0.00272	1	05/15/2018 15:11	WG110982
Tetrachloroethene	0.111		0.000763	0.00272	1	05/16/2018 12:40	WG110982-1
Toluene	0.00595		0.00136	0.00545	1	05/15/2018 15:11	WG110982
1,2,3-Trichlorobenzene	U		0.000681	0.00272	1	05/15/2018 15:11	WG110982
1,2,4-Trichlorobenzene	U		0.00525	0.0136	1	05/15/2018 15:11	WG110982
1,1,1-Trichloroethane	U		0.000300	0.00272	1	05/15/2018 15:11	WG110982
1,1,2-Trichloroethane	U		0.000962	0.00272	1	05/15/2018 15:11	WG110982
Trichloroethene	0.0907		0.000436	0.00109	1	05/15/2018 15:11	WG110982
Trichlorofluoromethane	U		0.000545	0.00272	1	05/15/2018 15:11	WG110982
1,2,3-Trichloropropane	U		0.00556	0.0136	1	05/15/2018 15:11	WG110982
1,2,4-Trimethylbenzene	0.00138	J	0.00126	0.00545	1	05/15/2018 15:11	WG110982
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	05/15/2018 15:11	WG110982
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	05/15/2018 15:11	WG110982
Vinyl acetate	U		0.00384	0.0136	1	05/15/2018 15:11	WG110982
Vinyl chloride	U		0.000744	0.00272	1	05/15/2018 15:11	WG110982
Xylenes, Total	U		0.00521	0.00708	1	05/15/2018 15:11	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 15:11	WG110982
(S) Toluene-d8	100			80.0-120		05/16/2018 12:40	WG110982-1
(S) Dibromofluoromethane	96.8			74.0-131		05/15/2018 15:11	WG110982
(S) Dibromofluoromethane	89.5			74.0-131		05/16/2018 12:40	WG110982-1
(S) 4-Bromofluorobenzene	97.5			64.0-132		05/15/2018 15:11	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 12:40	WG110982-1

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.6		1	05/15/2018 10:06	WG111244

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	0.0208	J J	0.0160	0.0292	1	05/15/2018 15:30	WG110982
Acrylonitrile	U		0.00222	0.0146	1	05/15/2018 15:30	WG110982
Benzene	U		0.000467	0.00117	1	05/15/2018 15:30	WG110982
Bromobenzene	U		0.00123	0.0146	1	05/15/2018 15:30	WG110982
Bromodichloromethane	U		0.000921	0.00292	1	05/15/2018 15:30	WG110982
Bromochloromethane	U		0.00132	0.00584	1	05/15/2018 15:30	WG110982
Bromoform	U		0.00699	0.0292	1	05/15/2018 15:30	WG110982
Bromomethane	U		0.00432	0.0146	1	05/15/2018 15:30	WG110982
n-Butylbenzene	U		0.00449	0.0146	1	05/15/2018 15:30	WG110982
sec-Butylbenzene	U		0.00296	0.0146	1	05/15/2018 15:30	WG110982
tert-Butylbenzene	U		0.00181	0.00584	1	05/15/2018 15:30	WG110982
Carbon disulfide	U		0.00474	0.0146	1	05/15/2018 15:30	WG110982
Carbon tetrachloride	U		0.00126	0.00584	1	05/15/2018 15:30	WG110982
Chlorobenzene	U		0.000669	0.00292	1	05/15/2018 15:30	WG110982
Chlorodibromomethane	U		0.000526	0.00292	1	05/15/2018 15:30	WG110982
Chloroethane	U		0.00126	0.00584	1	05/15/2018 15:30	WG110982
Chloroform	U		0.000485	0.00292	1	05/15/2018 15:30	WG110982
Chloromethane	U	UJ JO	0.00162	0.0146	1	05/15/2018 15:30	WG110982
2-Chlorotoluene	U		0.00107	0.00292	1	05/15/2018 15:30	WG110982
4-Chlorotoluene	U		0.00132	0.00584	1	05/15/2018 15:30	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00596	0.0292	1	05/15/2018 15:30	WG110982
1,2-Dibromoethane	U		0.000613	0.00292	1	05/15/2018 15:30	WG110982
Dibromomethane	U		0.00117	0.00584	1	05/15/2018 15:30	WG110982
1,2-Dichlorobenzene	U		0.00169	0.00584	1	05/15/2018 15:30	WG110982
1,3-Dichlorobenzene	U		0.00199	0.00584	1	05/15/2018 15:30	WG110982
1,4-Dichlorobenzene	U		0.00230	0.00584	1	05/15/2018 15:30	WG110982
Dichlorodifluoromethane	U		0.000956	0.00292	1	05/15/2018 15:30	WG110982
1,1-Dichloroethane	U		0.000672	0.00292	1	05/15/2018 15:30	WG110982
1,2-Dichloroethane	U		0.000555	0.00292	1	05/15/2018 15:30	WG110982
1,1-Dichloroethene	U		0.000584	0.00292	1	05/15/2018 15:30	WG110982
cis-1,2-Dichloroethene	0.00460		0.000806	0.00292	1	05/15/2018 15:30	WG110982
trans-1,2-Dichloroethene	U		0.00167	0.00584	1	05/15/2018 15:30	WG110982
1,2-Dichloropropane	U		0.00148	0.00584	1	05/15/2018 15:30	WG110982
1,1-Dichloropropene	U		0.000818	0.00292	1	05/15/2018 15:30	WG110982
1,3-Dichloropropane	U	J4	0.00204	0.00584	1	05/15/2018 15:30	WG110982
cis-1,3-Dichloropropene	U		0.000792	0.00292	1	05/15/2018 15:30	WG110982
trans-1,3-Dichloropropene	U		0.00179	0.00584	1	05/15/2018 15:30	WG110982
trans-1,4-Dichloro-2-butene	U		0.00164	0.00584	1	05/15/2018 15:30	WG110982
2,2-Dichloropropane	U		0.000926	0.00292	1	05/15/2018 15:30	WG110982
Di-isopropyl ether	U		0.000409	0.00117	1	05/15/2018 15:30	WG110982
Ethylbenzene	U		0.000619	0.00292	1	05/15/2018 15:30	WG110982
Hexachloro-1,3-butadiene	U		0.0148	0.0292	1	05/15/2018 15:30	WG110982
2-Hexanone	U		0.0117	0.0292	1	05/15/2018 15:30	WG110982
n-Hexane	U		0.00124	0.00584	1	05/16/2018 13:01	WG110982-1
Iodomethane	U		0.00707	0.0146	1	05/15/2018 15:30	WG110982
Isopropylbenzene	U		0.00101	0.00292	1	05/15/2018 15:30	WG110982
p-Isopropyltoluene	U		0.00272	0.00584	1	05/15/2018 15:30	WG110982
2-Butanone (MEK)	U		0.0146	0.0292	1	05/15/2018 15:30	WG110982
Methylene Chloride	U		0.00776	0.0292	1	05/15/2018 15:30	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0292	1	05/15/2018 15:30	WG110982

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

JC 6/14/18



Collected date/time: 05/08/18 12:55

L993391

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	UJ	0.000345	0.00117	1	05/15/2018 15:30	WG110982
Naphthalene	U		0.00364	0.0146	1	05/15/2018 15:30	WG110982
n-Propylbenzene	U		0.00138	0.00584	1	05/15/2018 15:30	WG110982
Styrene	U		0.00319	0.0146	1	05/15/2018 15:30	WG110982
1,1,1,2-Tetrachloroethane	U		0.000584	0.00292	1	05/15/2018 15:30	WG110982
1,1,2,2-Tetrachloroethane	U		0.000456	0.00292	1	05/15/2018 15:30	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000789	0.00292	1	05/15/2018 15:30	WG110982
Tetrachloroethene	0.00208	J	0.000818	0.00292	1	05/16/2018 13:01	WG110982-1
Toluene	0.00221	J	0.00146	0.00584	1	05/15/2018 15:30	WG110982
1,2,3-Trichlorobenzene	U		0.000730	0.00292	1	05/15/2018 15:30	WG110982
1,2,4-Trichlorobenzene	U		0.00563	0.0146	1	05/15/2018 15:30	WG110982
1,1,1-Trichloroethane	U		0.000321	0.00292	1	05/15/2018 15:30	WG110982
1,1,2-Trichloroethane	U		0.00103	0.00292	1	05/15/2018 15:30	WG110982
Trichloroethene	0.00150		0.000467	0.00117	1	05/15/2018 15:30	WG110982
Trichlorofluoromethane	U		0.000584	0.00292	1	05/15/2018 15:30	WG110982
1,2,3-Trichloropropane	U		0.00596	0.0146	1	05/15/2018 15:30	WG110982
1,2,4-Trimethylbenzene	U		0.00136	0.00584	1	05/15/2018 15:30	WG110982
1,2,3-Trimethylbenzene	U		0.00134	0.00584	1	05/15/2018 15:30	WG110982
1,3,5-Trimethylbenzene	U		0.00126	0.00584	1	05/15/2018 15:30	WG110982
Vinyl acetate	U		0.00411	0.0146	1	05/15/2018 15:30	WG110982
Vinyl chloride	U		0.000798	0.00292	1	05/15/2018 15:30	WG110982
Xylenes, Total	U		0.00558	0.00759	1	05/15/2018 15:30	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 15:30	WG110982
(S) Toluene-d8	102			80.0-120		05/16/2018 13:01	WG110982-1
(S) Dibromofluoromethane	97.2			74.0-131		05/15/2018 15:30	WG110982
(S) Dibromofluoromethane	91.7			74.0-131		05/16/2018 13:01	WG110982-1
(S) 4-Bromofluorobenzene	99.3			64.0-132		05/15/2018 15:30	WG110982
(S) 4-Bromofluorobenzene	105			64.0-132		05/16/2018 13:01	WG110982-1

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.0		1	05/15/2018 10:06	WG111244

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	0.0176	J	0.0161	0.0294	1	05/15/2018 15:50	WG110982
Acrylonitrile	U		0.00224	0.0147	1	05/15/2018 15:50	WG110982
Benzene	U		0.000471	0.00118	1	05/15/2018 15:50	WG110982
Bromobenzene	U		0.00124	0.0147	1	05/15/2018 15:50	WG110982
Bromodichloromethane	U		0.000927	0.00294	1	05/15/2018 15:50	WG110982
Bromochloromethane	U		0.00133	0.00588	1	05/15/2018 15:50	WG110982
Bromoform	U		0.00704	0.0294	1	05/15/2018 15:50	WG110982
Bromomethane	U		0.00435	0.0147	1	05/15/2018 15:50	WG110982
n-Butylbenzene	U		0.00452	0.0147	1	05/15/2018 15:50	WG110982
sec-Butylbenzene	U		0.00298	0.0147	1	05/15/2018 15:50	WG110982
tert-Butylbenzene	U		0.00182	0.00588	1	05/15/2018 15:50	WG110982
Carbon disulfide	U		0.00478	0.0147	1	05/15/2018 15:50	WG110982
Carbon tetrachloride	U		0.00127	0.00588	1	05/15/2018 15:50	WG110982
Chlorobenzene	U		0.000674	0.00294	1	05/15/2018 15:50	WG110982
Chlorodibromomethane	U		0.000530	0.00294	1	05/15/2018 15:50	WG110982
Chloroethane	U		0.00127	0.00588	1	05/15/2018 15:50	WG110982
Chloroform	U		0.000488	0.00294	1	05/15/2018 15:50	WG110982
Chloromethane	U	UJ	0.00164	0.0147	1	05/15/2018 15:50	WG110982
2-Chlorotoluene	U		0.00108	0.00294	1	05/15/2018 15:50	WG110982
4-Chlorotoluene	U		0.00133	0.00588	1	05/15/2018 15:50	WG110982
1,2-Dibromo-3-Chloropropane	U		0.00600	0.0294	1	05/15/2018 15:50	WG110982
1,2-Dibromoethane	U		0.000618	0.00294	1	05/15/2018 15:50	WG110982
Dibromomethane	U		0.00118	0.00588	1	05/15/2018 15:50	WG110982
1,2-Dichlorobenzene	U		0.00171	0.00588	1	05/15/2018 15:50	WG110982
1,3-Dichlorobenzene	U		0.00200	0.00588	1	05/15/2018 15:50	WG110982
1,4-Dichlorobenzene	U		0.00232	0.00588	1	05/15/2018 15:50	WG110982
Dichlorodifluoromethane	U		0.000963	0.00294	1	05/15/2018 15:50	WG110982
1,1-Dichloroethane	U		0.000677	0.00294	1	05/15/2018 15:50	WG110982
1,2-Dichloroethane	U		0.000559	0.00294	1	05/15/2018 15:50	WG110982
1,1-Dichloroethene	U		0.000588	0.00294	1	05/15/2018 15:50	WG110982
cis-1,2-Dichloroethene	0.00432		0.000812	0.00294	1	05/15/2018 15:50	WG110982
trans-1,2-Dichloroethene	U		0.00168	0.00588	1	05/15/2018 15:50	WG110982
1,2-Dichloropropane	U		0.00149	0.00588	1	05/15/2018 15:50	WG110982
1,1-Dichloropropene	U		0.000824	0.00294	1	05/15/2018 15:50	WG110982
1,3-Dichloropropane	U	J4	0.00206	0.00588	1	05/15/2018 15:50	WG110982
cis-1,3-Dichloropropene	U		0.000798	0.00294	1	05/15/2018 15:50	WG110982
trans-1,3-Dichloropropene	U		0.00180	0.00588	1	05/15/2018 15:50	WG110982
trans-1,4-Dichloro-2-butene	U		0.00165	0.00588	1	05/15/2018 15:50	WG110982
2,2-Dichloropropane	U		0.000933	0.00294	1	05/15/2018 15:50	WG110982
Di-isopropyl ether	U		0.000412	0.00118	1	05/15/2018 15:50	WG110982
Ethylbenzene	U		0.000624	0.00294	1	05/15/2018 15:50	WG110982
Hexachloro-1,3-butadiene	U		0.0149	0.0294	1	05/15/2018 15:50	WG110982
2-Hexanone	U		0.0118	0.0294	1	05/15/2018 15:50	WG110982
n-Hexane	U		0.00125	0.00588	1	05/16/2018 13:20	WG110982-1
Iodomethane	U		0.00712	0.0147	1	05/15/2018 15:50	WG110982
Isopropylbenzene	U		0.00102	0.00294	1	05/15/2018 15:50	WG110982
p-Isopropyltoluene	U		0.00274	0.00588	1	05/15/2018 15:50	WG110982
2-Butanone (MEK)	U		0.0147	0.0294	1	05/15/2018 15:50	WG110982
Methylene Chloride	U		0.00781	0.0294	1	05/15/2018 15:50	WG110982
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0294	1	05/15/2018 15:50	WG110982

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

JC 6/14/18



Collected date/time: 05/08/18 14:28

L993391

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	UJ JO J4	0.000347	0.00118	1	05/15/2018 15:50	WG110982
Naphthalene	U		0.00367	0.0147	1	05/15/2018 15:50	WG110982
n-Propylbenzene	U		0.00139	0.00588	1	05/15/2018 15:50	WG110982
Styrene	U		0.00321	0.0147	1	05/15/2018 15:50	WG110982
1,1,1,2-Tetrachloroethane	U		0.000588	0.00294	1	05/15/2018 15:50	WG110982
1,1,2,2-Tetrachloroethane	U		0.000459	0.00294	1	05/15/2018 15:50	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000794	0.00294	1	05/15/2018 15:50	WG110982
Tetrachloroethene	U		0.000824	0.00294	1	05/16/2018 13:20	WG110982-1
Toluene	0.00240	J J	0.00147	0.00588	1	05/15/2018 15:50	WG110982
1,2,3-Trichlorobenzene	U		0.000736	0.00294	1	05/15/2018 15:50	WG110982
1,2,4-Trichlorobenzene	U		0.00567	0.0147	1	05/15/2018 15:50	WG110982
1,1,1-Trichloroethane	U		0.000324	0.00294	1	05/15/2018 15:50	WG110982
1,1,2-Trichloroethane	U		0.00104	0.00294	1	05/15/2018 15:50	WG110982
Trichloroethene	0.00151		0.000471	0.00118	1	05/15/2018 15:50	WG110982
Trichlorofluoromethane	U		0.000588	0.00294	1	05/15/2018 15:50	WG110982
1,2,3-Trichloropropane	U		0.00600	0.0147	1	05/15/2018 15:50	WG110982
1,2,4-Trimethylbenzene	U		0.00137	0.00588	1	05/15/2018 15:50	WG110982
1,2,3-Trimethylbenzene	U		0.00135	0.00588	1	05/15/2018 15:50	WG110982
1,3,5-Trimethylbenzene	U		0.00127	0.00588	1	05/15/2018 15:50	WG110982
Vinyl acetate	U		0.00414	0.0147	1	05/15/2018 15:50	WG110982
Vinyl chloride	U		0.000804	0.00294	1	05/15/2018 15:50	WG110982
Xylenes, Total	U		0.00563	0.00765	1	05/15/2018 15:50	WG110982
(S) Toluene-d8	113			80.0-120		05/15/2018 15:50	WG110982
(S) Toluene-d8	100			80.0-120		05/16/2018 13:20	WG110982-1
(S) Dibromofluoromethane	96.5			74.0-131		05/15/2018 15:50	WG110982
(S) Dibromofluoromethane	90.6			74.0-131		05/16/2018 13:20	WG110982-1
(S) 4-Bromofluorobenzene	101			64.0-132		05/15/2018 15:50	WG110982
(S) 4-Bromofluorobenzene	106			64.0-132		05/16/2018 13:20	WG110982-1

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	05/15/2018 10:06	WG111244

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		0.0165	0.0301	1	05/15/2018 16:09	WG110982	
Acrylonitrile	U		0.00229	0.0150	1	05/15/2018 16:09	WG110982	
Benzene	U		0.000481	0.00120	1	05/15/2018 16:09	WG110982	
Bromobenzene	U		0.00126	0.0150	1	05/15/2018 16:09	WG110982	
Bromodichloromethane	U		0.000948	0.00301	1	05/15/2018 16:09	WG110982	
Bromochloromethane	U		0.00136	0.00601	1	05/15/2018 16:09	WG110982	
Bromoform	U		0.00719	0.0301	1	05/15/2018 16:09	WG110982	
Bromomethane	U		0.00445	0.0150	1	05/15/2018 16:09	WG110982	
n-Butylbenzene	U		0.00462	0.0150	1	05/15/2018 16:09	WG110982	
sec-Butylbenzene	U		0.00304	0.0150	1	05/15/2018 16:09	WG110982	
tert-Butylbenzene	U		0.00186	0.00601	1	05/15/2018 16:09	WG110982	
Carbon disulfide	U		0.00488	0.0150	1	05/15/2018 16:09	WG110982	
Carbon tetrachloride	U		0.00130	0.00601	1	05/15/2018 16:09	WG110982	
Chlorobenzene	U		0.000689	0.00301	1	05/15/2018 16:09	WG110982	
Chlorodibromomethane	U		0.000541	0.00301	1	05/15/2018 16:09	WG110982	
Chloroethane	U		0.00130	0.00601	1	05/15/2018 16:09	WG110982	
Chloroform	U		0.000499	0.00301	1	05/15/2018 16:09	WG110982	
Chloromethane	U	UJ	JO	0.00167	0.0150	1	05/15/2018 16:09	WG110982
2-Chlorotoluene	U		0.00111	0.00301	1	05/15/2018 16:09	WG110982	
4-Chlorotoluene	U		0.00136	0.00601	1	05/15/2018 16:09	WG110982	
1,2-Dibromo-3-Chloropropane	U		0.00614	0.0301	1	05/15/2018 16:09	WG110982	
1,2-Dibromoethane	U		0.000632	0.00301	1	05/15/2018 16:09	WG110982	
Dibromomethane	U		0.00120	0.00601	1	05/15/2018 16:09	WG110982	
1,2-Dichlorobenzene	U		0.00174	0.00601	1	05/15/2018 16:09	WG110982	
1,3-Dichlorobenzene	U		0.00205	0.00601	1	05/15/2018 16:09	WG110982	
1,4-Dichlorobenzene	U		0.00237	0.00601	1	05/15/2018 16:09	WG110982	
Dichlorodifluoromethane	U		0.000984	0.00301	1	05/15/2018 16:09	WG110982	
1,1-Dichloroethane	U		0.000692	0.00301	1	05/15/2018 16:09	WG110982	
1,2-Dichloroethane	U		0.000571	0.00301	1	05/15/2018 16:09	WG110982	
1,1-Dichloroethene	U		0.000601	0.00301	1	05/15/2018 16:09	WG110982	
cis-1,2-Dichloroethene	0.00506		0.000830	0.00301	1	05/15/2018 16:09	WG110982	
trans-1,2-Dichloroethene	U		0.00172	0.00601	1	05/15/2018 16:09	WG110982	
1,2-Dichloropropane	U		0.00153	0.00601	1	05/15/2018 16:09	WG110982	
1,1-Dichloropropene	U		0.000842	0.00301	1	05/15/2018 16:09	WG110982	
1,3-Dichloropropane	U		J4	0.00211	0.00601	1	05/15/2018 16:09	WG110982
cis-1,3-Dichloropropene	U		0.000816	0.00301	1	05/15/2018 16:09	WG110982	
trans-1,3-Dichloropropene	U		0.00184	0.00601	1	05/15/2018 16:09	WG110982	
trans-1,4-Dichloro-2-butene	U		0.00168	0.00601	1	05/15/2018 16:09	WG110982	
2,2-Dichloropropane	U		0.000954	0.00301	1	05/15/2018 16:09	WG110982	
Di-isopropyl ether	U		0.000421	0.00120	1	05/15/2018 16:09	WG110982	
Ethylbenzene	U		0.000638	0.00301	1	05/15/2018 16:09	WG110982	
Hexachloro-1,3-butadiene	U		0.0153	0.0301	1	05/15/2018 16:09	WG110982	
2-Hexanone	U		0.0120	0.0301	1	05/15/2018 16:09	WG110982	
n-Hexane	U		J4	0.00128	0.00601	1	05/15/2018 16:09	WG110982
Iodomethane	U		0.00728	0.0150	1	05/15/2018 16:09	WG110982	
Isopropylbenzene	U		0.00104	0.00301	1	05/15/2018 16:09	WG110982	
p-Isopropyltoluene	U		0.00280	0.00601	1	05/15/2018 16:09	WG110982	
2-Butanone (MEK)	U		0.0150	0.0301	1	05/15/2018 16:09	WG110982	
Methylene Chloride	U		0.00799	0.0301	1	05/15/2018 16:09	WG110982	
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0301	1	05/15/2018 16:09	WG110982	

- 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	UJ	0.00355	0.00120	1	05/15/2018 16:09	WG110982
Naphthalene	U		0.00375	0.0150	1	05/15/2018 16:09	WG110982
n-Propylbenzene	U		0.00142	0.00601	1	05/15/2018 16:09	WG110982
Styrene	U		0.00328	0.0150	1	05/15/2018 16:09	WG110982
1,1,1,2-Tetrachloroethane	U		0.000601	0.00301	1	05/15/2018 16:09	WG110982
1,1,2,2-Tetrachloroethane	U		0.000469	0.00301	1	05/15/2018 16:09	WG110982
1,1,2-Trichlorotrifluoroethane	U		0.000812	0.00301	1	05/15/2018 16:09	WG110982
Tetrachloroethene	U		0.000842	0.00301	1	05/16/2018 13:40	WG110982-1
Toluene	U		0.00150	0.00601	1	05/15/2018 16:09	WG110982
1,2,3-Trichlorobenzene	U		0.000752	0.00301	1	05/15/2018 16:09	WG110982
1,2,4-Trichlorobenzene	U		0.00580	0.0150	1	05/15/2018 16:09	WG110982
1,1,1-Trichloroethane	U		0.000331	0.00301	1	05/15/2018 16:09	WG110982
1,1,2-Trichloroethane	U		0.00106	0.00301	1	05/15/2018 16:09	WG110982
Trichloroethene	0.00153		0.000481	0.00120	1	05/15/2018 16:09	WG110982
Trichlorofluoromethane	U		0.000601	0.00301	1	05/15/2018 16:09	WG110982
1,2,3-Trichloropropane	U		0.00614	0.0150	1	05/15/2018 16:09	WG110982
1,2,4-Trimethylbenzene	U		0.00140	0.00601	1	05/15/2018 16:09	WG110982
1,2,3-Trimethylbenzene	U		0.00138	0.00601	1	05/15/2018 16:09	WG110982
1,3,5-Trimethylbenzene	U		0.00130	0.00601	1	05/15/2018 16:09	WG110982
Vinyl acetate	U		0.00423	0.0150	1	05/15/2018 16:09	WG110982
Vinyl chloride	U		0.000822	0.00301	1	05/15/2018 16:09	WG110982
Xylenes, Total	U		0.00575	0.00782	1	05/15/2018 16:09	WG110982
(S) Toluene-d8	112			80.0-120		05/15/2018 16:09	WG110982
(S) Toluene-d8	105			80.0-120		05/16/2018 13:40	WG110982-1
(S) Dibromofluoromethane	97.1			74.0-131		05/15/2018 16:09	WG110982
(S) Dibromofluoromethane	91.6			74.0-131		05/16/2018 13:40	WG110982-1
(S) 4-Bromofluorobenzene	99.5			64.0-132		05/15/2018 16:09	WG110982
(S) 4-Bromofluorobenzene	103			64.0-132		05/16/2018 13:40	WG110982-1

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.2		1	05/15/2018 10:06	WG111244

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		0.0155	0.0283	1	05/13/2018 22:01	WG110914
Acrylonitrile	U		0.00215	0.0142	1	05/13/2018 22:01	WG110914
Benzene	U		0.000454	0.00113	1	05/13/2018 22:01	WG110914
Bromobenzene	U		0.00119	0.0142	1	05/13/2018 22:01	WG110914
Bromodichloromethane	U		0.000894	0.00283	1	05/13/2018 22:01	WG110914
Bromochloromethane	U		0.00128	0.00567	1	05/13/2018 22:01	WG110914
Bromoform	U	UJ JO	0.00678	0.0283	1	05/13/2018 22:01	WG110914
Bromomethane	U		0.00420	0.0142	1	05/13/2018 22:01	WG110914
n-Butylbenzene	U		0.00435	0.0142	1	05/13/2018 22:01	WG110914
sec-Butylbenzene	U		0.00287	0.0142	1	05/13/2018 22:01	WG110914
tert-Butylbenzene	U		0.00176	0.00567	1	05/13/2018 22:01	WG110914
Carbon disulfide	U		0.00460	0.0142	1	05/13/2018 22:01	WG110914
Carbon tetrachloride	U		0.00122	0.00567	1	05/13/2018 22:01	WG110914
Chlorobenzene	U		0.000650	0.00283	1	05/13/2018 22:01	WG110914
Chlorodibromomethane	U		0.000510	0.00283	1	05/13/2018 22:01	WG110914
Chloroethane	U		0.00122	0.00567	1	05/13/2018 22:01	WG110914
Chloroform	U		0.000471	0.00283	1	05/13/2018 22:01	WG110914
Chloromethane	U	UJ JO	0.00158	0.0142	1	05/13/2018 22:01	WG110914
2-Chlorotoluene	U		0.00104	0.00283	1	05/13/2018 22:01	WG110914
4-Chlorotoluene	U		0.00128	0.00567	1	05/13/2018 22:01	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00578	0.0283	1	05/13/2018 22:01	WG110914
1,2-Dibromoethane	U		0.000595	0.00283	1	05/13/2018 22:01	WG110914
Dibromomethane	U		0.00113	0.00567	1	05/13/2018 22:01	WG110914
1,2-Dichlorobenzene	U		0.00164	0.00567	1	05/13/2018 22:01	WG110914
1,3-Dichlorobenzene	U		0.00193	0.00567	1	05/13/2018 22:01	WG110914
1,4-Dichlorobenzene	U		0.00223	0.00567	1	05/13/2018 22:01	WG110914
Dichlorodifluoromethane	U	J3	0.000928	0.00283	1	05/13/2018 22:01	WG110914
1,1-Dichloroethane	U		0.000652	0.00283	1	05/13/2018 22:01	WG110914
1,2-Dichloroethane	U		0.000539	0.00283	1	05/13/2018 22:01	WG110914
1,1-Dichloroethene	U		0.000567	0.00283	1	05/13/2018 22:01	WG110914
cis-1,2-Dichloroethene	0.0128		0.000782	0.00283	1	05/13/2018 22:01	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00567	1	05/13/2018 22:01	WG110914
1,2-Dichloropropane	U		0.00144	0.00567	1	05/13/2018 22:01	WG110914
1,1-Dichloropropene	U		0.000794	0.00283	1	05/13/2018 22:01	WG110914
1,3-Dichloropropane	U		0.00198	0.00567	1	05/13/2018 22:01	WG110914
cis-1,3-Dichloropropene	U		0.000769	0.00283	1	05/13/2018 22:01	WG110914
trans-1,3-Dichloropropene	U		0.00173	0.00567	1	05/13/2018 22:01	WG110914
trans-1,4-Dichloro-2-butene	U		0.00159	0.00567	1	05/13/2018 22:01	WG110914
2,2-Dichloropropane	U		0.000899	0.00283	1	05/13/2018 22:01	WG110914
Di-isopropyl ether	U		0.000397	0.00113	1	05/13/2018 22:01	WG110914
Ethylbenzene	U		0.000601	0.00283	1	05/13/2018 22:01	WG110914
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	05/13/2018 22:01	WG110914
2-Hexanone	U		0.0113	0.0283	1	05/13/2018 22:01	WG110914
n-Hexane	0.00297	J JJ4	0.00120	0.00567	1	05/13/2018 22:01	WG110914
Iodomethane	U		0.00686	0.0142	1	05/13/2018 22:01	WG110914
Isopropylbenzene	U		0.000979	0.00283	1	05/13/2018 22:01	WG110914
p-Isopropyltoluene	U		0.00264	0.00567	1	05/13/2018 22:01	WG110914
2-Butanone (MEK)	U		0.0142	0.0283	1	05/13/2018 22:01	WG110914
Methylene Chloride	U		0.00753	0.0283	1	05/13/2018 22:01	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	05/13/2018 22:01	WG110914

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

JC 6/14/18



Collected date/time: 05/08/18 15:30

L993391

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	UJ	0.000335	0.00113	1	05/13/2018 22:01	WG1110914
Naphthalene	U		0.00354	0.0142	1	05/13/2018 22:01	WG1110914
n-Propylbenzene	U	UJ	0.00134	0.00567	1	05/13/2018 22:01	WG1110914
Styrene	U		0.00310	0.0142	1	05/13/2018 22:01	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000567	0.00283	1	05/13/2018 22:01	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000442	0.00283	1	05/13/2018 22:01	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000765	0.00283	1	05/13/2018 22:01	WG1110914
Tetrachloroethene	0.0113		0.000794	0.00283	1	05/13/2018 22:01	WG1110914
Toluene	0.00144	J	0.00142	0.00567	1	05/13/2018 22:01	WG1110914
1,2,3-Trichlorobenzene	U		0.000709	0.00283	1	05/13/2018 22:01	WG1110914
1,2,4-Trichlorobenzene	U		0.00547	0.0142	1	05/13/2018 22:01	WG1110914
1,1,1-Trichloroethane	U		0.000312	0.00283	1	05/13/2018 22:01	WG1110914
1,1,2-Trichloroethane	U		0.00100	0.00283	1	05/13/2018 22:01	WG1110914
Trichloroethene	0.00478		0.000454	0.00113	1	05/13/2018 22:01	WG1110914
Trichlorofluoromethane	U		0.000567	0.00283	1	05/13/2018 22:01	WG1110914
1,2,3-Trichloropropane	U		0.00578	0.0142	1	05/13/2018 22:01	WG1110914
1,2,4-Trimethylbenzene	U		0.00132	0.00567	1	05/13/2018 22:01	WG1110914
1,2,3-Trimethylbenzene	U		0.00130	0.00567	1	05/13/2018 22:01	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00567	1	05/13/2018 22:01	WG1110914
Vinyl acetate	U		0.00399	0.0142	1	05/13/2018 22:01	WG1110914
Vinyl chloride	U		0.000774	0.00283	1	05/13/2018 22:01	WG1110914
Xylenes, Total	U		0.00542	0.00737	1	05/13/2018 22:01	WG1110914
(S) Toluene-d8	114			80.0-120		05/13/2018 22:01	WG1110914
(S) Dibromofluoromethane	94.9			74.0-131		05/13/2018 22:01	WG1110914
(S) 4-Bromofluorobenzene	97.8			64.0-132		05/13/2018 22:01	WG1110914

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

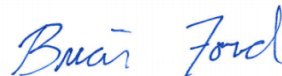
JC 6/14/18

May 17, 2018

PES Environmental, Inc.- WA

Sample Delivery Group: L993557
Samples Received: 05/12/2018
Project Number: 1413.001.05.601
Description: American Linen
Site: 1413.001.05.601
Report To: Brian O'Neal/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-160-125 L993557-01 Solid

Collected by
Karsten Springstead Collected date/time
05/10/18 13:00 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111590	1	05/16/18 13:45	05/16/18 13:55	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/10/18 13:00	05/13/18 22:20	ACG

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW-160-127.5 L993557-02 Solid

Collected by
Karsten Springstead Collected date/time
05/10/18 13:20 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111590	1	05/16/18 13:45	05/16/18 13:55	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/10/18 13:20	05/13/18 22:39	ACG

B-246-6 L993557-03 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 09:00 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111590	1	05/16/18 13:45	05/16/18 13:55	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 09:00	05/13/18 22:59	ACG

B246-11 L993557-04 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 09:10 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111590	1	05/16/18 13:45	05/16/18 13:55	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 09:10	05/13/18 23:18	ACG

B246-15 L993557-05 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 09:15 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 09:15	05/13/18 23:37	ACG

B246-25 L993557-06 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 09:45 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 09:45	05/13/18 23:56	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	20	05/11/18 09:45	05/15/18 13:48	DWR

B246-30 L993557-07 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 09:55 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 09:55	05/14/18 00:16	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	10	05/11/18 09:55	05/15/18 14:08	DWR

SAMPLE SUMMARY



B246-35 L993557-08 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 10:05 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 10:05	05/14/18 00:35	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 10:05	05/15/18 12:51	DWR

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

B246-40 L993557-09 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 10:35 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 10:35	05/14/18 00:55	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	8	05/11/18 10:35	05/15/18 14:27	DWR

B246-43 L993557-10 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 10:40 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 10:40	05/14/18 01:14	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 10:40	05/15/18 13:10	DWR

B246-45 L993557-11 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 10:50 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1.02	05/11/18 10:50	05/15/18 13:29	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1.03	05/11/18 10:50	05/14/18 01:33	ACG

B246-50 L993557-12 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 11:00 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 11:00	05/14/18 01:53	ACG

B246-55 L993557-13 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 11:10 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 11:10	05/14/18 02:12	ACG

B246-60 L993557-14 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 11:45 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111636	1	05/16/18 11:43	05/16/18 11:50	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 11:45	05/14/18 02:31	ACG

SAMPLE SUMMARY



B246-65 L993557-15 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 11:55 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111637	1	05/16/18 10:47	05/16/18 10:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 11:55	05/14/18 02:51	ACG

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

B246-70 L993557-16 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 12:05 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111637	1	05/16/18 10:47	05/16/18 10:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 12:05	05/14/18 03:10	ACG

B246-75 L993557-17 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 12:15 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111637	1	05/16/18 10:47	05/16/18 10:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 12:15	05/14/18 03:30	ACG

B246-80 L993557-18 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 12:25 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111637	1	05/16/18 10:47	05/16/18 10:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1	05/11/18 12:25	05/14/18 03:49	ACG

B246-100 L993557-19 Solid

Collected by
Karsten Springstead Collected date/time
05/11/18 08:00 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1111637	1	05/16/18 10:47	05/16/18 10:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1110914	1.37	05/11/18 08:00	05/14/18 04:08	ACG

TRIP BLANK-051118 L993557-20 GW

Collected by
Karsten Springstead Collected date/time
05/11/18 00:00 Received date/time
05/12/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111989	1	05/16/18 12:31	05/16/18 12:31	ACG



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.

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	Batch
	%			date / time	
Total Solids	87.3		1	05/16/2018 13:55	WG111590

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	0.0198	J	0.0157	0.0286	1	05/13/2018 22:20	WG110914
Acrylonitrile	U		0.00218	0.0143	1	05/13/2018 22:20	WG110914
Benzene	U		0.000458	0.00114	1	05/13/2018 22:20	WG110914
Bromobenzene	U		0.00120	0.0143	1	05/13/2018 22:20	WG110914
Bromodichloromethane	U		0.000902	0.00286	1	05/13/2018 22:20	WG110914
Bromochloromethane	U		0.00129	0.00572	1	05/13/2018 22:20	WG110914
Bromoform	U	JO	0.00685	0.0286	1	05/13/2018 22:20	WG110914
Bromomethane	U		0.00424	0.0143	1	05/13/2018 22:20	WG110914
n-Butylbenzene	U		0.00440	0.0143	1	05/13/2018 22:20	WG110914
sec-Butylbenzene	U		0.00290	0.0143	1	05/13/2018 22:20	WG110914
tert-Butylbenzene	U		0.00177	0.00572	1	05/13/2018 22:20	WG110914
Carbon disulfide	U		0.00465	0.0143	1	05/13/2018 22:20	WG110914
Carbon tetrachloride	U		0.00124	0.00572	1	05/13/2018 22:20	WG110914
Chlorobenzene	U		0.000656	0.00286	1	05/13/2018 22:20	WG110914
Chlorodibromomethane	U		0.000515	0.00286	1	05/13/2018 22:20	WG110914
Chloroethane	U		0.00124	0.00572	1	05/13/2018 22:20	WG110914
Chloroform	U		0.000475	0.00286	1	05/13/2018 22:20	WG110914
Chloromethane	U	JO	0.00159	0.0143	1	05/13/2018 22:20	WG110914
2-Chlorotoluene	U		0.00105	0.00286	1	05/13/2018 22:20	WG110914
4-Chlorotoluene	U		0.00129	0.00572	1	05/13/2018 22:20	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	05/13/2018 22:20	WG110914
1,2-Dibromoethane	U		0.000601	0.00286	1	05/13/2018 22:20	WG110914
Dibromomethane	U		0.00114	0.00572	1	05/13/2018 22:20	WG110914
1,2-Dichlorobenzene	U		0.00166	0.00572	1	05/13/2018 22:20	WG110914
1,3-Dichlorobenzene	U		0.00195	0.00572	1	05/13/2018 22:20	WG110914
1,4-Dichlorobenzene	U		0.00226	0.00572	1	05/13/2018 22:20	WG110914
Dichlorodifluoromethane	U	J3	0.000937	0.00286	1	05/13/2018 22:20	WG110914
1,1-Dichloroethane	U		0.000658	0.00286	1	05/13/2018 22:20	WG110914
1,2-Dichloroethane	U		0.000544	0.00286	1	05/13/2018 22:20	WG110914
1,1-Dichloroethene	U		0.000572	0.00286	1	05/13/2018 22:20	WG110914
cis-1,2-Dichloroethene	0.000832	J	0.000790	0.00286	1	05/13/2018 22:20	WG110914
trans-1,2-Dichloroethene	U		0.00164	0.00572	1	05/13/2018 22:20	WG110914
1,2-Dichloropropane	U		0.00145	0.00572	1	05/13/2018 22:20	WG110914
1,1-Dichloropropene	U		0.000801	0.00286	1	05/13/2018 22:20	WG110914
1,3-Dichloropropane	U		0.00200	0.00572	1	05/13/2018 22:20	WG110914
cis-1,3-Dichloropropene	U		0.000776	0.00286	1	05/13/2018 22:20	WG110914
trans-1,3-Dichloropropene	U		0.00175	0.00572	1	05/13/2018 22:20	WG110914
trans-1,4-Dichloro-2-butene	U		0.00160	0.00572	1	05/13/2018 22:20	WG110914
2,2-Dichloropropane	U		0.000908	0.00286	1	05/13/2018 22:20	WG110914
Di-isopropyl ether	U		0.000401	0.00114	1	05/13/2018 22:20	WG110914
Ethylbenzene	U		0.000607	0.00286	1	05/13/2018 22:20	WG110914
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	05/13/2018 22:20	WG110914
2-Hexanone	U		0.0114	0.0286	1	05/13/2018 22:20	WG110914
n-Hexane	0.00395	J J4	0.00121	0.00572	1	05/13/2018 22:20	WG110914
Iodomethane	U		0.00693	0.0143	1	05/13/2018 22:20	WG110914
Isopropylbenzene	U		0.000988	0.00286	1	05/13/2018 22:20	WG110914
p-Isopropyltoluene	U		0.00267	0.00572	1	05/13/2018 22:20	WG110914
2-Butanone (MEK)	U		0.0143	0.0286	1	05/13/2018 22:20	WG110914
Methylene Chloride	U		0.00760	0.0286	1	05/13/2018 22:20	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	05/13/2018 22:20	WG110914

- 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	<u>JO J4</u>	0.000338	0.00114	1	05/13/2018 22:20	WG1110914
Naphthalene	U		0.00357	0.0143	1	05/13/2018 22:20	WG1110914
n-Propylbenzene	U	<u>J4</u>	0.00135	0.00572	1	05/13/2018 22:20	WG1110914
Styrene	U		0.00313	0.0143	1	05/13/2018 22:20	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000572	0.00286	1	05/13/2018 22:20	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000447	0.00286	1	05/13/2018 22:20	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000773	0.00286	1	05/13/2018 22:20	WG1110914
Tetrachloroethene	0.00262	<u>J</u>	0.000801	0.00286	1	05/13/2018 22:20	WG1110914
Toluene	0.00265	<u>J</u>	0.00143	0.00572	1	05/13/2018 22:20	WG1110914
1,2,3-Trichlorobenzene	U		0.000716	0.00286	1	05/13/2018 22:20	WG1110914
1,2,4-Trichlorobenzene	U		0.00552	0.0143	1	05/13/2018 22:20	WG1110914
1,1,1-Trichloroethane	U		0.000315	0.00286	1	05/13/2018 22:20	WG1110914
1,1,2-Trichloroethane	U		0.00101	0.00286	1	05/13/2018 22:20	WG1110914
Trichloroethene	0.000576	<u>J</u>	0.000458	0.00114	1	05/13/2018 22:20	WG1110914
Trichlorofluoromethane	U		0.000572	0.00286	1	05/13/2018 22:20	WG1110914
1,2,3-Trichloropropane	U		0.00584	0.0143	1	05/13/2018 22:20	WG1110914
1,2,4-Trimethylbenzene	U		0.00133	0.00572	1	05/13/2018 22:20	WG1110914
1,2,3-Trimethylbenzene	U		0.00132	0.00572	1	05/13/2018 22:20	WG1110914
1,3,5-Trimethylbenzene	U		0.00124	0.00572	1	05/13/2018 22:20	WG1110914
Vinyl acetate	U		0.00403	0.0143	1	05/13/2018 22:20	WG1110914
Vinyl chloride	U		0.000782	0.00286	1	05/13/2018 22:20	WG1110914
Xylenes, Total	U		0.00547	0.00744	1	05/13/2018 22:20	WG1110914
(S) Toluene-d8	115			80.0-120		05/13/2018 22:20	WG1110914
(S) Dibromofluoromethane	93.3			74.0-131		05/13/2018 22:20	WG1110914
(S) 4-Bromofluorobenzene	100			64.0-132		05/13/2018 22:20	WG1110914

- 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	86.6		1	05/16/2018 13:55	WG111590

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		0.0158	0.0289	1	05/13/2018 22:39	WG110914
Acrylonitrile	U		0.00219	0.0144	1	05/13/2018 22:39	WG110914
Benzene	U		0.000462	0.00115	1	05/13/2018 22:39	WG110914
Bromobenzene	U		0.00121	0.0144	1	05/13/2018 22:39	WG110914
Bromodichloromethane	U		0.000910	0.00289	1	05/13/2018 22:39	WG110914
Bromochloromethane	U		0.00130	0.00577	1	05/13/2018 22:39	WG110914
Bromoform	U	<u>JO</u>	0.00691	0.0289	1	05/13/2018 22:39	WG110914
Bromomethane	U		0.00427	0.0144	1	05/13/2018 22:39	WG110914
n-Butylbenzene	U		0.00443	0.0144	1	05/13/2018 22:39	WG110914
sec-Butylbenzene	U		0.00292	0.0144	1	05/13/2018 22:39	WG110914
tert-Butylbenzene	U		0.00179	0.00577	1	05/13/2018 22:39	WG110914
Carbon disulfide	U		0.00469	0.0144	1	05/13/2018 22:39	WG110914
Carbon tetrachloride	U		0.00125	0.00577	1	05/13/2018 22:39	WG110914
Chlorobenzene	U		0.000662	0.00289	1	05/13/2018 22:39	WG110914
Chlorodibromomethane	U		0.000520	0.00289	1	05/13/2018 22:39	WG110914
Chloroethane	U		0.00125	0.00577	1	05/13/2018 22:39	WG110914
Chloroform	U		0.000479	0.00289	1	05/13/2018 22:39	WG110914
Chloromethane	U	<u>JO</u>	0.00161	0.0144	1	05/13/2018 22:39	WG110914
2-Chlorotoluene	U		0.00106	0.00289	1	05/13/2018 22:39	WG110914
4-Chlorotoluene	U		0.00130	0.00577	1	05/13/2018 22:39	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00589	0.0289	1	05/13/2018 22:39	WG110914
1,2-Dibromoethane	U		0.000606	0.00289	1	05/13/2018 22:39	WG110914
Dibromomethane	U		0.00115	0.00577	1	05/13/2018 22:39	WG110914
1,2-Dichlorobenzene	U		0.00167	0.00577	1	05/13/2018 22:39	WG110914
1,3-Dichlorobenzene	U		0.00196	0.00577	1	05/13/2018 22:39	WG110914
1,4-Dichlorobenzene	U		0.00227	0.00577	1	05/13/2018 22:39	WG110914
Dichlorodifluoromethane	U	<u>J3</u>	0.000945	0.00289	1	05/13/2018 22:39	WG110914
1,1-Dichloroethane	U		0.000664	0.00289	1	05/13/2018 22:39	WG110914
1,2-Dichloroethane	U		0.000549	0.00289	1	05/13/2018 22:39	WG110914
1,1-Dichloroethene	U		0.000577	0.00289	1	05/13/2018 22:39	WG110914
cis-1,2-Dichloroethene	U		0.000797	0.00289	1	05/13/2018 22:39	WG110914
trans-1,2-Dichloroethene	U		0.00165	0.00577	1	05/13/2018 22:39	WG110914
1,2-Dichloropropane	U		0.00147	0.00577	1	05/13/2018 22:39	WG110914
1,1-Dichloropropene	U		0.000808	0.00289	1	05/13/2018 22:39	WG110914
1,3-Dichloropropane	U		0.00202	0.00577	1	05/13/2018 22:39	WG110914
cis-1,3-Dichloropropene	U		0.000783	0.00289	1	05/13/2018 22:39	WG110914
trans-1,3-Dichloropropene	U		0.00177	0.00577	1	05/13/2018 22:39	WG110914
trans-1,4-Dichloro-2-butene	U		0.00162	0.00577	1	05/13/2018 22:39	WG110914
2,2-Dichloropropane	U		0.000916	0.00289	1	05/13/2018 22:39	WG110914
Di-isopropyl ether	U		0.000404	0.00115	1	05/13/2018 22:39	WG110914
Ethylbenzene	U		0.000612	0.00289	1	05/13/2018 22:39	WG110914
Hexachloro-1,3-butadiene	U		0.0147	0.0289	1	05/13/2018 22:39	WG110914
2-Hexanone	U		0.0115	0.0289	1	05/13/2018 22:39	WG110914
n-Hexane	U	<u>J4</u>	0.00122	0.00577	1	05/13/2018 22:39	WG110914
Iodomethane	U		0.00699	0.0144	1	05/13/2018 22:39	WG110914
Isopropylbenzene	U		0.000997	0.00289	1	05/13/2018 22:39	WG110914
p-Isopropyltoluene	U		0.00269	0.00577	1	05/13/2018 22:39	WG110914
2-Butanone (MEK)	U		0.0144	0.0289	1	05/13/2018 22:39	WG110914
Methylene Chloride	U		0.00767	0.0289	1	05/13/2018 22:39	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0289	1	05/13/2018 22:39	WG110914

- 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	0.000468	J JO J4	0.000341	0.00115	1	05/13/2018 22:39	WG1110914
Naphthalene	U		0.00360	0.0144	1	05/13/2018 22:39	WG1110914
n-Propylbenzene	U	J4	0.00136	0.00577	1	05/13/2018 22:39	WG1110914
Styrene	U		0.00315	0.0144	1	05/13/2018 22:39	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000577	0.00289	1	05/13/2018 22:39	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000450	0.00289	1	05/13/2018 22:39	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000779	0.00289	1	05/13/2018 22:39	WG1110914
Tetrachloroethene	U		0.000808	0.00289	1	05/13/2018 22:39	WG1110914
Toluene	U		0.00144	0.00577	1	05/13/2018 22:39	WG1110914
1,2,3-Trichlorobenzene	U		0.000722	0.00289	1	05/13/2018 22:39	WG1110914
1,2,4-Trichlorobenzene	U		0.00557	0.0144	1	05/13/2018 22:39	WG1110914
1,1,1-Trichloroethane	U		0.000318	0.00289	1	05/13/2018 22:39	WG1110914
1,1,2-Trichloroethane	U		0.00102	0.00289	1	05/13/2018 22:39	WG1110914
Trichloroethene	U		0.000462	0.00115	1	05/13/2018 22:39	WG1110914
Trichlorofluoromethane	U		0.000577	0.00289	1	05/13/2018 22:39	WG1110914
1,2,3-Trichloropropane	U		0.00589	0.0144	1	05/13/2018 22:39	WG1110914
1,2,4-Trimethylbenzene	U		0.00134	0.00577	1	05/13/2018 22:39	WG1110914
1,2,3-Trimethylbenzene	U		0.00133	0.00577	1	05/13/2018 22:39	WG1110914
1,3,5-Trimethylbenzene	U		0.00125	0.00577	1	05/13/2018 22:39	WG1110914
Vinyl acetate	U		0.00406	0.0144	1	05/13/2018 22:39	WG1110914
Vinyl chloride	U		0.000789	0.00289	1	05/13/2018 22:39	WG1110914
Xylenes, Total	U		0.00552	0.00751	1	05/13/2018 22:39	WG1110914
(S) Toluene-d8	117			80.0-120		05/13/2018 22:39	WG1110914
(S) Dibromofluoromethane	91.7			74.0-131		05/13/2018 22:39	WG1110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/13/2018 22:39	WG1110914

- 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	84.2		1	05/16/2018 13:55	WG111590

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		0.0163	0.0297	1	05/13/2018 22:59	WG110914
Acrylonitrile	U		0.00226	0.0148	1	05/13/2018 22:59	WG110914
Benzene	U		0.000475	0.00119	1	05/13/2018 22:59	WG110914
Bromobenzene	U		0.00125	0.0148	1	05/13/2018 22:59	WG110914
Bromodichloromethane	U		0.000935	0.00297	1	05/13/2018 22:59	WG110914
Bromochloromethane	U		0.00134	0.00593	1	05/13/2018 22:59	WG110914
Bromoform	U	J0	0.00710	0.0297	1	05/13/2018 22:59	WG110914
Bromomethane	U		0.00439	0.0148	1	05/13/2018 22:59	WG110914
n-Butylbenzene	U		0.00456	0.0148	1	05/13/2018 22:59	WG110914
sec-Butylbenzene	U		0.00300	0.0148	1	05/13/2018 22:59	WG110914
tert-Butylbenzene	U		0.00184	0.00593	1	05/13/2018 22:59	WG110914
Carbon disulfide	U		0.00482	0.0148	1	05/13/2018 22:59	WG110914
Carbon tetrachloride	U		0.00128	0.00593	1	05/13/2018 22:59	WG110914
Chlorobenzene	U		0.000680	0.00297	1	05/13/2018 22:59	WG110914
Chlorodibromomethane	U		0.000534	0.00297	1	05/13/2018 22:59	WG110914
Chloroethane	U		0.00128	0.00593	1	05/13/2018 22:59	WG110914
Chloroform	U		0.000493	0.00297	1	05/13/2018 22:59	WG110914
Chloromethane	U	J0	0.00165	0.0148	1	05/13/2018 22:59	WG110914
2-Chlorotoluene	U		0.00109	0.00297	1	05/13/2018 22:59	WG110914
4-Chlorotoluene	U		0.00134	0.00593	1	05/13/2018 22:59	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00605	0.0297	1	05/13/2018 22:59	WG110914
1,2-Dibromoethane	U		0.000623	0.00297	1	05/13/2018 22:59	WG110914
Dibromomethane	U		0.00119	0.00593	1	05/13/2018 22:59	WG110914
1,2-Dichlorobenzene	U		0.00172	0.00593	1	05/13/2018 22:59	WG110914
1,3-Dichlorobenzene	U		0.00202	0.00593	1	05/13/2018 22:59	WG110914
1,4-Dichlorobenzene	U		0.00234	0.00593	1	05/13/2018 22:59	WG110914
Dichlorodifluoromethane	U	J3	0.000971	0.00297	1	05/13/2018 22:59	WG110914
1,1-Dichloroethane	U		0.000682	0.00297	1	05/13/2018 22:59	WG110914
1,2-Dichloroethane	U		0.000564	0.00297	1	05/13/2018 22:59	WG110914
1,1-Dichloroethene	U		0.000593	0.00297	1	05/13/2018 22:59	WG110914
cis-1,2-Dichloroethene	0.00324		0.000819	0.00297	1	05/13/2018 22:59	WG110914
trans-1,2-Dichloroethene	U		0.00170	0.00593	1	05/13/2018 22:59	WG110914
1,2-Dichloropropane	U		0.00151	0.00593	1	05/13/2018 22:59	WG110914
1,1-Dichloropropene	U		0.000831	0.00297	1	05/13/2018 22:59	WG110914
1,3-Dichloropropane	U		0.00208	0.00593	1	05/13/2018 22:59	WG110914
cis-1,3-Dichloropropene	U		0.000805	0.00297	1	05/13/2018 22:59	WG110914
trans-1,3-Dichloropropene	U		0.00182	0.00593	1	05/13/2018 22:59	WG110914
trans-1,4-Dichloro-2-butene	U		0.00166	0.00593	1	05/13/2018 22:59	WG110914
2,2-Dichloropropane	U		0.000941	0.00297	1	05/13/2018 22:59	WG110914
Di-isopropyl ether	U		0.000415	0.00119	1	05/13/2018 22:59	WG110914
Ethylbenzene	U		0.000629	0.00297	1	05/13/2018 22:59	WG110914
Hexachloro-1,3-butadiene	U		0.0151	0.0297	1	05/13/2018 22:59	WG110914
2-Hexanone	U		0.0119	0.0297	1	05/13/2018 22:59	WG110914
n-Hexane	U	J4	0.00126	0.00593	1	05/13/2018 22:59	WG110914
Iodomethane	U		0.00718	0.0148	1	05/13/2018 22:59	WG110914
Isopropylbenzene	U		0.00102	0.00297	1	05/13/2018 22:59	WG110914
p-Isopropyltoluene	U		0.00277	0.00593	1	05/13/2018 22:59	WG110914
2-Butanone (MEK)	U		0.0148	0.0297	1	05/13/2018 22:59	WG110914
Methylene Chloride	U		0.00788	0.0297	1	05/13/2018 22:59	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0297	1	05/13/2018 22:59	WG110914

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



Collected date/time: 05/11/18 09:00

L993557

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	0.000453	J JO J4	0.000350	0.00119	1	05/13/2018 22:59	WG1110914
Naphthalene	U		0.00370	0.0148	1	05/13/2018 22:59	WG1110914
n-Propylbenzene	U	J4	0.00140	0.00593	1	05/13/2018 22:59	WG1110914
Styrene	U		0.00324	0.0148	1	05/13/2018 22:59	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000593	0.00297	1	05/13/2018 22:59	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000463	0.00297	1	05/13/2018 22:59	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000801	0.00297	1	05/13/2018 22:59	WG1110914
Tetrachloroethene	0.00396		0.000831	0.00297	1	05/13/2018 22:59	WG1110914
Toluene	U		0.00148	0.00593	1	05/13/2018 22:59	WG1110914
1,2,3-Trichlorobenzene	U		0.000742	0.00297	1	05/13/2018 22:59	WG1110914
1,2,4-Trichlorobenzene	U		0.00572	0.0148	1	05/13/2018 22:59	WG1110914
1,1,1-Trichloroethane	U		0.000326	0.00297	1	05/13/2018 22:59	WG1110914
1,1,2-Trichloroethane	U		0.00105	0.00297	1	05/13/2018 22:59	WG1110914
Trichloroethene	0.00192		0.000475	0.00119	1	05/13/2018 22:59	WG1110914
Trichlorofluoromethane	U		0.000593	0.00297	1	05/13/2018 22:59	WG1110914
1,2,3-Trichloropropane	U		0.00605	0.0148	1	05/13/2018 22:59	WG1110914
1,2,4-Trimethylbenzene	U		0.00138	0.00593	1	05/13/2018 22:59	WG1110914
1,2,3-Trimethylbenzene	U		0.00136	0.00593	1	05/13/2018 22:59	WG1110914
1,3,5-Trimethylbenzene	U		0.00128	0.00593	1	05/13/2018 22:59	WG1110914
Vinyl acetate	U		0.00418	0.0148	1	05/13/2018 22:59	WG1110914
Vinyl chloride	U		0.000811	0.00297	1	05/13/2018 22:59	WG1110914
Xylenes, Total	U		0.00567	0.00772	1	05/13/2018 22:59	WG1110914
(S) Toluene-d8	118			80.0-120		05/13/2018 22:59	WG1110914
(S) Dibromofluoromethane	82.8			74.0-131		05/13/2018 22:59	WG1110914
(S) 4-Bromofluorobenzene	98.7			64.0-132		05/13/2018 22:59	WG1110914

- 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	84.7		1	05/16/2018 13:55	WG111590

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		0.0162	0.0295	1	05/13/2018 23:18	WG110914
Acrylonitrile	U		0.00224	0.0148	1	05/13/2018 23:18	WG110914
Benzene	U		0.000472	0.00118	1	05/13/2018 23:18	WG110914
Bromobenzene	U		0.00124	0.0148	1	05/13/2018 23:18	WG110914
Bromodichloromethane	U		0.000931	0.00295	1	05/13/2018 23:18	WG110914
Bromochloromethane	U		0.00133	0.00590	1	05/13/2018 23:18	WG110914
Bromoform	U	J0	0.00706	0.0295	1	05/13/2018 23:18	WG110914
Bromomethane	U		0.00437	0.0148	1	05/13/2018 23:18	WG110914
n-Butylbenzene	U		0.00453	0.0148	1	05/13/2018 23:18	WG110914
sec-Butylbenzene	U		0.00299	0.0148	1	05/13/2018 23:18	WG110914
tert-Butylbenzene	U		0.00183	0.00590	1	05/13/2018 23:18	WG110914
Carbon disulfide	U		0.00479	0.0148	1	05/13/2018 23:18	WG110914
Carbon tetrachloride	U		0.00128	0.00590	1	05/13/2018 23:18	WG110914
Chlorobenzene	U		0.000677	0.00295	1	05/13/2018 23:18	WG110914
Chlorodibromomethane	U		0.000531	0.00295	1	05/13/2018 23:18	WG110914
Chloroethane	U		0.00128	0.00590	1	05/13/2018 23:18	WG110914
Chloroform	U		0.000490	0.00295	1	05/13/2018 23:18	WG110914
Chloromethane	U	J0	0.00164	0.0148	1	05/13/2018 23:18	WG110914
2-Chlorotoluene	U		0.00109	0.00295	1	05/13/2018 23:18	WG110914
4-Chlorotoluene	U		0.00133	0.00590	1	05/13/2018 23:18	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00602	0.0295	1	05/13/2018 23:18	WG110914
1,2-Dibromoethane	U		0.000620	0.00295	1	05/13/2018 23:18	WG110914
Dibromomethane	U		0.00118	0.00590	1	05/13/2018 23:18	WG110914
1,2-Dichlorobenzene	U		0.00171	0.00590	1	05/13/2018 23:18	WG110914
1,3-Dichlorobenzene	U		0.00201	0.00590	1	05/13/2018 23:18	WG110914
1,4-Dichlorobenzene	U		0.00233	0.00590	1	05/13/2018 23:18	WG110914
Dichlorodifluoromethane	U	J3	0.000966	0.00295	1	05/13/2018 23:18	WG110914
1,1-Dichloroethane	U		0.000679	0.00295	1	05/13/2018 23:18	WG110914
1,2-Dichloroethane	U		0.000561	0.00295	1	05/13/2018 23:18	WG110914
1,1-Dichloroethene	U		0.000590	0.00295	1	05/13/2018 23:18	WG110914
cis-1,2-Dichloroethene	0.00531		0.000815	0.00295	1	05/13/2018 23:18	WG110914
trans-1,2-Dichloroethene	U		0.00169	0.00590	1	05/13/2018 23:18	WG110914
1,2-Dichloropropane	U		0.00150	0.00590	1	05/13/2018 23:18	WG110914
1,1-Dichloropropene	U		0.000827	0.00295	1	05/13/2018 23:18	WG110914
1,3-Dichloropropane	U		0.00207	0.00590	1	05/13/2018 23:18	WG110914
cis-1,3-Dichloropropene	U		0.000801	0.00295	1	05/13/2018 23:18	WG110914
trans-1,3-Dichloropropene	U		0.00181	0.00590	1	05/13/2018 23:18	WG110914
trans-1,4-Dichloro-2-butene	U		0.00165	0.00590	1	05/13/2018 23:18	WG110914
2,2-Dichloropropane	U		0.000936	0.00295	1	05/13/2018 23:18	WG110914
Di-isopropyl ether	U		0.000413	0.00118	1	05/13/2018 23:18	WG110914
Ethylbenzene	U		0.000626	0.00295	1	05/13/2018 23:18	WG110914
Hexachloro-1,3-butadiene	U		0.0150	0.0295	1	05/13/2018 23:18	WG110914
2-Hexanone	U		0.0118	0.0295	1	05/13/2018 23:18	WG110914
n-Hexane	U	J4	0.00125	0.00590	1	05/13/2018 23:18	WG110914
Iodomethane	U		0.00714	0.0148	1	05/13/2018 23:18	WG110914
Isopropylbenzene	U		0.00102	0.00295	1	05/13/2018 23:18	WG110914
p-Isopropyltoluene	U		0.00275	0.00590	1	05/13/2018 23:18	WG110914
2-Butanone (MEK)	U		0.0148	0.0295	1	05/13/2018 23:18	WG110914
Methylene Chloride	U		0.00784	0.0295	1	05/13/2018 23:18	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	05/13/2018 23:18	WG110914

- 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	0.000484	J JO J4	0.000348	0.00118	1	05/13/2018 23:18	WG1110914
Naphthalene	U		0.00368	0.0148	1	05/13/2018 23:18	WG1110914
n-Propylbenzene	U	J4	0.00139	0.00590	1	05/13/2018 23:18	WG1110914
Styrene	U		0.00322	0.0148	1	05/13/2018 23:18	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000590	0.00295	1	05/13/2018 23:18	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000461	0.00295	1	05/13/2018 23:18	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000797	0.00295	1	05/13/2018 23:18	WG1110914
Tetrachloroethene	0.0271		0.000827	0.00295	1	05/13/2018 23:18	WG1110914
Toluene	U		0.00148	0.00590	1	05/13/2018 23:18	WG1110914
1,2,3-Trichlorobenzene	U		0.000738	0.00295	1	05/13/2018 23:18	WG1110914
1,2,4-Trichlorobenzene	U		0.00569	0.0148	1	05/13/2018 23:18	WG1110914
1,1,1-Trichloroethane	U		0.000325	0.00295	1	05/13/2018 23:18	WG1110914
1,1,2-Trichloroethane	U		0.00104	0.00295	1	05/13/2018 23:18	WG1110914
Trichloroethene	0.00638		0.000472	0.00118	1	05/13/2018 23:18	WG1110914
Trichlorofluoromethane	U		0.000590	0.00295	1	05/13/2018 23:18	WG1110914
1,2,3-Trichloropropane	U		0.00602	0.0148	1	05/13/2018 23:18	WG1110914
1,2,4-Trimethylbenzene	U		0.00137	0.00590	1	05/13/2018 23:18	WG1110914
1,2,3-Trimethylbenzene	U		0.00136	0.00590	1	05/13/2018 23:18	WG1110914
1,3,5-Trimethylbenzene	U		0.00128	0.00590	1	05/13/2018 23:18	WG1110914
Vinyl acetate	U		0.00416	0.0148	1	05/13/2018 23:18	WG1110914
Vinyl chloride	U		0.000807	0.00295	1	05/13/2018 23:18	WG1110914
Xylenes, Total	U		0.00564	0.00768	1	05/13/2018 23:18	WG1110914
(S) Toluene-d8	118			80.0-120		05/13/2018 23:18	WG1110914
(S) Dibromofluoromethane	84.0			74.0-131		05/13/2018 23:18	WG1110914
(S) 4-Bromofluorobenzene	102			64.0-132		05/13/2018 23:18	WG1110914

- 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	88.5		1	05/16/2018 11:50	WG111636

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		0.0155	0.0283	1	05/13/2018 23:37	WG110914
Acrylonitrile	U		0.00215	0.0141	1	05/13/2018 23:37	WG110914
Benzene	0.000583	<u>J</u>	0.000452	0.00113	1	05/13/2018 23:37	WG110914
Bromobenzene	U		0.00119	0.0141	1	05/13/2018 23:37	WG110914
Bromodichloromethane	U		0.000890	0.00283	1	05/13/2018 23:37	WG110914
Bromochloromethane	U		0.00128	0.00565	1	05/13/2018 23:37	WG110914
Bromoform	U	<u>JO</u>	0.00676	0.0283	1	05/13/2018 23:37	WG110914
Bromomethane	U		0.00418	0.0141	1	05/13/2018 23:37	WG110914
n-Butylbenzene	U		0.00434	0.0141	1	05/13/2018 23:37	WG110914
sec-Butylbenzene	U		0.00286	0.0141	1	05/13/2018 23:37	WG110914
tert-Butylbenzene	U		0.00175	0.00565	1	05/13/2018 23:37	WG110914
Carbon disulfide	U		0.00459	0.0141	1	05/13/2018 23:37	WG110914
Carbon tetrachloride	U		0.00122	0.00565	1	05/13/2018 23:37	WG110914
Chlorobenzene	U		0.000648	0.00283	1	05/13/2018 23:37	WG110914
Chlorodibromomethane	U		0.000509	0.00283	1	05/13/2018 23:37	WG110914
Chloroethane	U		0.00122	0.00565	1	05/13/2018 23:37	WG110914
Chloroform	U		0.000469	0.00283	1	05/13/2018 23:37	WG110914
Chloromethane	U	<u>JO</u>	0.00157	0.0141	1	05/13/2018 23:37	WG110914
2-Chlorotoluene	U		0.00104	0.00283	1	05/13/2018 23:37	WG110914
4-Chlorotoluene	U		0.00128	0.00565	1	05/13/2018 23:37	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0283	1	05/13/2018 23:37	WG110914
1,2-Dibromoethane	U		0.000593	0.00283	1	05/13/2018 23:37	WG110914
Dibromomethane	U		0.00113	0.00565	1	05/13/2018 23:37	WG110914
1,2-Dichlorobenzene	U		0.00164	0.00565	1	05/13/2018 23:37	WG110914
1,3-Dichlorobenzene	U		0.00192	0.00565	1	05/13/2018 23:37	WG110914
1,4-Dichlorobenzene	U		0.00223	0.00565	1	05/13/2018 23:37	WG110914
Dichlorodifluoromethane	U	<u>J3</u>	0.000924	0.00283	1	05/13/2018 23:37	WG110914
1,1-Dichloroethane	U		0.000650	0.00283	1	05/13/2018 23:37	WG110914
1,2-Dichloroethane	U		0.000537	0.00283	1	05/13/2018 23:37	WG110914
1,1-Dichloroethene	U		0.000565	0.00283	1	05/13/2018 23:37	WG110914
cis-1,2-Dichloroethene	0.0196		0.000780	0.00283	1	05/13/2018 23:37	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00565	1	05/13/2018 23:37	WG110914
1,2-Dichloropropane	U		0.00144	0.00565	1	05/13/2018 23:37	WG110914
1,1-Dichloropropene	U		0.000791	0.00283	1	05/13/2018 23:37	WG110914
1,3-Dichloropropane	U		0.00198	0.00565	1	05/13/2018 23:37	WG110914
cis-1,3-Dichloropropene	U		0.000766	0.00283	1	05/13/2018 23:37	WG110914
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	05/13/2018 23:37	WG110914
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	05/13/2018 23:37	WG110914
2,2-Dichloropropane	U		0.000896	0.00283	1	05/13/2018 23:37	WG110914
Di-isopropyl ether	U		0.000396	0.00113	1	05/13/2018 23:37	WG110914
Ethylbenzene	U		0.000599	0.00283	1	05/13/2018 23:37	WG110914
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	05/13/2018 23:37	WG110914
2-Hexanone	U		0.0113	0.0283	1	05/13/2018 23:37	WG110914
n-Hexane	0.00367	<u>J J4</u>	0.00120	0.00565	1	05/13/2018 23:37	WG110914
Iodomethane	U		0.00684	0.0141	1	05/13/2018 23:37	WG110914
Isopropylbenzene	U		0.000975	0.00283	1	05/13/2018 23:37	WG110914
p-Isopropyltoluene	U		0.00263	0.00565	1	05/13/2018 23:37	WG110914
2-Butanone (MEK)	U		0.0141	0.0283	1	05/13/2018 23:37	WG110914
Methylene Chloride	U		0.00750	0.0283	1	05/13/2018 23:37	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	05/13/2018 23:37	WG110914

- 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	0.000419	J JO J4	0.000333	0.00113	1	05/13/2018 23:37	WG1110914
Naphthalene	U		0.00353	0.0141	1	05/13/2018 23:37	WG1110914
n-Propylbenzene	U	J4	0.00133	0.00565	1	05/13/2018 23:37	WG1110914
Styrene	U		0.00309	0.0141	1	05/13/2018 23:37	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000565	0.00283	1	05/13/2018 23:37	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	05/13/2018 23:37	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000763	0.00283	1	05/13/2018 23:37	WG1110914
Tetrachloroethene	0.0616		0.000791	0.00283	1	05/13/2018 23:37	WG1110914
Toluene	0.00318	J	0.00141	0.00565	1	05/13/2018 23:37	WG1110914
1,2,3-Trichlorobenzene	U		0.000706	0.00283	1	05/13/2018 23:37	WG1110914
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	05/13/2018 23:37	WG1110914
1,1,1-Trichloroethane	U		0.000311	0.00283	1	05/13/2018 23:37	WG1110914
1,1,2-Trichloroethane	U		0.000998	0.00283	1	05/13/2018 23:37	WG1110914
Trichloroethene	0.0132		0.000452	0.00113	1	05/13/2018 23:37	WG1110914
Trichlorofluoromethane	U		0.000565	0.00283	1	05/13/2018 23:37	WG1110914
1,2,3-Trichloropropane	U		0.00576	0.0141	1	05/13/2018 23:37	WG1110914
1,2,4-Trimethylbenzene	U		0.00131	0.00565	1	05/13/2018 23:37	WG1110914
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	05/13/2018 23:37	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	05/13/2018 23:37	WG1110914
Vinyl acetate	U		0.00398	0.0141	1	05/13/2018 23:37	WG1110914
Vinyl chloride	U		0.000772	0.00283	1	05/13/2018 23:37	WG1110914
Xylenes, Total	U		0.00540	0.00735	1	05/13/2018 23:37	WG1110914
(S) Toluene-d8	118			80.0-120		05/13/2018 23:37	WG1110914
(S) Dibromofluoromethane	81.1			74.0-131		05/13/2018 23:37	WG1110914
(S) 4-Bromofluorobenzene	100			64.0-132		05/13/2018 23:37	WG1110914

- 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	89.4		1	05/16/2018 11:50	WG111636

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		0.0153	0.0280	1	05/13/2018 23:56	WG110914
Acrylonitrile	U		0.00212	0.0140	1	05/13/2018 23:56	WG110914
Benzene	U		0.000447	0.00112	1	05/13/2018 23:56	WG110914
Bromobenzene	U		0.00117	0.0140	1	05/13/2018 23:56	WG110914
Bromodichloromethane	U		0.000881	0.00280	1	05/13/2018 23:56	WG110914
Bromochloromethane	U		0.00126	0.00559	1	05/13/2018 23:56	WG110914
Bromoform	U	JO	0.00669	0.0280	1	05/13/2018 23:56	WG110914
Bromomethane	U		0.00414	0.0140	1	05/13/2018 23:56	WG110914
n-Butylbenzene	U		0.00429	0.0140	1	05/13/2018 23:56	WG110914
sec-Butylbenzene	U		0.00283	0.0140	1	05/13/2018 23:56	WG110914
tert-Butylbenzene	U		0.00173	0.00559	1	05/13/2018 23:56	WG110914
Carbon disulfide	U		0.00454	0.0140	1	05/13/2018 23:56	WG110914
Carbon tetrachloride	U		0.00121	0.00559	1	05/13/2018 23:56	WG110914
Chlorobenzene	U		0.000641	0.00280	1	05/13/2018 23:56	WG110914
Chlorodibromomethane	U		0.000503	0.00280	1	05/13/2018 23:56	WG110914
Chloroethane	U		0.00121	0.00559	1	05/13/2018 23:56	WG110914
Chloroform	U		0.000464	0.00280	1	05/13/2018 23:56	WG110914
Chloromethane	U	JO	0.00155	0.0140	1	05/13/2018 23:56	WG110914
2-Chlorotoluene	U		0.00103	0.00280	1	05/13/2018 23:56	WG110914
4-Chlorotoluene	U		0.00126	0.00559	1	05/13/2018 23:56	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0280	1	05/13/2018 23:56	WG110914
1,2-Dibromoethane	U		0.000587	0.00280	1	05/13/2018 23:56	WG110914
Dibromomethane	U		0.00112	0.00559	1	05/13/2018 23:56	WG110914
1,2-Dichlorobenzene	U		0.00162	0.00559	1	05/13/2018 23:56	WG110914
1,3-Dichlorobenzene	U		0.00190	0.00559	1	05/13/2018 23:56	WG110914
1,4-Dichlorobenzene	U		0.00220	0.00559	1	05/13/2018 23:56	WG110914
Dichlorodifluoromethane	U	J3	0.000915	0.00280	1	05/13/2018 23:56	WG110914
1,1-Dichloroethane	U		0.000643	0.00280	1	05/13/2018 23:56	WG110914
1,2-Dichloroethane	U		0.000531	0.00280	1	05/13/2018 23:56	WG110914
1,1-Dichloroethene	0.00214	J	0.000559	0.00280	1	05/13/2018 23:56	WG110914
cis-1,2-Dichloroethene	0.157		0.000772	0.00280	1	05/13/2018 23:56	WG110914
trans-1,2-Dichloroethene	0.00745		0.00160	0.00559	1	05/13/2018 23:56	WG110914
1,2-Dichloropropane	U		0.00142	0.00559	1	05/13/2018 23:56	WG110914
1,1-Dichloropropene	U		0.000783	0.00280	1	05/13/2018 23:56	WG110914
1,3-Dichloropropane	U		0.00196	0.00559	1	05/13/2018 23:56	WG110914
cis-1,3-Dichloropropene	U		0.000758	0.00280	1	05/13/2018 23:56	WG110914
trans-1,3-Dichloropropene	U		0.00171	0.00559	1	05/13/2018 23:56	WG110914
trans-1,4-Dichloro-2-butene	U		0.00157	0.00559	1	05/13/2018 23:56	WG110914
2,2-Dichloropropane	U		0.000887	0.00280	1	05/13/2018 23:56	WG110914
Di-isopropyl ether	U		0.000391	0.00112	1	05/13/2018 23:56	WG110914
Ethylbenzene	U		0.000593	0.00280	1	05/13/2018 23:56	WG110914
Hexachloro-1,3-butadiene	U		0.0142	0.0280	1	05/13/2018 23:56	WG110914
2-Hexanone	U		0.0112	0.0280	1	05/13/2018 23:56	WG110914
n-Hexane	0.00160	J J4	0.00119	0.00559	1	05/13/2018 23:56	WG110914
Iodomethane	U		0.00676	0.0140	1	05/13/2018 23:56	WG110914
Isopropylbenzene	U		0.000965	0.00280	1	05/13/2018 23:56	WG110914
p-Isopropyltoluene	U		0.00261	0.00559	1	05/13/2018 23:56	WG110914
2-Butanone (MEK)	U		0.0140	0.0280	1	05/13/2018 23:56	WG110914
Methylene Chloride	U		0.00742	0.0280	1	05/13/2018 23:56	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0280	1	05/13/2018 23:56	WG110914

- 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	0.000422	J J0 J4	0.000330	0.00112	1	05/13/2018 23:56	WG1110914
Naphthalene	U		0.00349	0.0140	1	05/13/2018 23:56	WG1110914
n-Propylbenzene	U	J4	0.00132	0.00559	1	05/13/2018 23:56	WG1110914
Styrene	U		0.00305	0.0140	1	05/13/2018 23:56	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000559	0.00280	1	05/13/2018 23:56	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000436	0.00280	1	05/13/2018 23:56	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000755	0.00280	1	05/13/2018 23:56	WG1110914
Tetrachloroethene	12.7		0.0157	0.0559	20	05/15/2018 13:48	WG1110914
Toluene	0.00214	J	0.00140	0.00559	1	05/13/2018 23:56	WG1110914
1,2,3-Trichlorobenzene	U		0.000699	0.00280	1	05/13/2018 23:56	WG1110914
1,2,4-Trichlorobenzene	U		0.00539	0.0140	1	05/13/2018 23:56	WG1110914
1,1,1-Trichloroethane	U		0.000307	0.00280	1	05/13/2018 23:56	WG1110914
1,1,2-Trichloroethane	U		0.000987	0.00280	1	05/13/2018 23:56	WG1110914
Trichloroethene	0.448		0.000447	0.00112	1	05/13/2018 23:56	WG1110914
Trichlorofluoromethane	U		0.000559	0.00280	1	05/13/2018 23:56	WG1110914
1,2,3-Trichloropropane	U		0.00570	0.0140	1	05/13/2018 23:56	WG1110914
1,2,4-Trimethylbenzene	U		0.00130	0.00559	1	05/13/2018 23:56	WG1110914
1,2,3-Trimethylbenzene	U		0.00129	0.00559	1	05/13/2018 23:56	WG1110914
1,3,5-Trimethylbenzene	U		0.00121	0.00559	1	05/13/2018 23:56	WG1110914
Vinyl acetate	U		0.00394	0.0140	1	05/13/2018 23:56	WG1110914
Vinyl chloride	U		0.000764	0.00280	1	05/13/2018 23:56	WG1110914
Xylenes, Total	U		0.00534	0.00727	1	05/13/2018 23:56	WG1110914
(S) Toluene-d8	112			80.0-120		05/15/2018 13:48	WG1110914
(S) Toluene-d8	119			80.0-120		05/13/2018 23:56	WG1110914
(S) Dibromofluoromethane	81.0			74.0-131		05/15/2018 13:48	WG1110914
(S) Dibromofluoromethane	80.4			74.0-131		05/13/2018 23:56	WG1110914
(S) 4-Bromofluorobenzene	96.6			64.0-132		05/15/2018 13:48	WG1110914
(S) 4-Bromofluorobenzene	98.9			64.0-132		05/13/2018 23:56	WG1110914

- 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	85.0		1	05/16/2018 11:50	WG111636

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		0.0161	0.0294	1	05/14/2018 00:16	WG110914
Acrylonitrile	U		0.00224	0.0147	1	05/14/2018 00:16	WG110914
Benzene	U		0.000471	0.00118	1	05/14/2018 00:16	WG110914
Bromobenzene	U		0.00124	0.0147	1	05/14/2018 00:16	WG110914
Bromodichloromethane	U		0.000927	0.00294	1	05/14/2018 00:16	WG110914
Bromochloromethane	U		0.00133	0.00588	1	05/14/2018 00:16	WG110914
Bromoform	U	JO	0.00704	0.0294	1	05/14/2018 00:16	WG110914
Bromomethane	U		0.00435	0.0147	1	05/14/2018 00:16	WG110914
n-Butylbenzene	U		0.00452	0.0147	1	05/14/2018 00:16	WG110914
sec-Butylbenzene	U		0.00298	0.0147	1	05/14/2018 00:16	WG110914
tert-Butylbenzene	U		0.00182	0.00588	1	05/14/2018 00:16	WG110914
Carbon disulfide	U		0.00478	0.0147	1	05/14/2018 00:16	WG110914
Carbon tetrachloride	U		0.00127	0.00588	1	05/14/2018 00:16	WG110914
Chlorobenzene	U		0.000674	0.00294	1	05/14/2018 00:16	WG110914
Chlorodibromomethane	U		0.000530	0.00294	1	05/14/2018 00:16	WG110914
Chloroethane	U		0.00127	0.00588	1	05/14/2018 00:16	WG110914
Chloroform	U		0.000488	0.00294	1	05/14/2018 00:16	WG110914
Chloromethane	U	JO	0.00164	0.0147	1	05/14/2018 00:16	WG110914
2-Chlorotoluene	U		0.00108	0.00294	1	05/14/2018 00:16	WG110914
4-Chlorotoluene	U		0.00133	0.00588	1	05/14/2018 00:16	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00600	0.0294	1	05/14/2018 00:16	WG110914
1,2-Dibromoethane	U		0.000618	0.00294	1	05/14/2018 00:16	WG110914
Dibromomethane	U		0.00118	0.00588	1	05/14/2018 00:16	WG110914
1,2-Dichlorobenzene	U		0.00171	0.00588	1	05/14/2018 00:16	WG110914
1,3-Dichlorobenzene	U		0.00200	0.00588	1	05/14/2018 00:16	WG110914
1,4-Dichlorobenzene	U		0.00232	0.00588	1	05/14/2018 00:16	WG110914
Dichlorodifluoromethane	U	J3	0.000963	0.00294	1	05/14/2018 00:16	WG110914
1,1-Dichloroethane	U		0.000677	0.00294	1	05/14/2018 00:16	WG110914
1,2-Dichloroethane	U		0.000559	0.00294	1	05/14/2018 00:16	WG110914
1,1-Dichloroethene	0.00878		0.000588	0.00294	1	05/14/2018 00:16	WG110914
cis-1,2-Dichloroethene	3.36		0.00812	0.0294	10	05/15/2018 14:08	WG110914
trans-1,2-Dichloroethene	0.00860		0.00168	0.00588	1	05/14/2018 00:16	WG110914
1,2-Dichloropropane	U		0.00149	0.00588	1	05/14/2018 00:16	WG110914
1,1-Dichloropropene	U		0.000824	0.00294	1	05/14/2018 00:16	WG110914
1,3-Dichloropropane	U		0.00206	0.00588	1	05/14/2018 00:16	WG110914
cis-1,3-Dichloropropene	U		0.000798	0.00294	1	05/14/2018 00:16	WG110914
trans-1,3-Dichloropropene	U		0.00180	0.00588	1	05/14/2018 00:16	WG110914
trans-1,4-Dichloro-2-butene	U		0.00165	0.00588	1	05/14/2018 00:16	WG110914
2,2-Dichloropropane	U		0.000933	0.00294	1	05/14/2018 00:16	WG110914
Di-isopropyl ether	U		0.000412	0.00118	1	05/14/2018 00:16	WG110914
Ethylbenzene	U		0.000624	0.00294	1	05/14/2018 00:16	WG110914
Hexachloro-1,3-butadiene	U		0.0149	0.0294	1	05/14/2018 00:16	WG110914
2-Hexanone	U		0.0118	0.0294	1	05/14/2018 00:16	WG110914
n-Hexane	0.00348	J J4	0.00125	0.00588	1	05/14/2018 00:16	WG110914
Iodomethane	U		0.00712	0.0147	1	05/14/2018 00:16	WG110914
Isopropylbenzene	U		0.00102	0.00294	1	05/14/2018 00:16	WG110914
p-Isopropyltoluene	U		0.00274	0.00588	1	05/14/2018 00:16	WG110914
2-Butanone (MEK)	U		0.0147	0.0294	1	05/14/2018 00:16	WG110914
Methylene Chloride	U		0.00781	0.0294	1	05/14/2018 00:16	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0294	1	05/14/2018 00:16	WG110914

- 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	0.000538	J JO J4	0.000347	0.00118	1	05/14/2018 00:16	WG1110914
Naphthalene	U		0.00367	0.0147	1	05/14/2018 00:16	WG1110914
n-Propylbenzene	U	J4	0.00139	0.00588	1	05/14/2018 00:16	WG1110914
Styrene	U		0.00321	0.0147	1	05/14/2018 00:16	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000588	0.00294	1	05/14/2018 00:16	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000459	0.00294	1	05/14/2018 00:16	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000794	0.00294	1	05/14/2018 00:16	WG1110914
Tetrachloroethene	6.98		0.00824	0.0294	10	05/15/2018 14:08	WG1110914
Toluene	0.00172	J	0.00147	0.00588	1	05/14/2018 00:16	WG1110914
1,2,3-Trichlorobenzene	U		0.000736	0.00294	1	05/14/2018 00:16	WG1110914
1,2,4-Trichlorobenzene	U		0.00567	0.0147	1	05/14/2018 00:16	WG1110914
1,1,1-Trichloroethane	U		0.000324	0.00294	1	05/14/2018 00:16	WG1110914
1,1,2-Trichloroethane	U		0.00104	0.00294	1	05/14/2018 00:16	WG1110914
Trichloroethene	0.162		0.000471	0.00118	1	05/14/2018 00:16	WG1110914
Trichlorofluoromethane	U		0.000588	0.00294	1	05/14/2018 00:16	WG1110914
1,2,3-Trichloropropane	U		0.00600	0.0147	1	05/14/2018 00:16	WG1110914
1,2,4-Trimethylbenzene	U		0.00137	0.00588	1	05/14/2018 00:16	WG1110914
1,2,3-Trimethylbenzene	U		0.00135	0.00588	1	05/14/2018 00:16	WG1110914
1,3,5-Trimethylbenzene	U		0.00127	0.00588	1	05/14/2018 00:16	WG1110914
Vinyl acetate	U		0.00414	0.0147	1	05/14/2018 00:16	WG1110914
Vinyl chloride	0.0308		0.000804	0.00294	1	05/14/2018 00:16	WG1110914
Xylenes, Total	U		0.00563	0.00765	1	05/14/2018 00:16	WG1110914
(S) Toluene-d8	113			80.0-120		05/15/2018 14:08	WG1110914
(S) Toluene-d8	118			80.0-120		05/14/2018 00:16	WG1110914
(S) Dibromofluoromethane	87.3			74.0-131		05/15/2018 14:08	WG1110914
(S) Dibromofluoromethane	80.5			74.0-131		05/14/2018 00:16	WG1110914
(S) 4-Bromofluorobenzene	97.1			64.0-132		05/15/2018 14:08	WG1110914
(S) 4-Bromofluorobenzene	98.3			64.0-132		05/14/2018 00:16	WG1110914

- 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	05/16/2018 11:50	WG111636

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		0.0158	0.0288	1	05/14/2018 00:35	WG110914
Acrylonitrile	U		0.00219	0.0144	1	05/14/2018 00:35	WG110914
Benzene	U		0.000461	0.00115	1	05/14/2018 00:35	WG110914
Bromobenzene	U		0.00121	0.0144	1	05/14/2018 00:35	WG110914
Bromodichloromethane	U		0.000908	0.00288	1	05/14/2018 00:35	WG110914
Bromochloromethane	U		0.00130	0.00576	1	05/14/2018 00:35	WG110914
Bromoform	U	J0	0.00689	0.0288	1	05/14/2018 00:35	WG110914
Bromomethane	U		0.00427	0.0144	1	05/14/2018 00:35	WG110914
n-Butylbenzene	U		0.00443	0.0144	1	05/14/2018 00:35	WG110914
sec-Butylbenzene	U		0.00292	0.0144	1	05/14/2018 00:35	WG110914
tert-Butylbenzene	U		0.00179	0.00576	1	05/14/2018 00:35	WG110914
Carbon disulfide	U		0.00468	0.0144	1	05/14/2018 00:35	WG110914
Carbon tetrachloride	U		0.00125	0.00576	1	05/14/2018 00:35	WG110914
Chlorobenzene	U		0.000661	0.00288	1	05/14/2018 00:35	WG110914
Chlorodibromomethane	U		0.000519	0.00288	1	05/14/2018 00:35	WG110914
Chloroethane	U		0.00125	0.00576	1	05/14/2018 00:35	WG110914
Chloroform	U		0.000478	0.00288	1	05/14/2018 00:35	WG110914
Chloromethane	U	J0	0.00160	0.0144	1	05/14/2018 00:35	WG110914
2-Chlorotoluene	U		0.00106	0.00288	1	05/14/2018 00:35	WG110914
4-Chlorotoluene	U		0.00130	0.00576	1	05/14/2018 00:35	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00588	0.0288	1	05/14/2018 00:35	WG110914
1,2-Dibromoethane	U		0.000605	0.00288	1	05/14/2018 00:35	WG110914
Dibromomethane	U		0.00115	0.00576	1	05/14/2018 00:35	WG110914
1,2-Dichlorobenzene	U		0.00167	0.00576	1	05/14/2018 00:35	WG110914
1,3-Dichlorobenzene	U		0.00196	0.00576	1	05/14/2018 00:35	WG110914
1,4-Dichlorobenzene	U		0.00227	0.00576	1	05/14/2018 00:35	WG110914
Dichlorodifluoromethane	U	J3	0.000943	0.00288	1	05/14/2018 00:35	WG110914
1,1-Dichloroethane	U		0.000663	0.00288	1	05/14/2018 00:35	WG110914
1,2-Dichloroethane	U		0.000548	0.00288	1	05/14/2018 00:35	WG110914
1,1-Dichloroethene	U		0.000576	0.00288	1	05/14/2018 00:35	WG110914
cis-1,2-Dichloroethene	0.00505		0.000795	0.00288	1	05/15/2018 12:51	WG110914
trans-1,2-Dichloroethene	U		0.00165	0.00576	1	05/14/2018 00:35	WG110914
1,2-Dichloropropane	U		0.00146	0.00576	1	05/14/2018 00:35	WG110914
1,1-Dichloropropene	U		0.000807	0.00288	1	05/14/2018 00:35	WG110914
1,3-Dichloropropane	U		0.00202	0.00576	1	05/14/2018 00:35	WG110914
cis-1,3-Dichloropropene	U		0.000782	0.00288	1	05/14/2018 00:35	WG110914
trans-1,3-Dichloropropene	U		0.00176	0.00576	1	05/14/2018 00:35	WG110914
trans-1,4-Dichloro-2-butene	U		0.00161	0.00576	1	05/14/2018 00:35	WG110914
2,2-Dichloropropane	U		0.000914	0.00288	1	05/14/2018 00:35	WG110914
Di-isopropyl ether	U		0.000403	0.00115	1	05/14/2018 00:35	WG110914
Ethylbenzene	U		0.000611	0.00288	1	05/14/2018 00:35	WG110914
Hexachloro-1,3-butadiene	U		0.0146	0.0288	1	05/14/2018 00:35	WG110914
2-Hexanone	U		0.0115	0.0288	1	05/14/2018 00:35	WG110914
n-Hexane	U	J4	0.00122	0.00576	1	05/14/2018 00:35	WG110914
Iodomethane	U		0.00697	0.0144	1	05/14/2018 00:35	WG110914
Isopropylbenzene	U		0.000995	0.00288	1	05/14/2018 00:35	WG110914
p-Isopropyltoluene	U		0.00269	0.00576	1	05/14/2018 00:35	WG110914
2-Butanone (MEK)	U		0.0144	0.0288	1	05/14/2018 00:35	WG110914
Methylene Chloride	U		0.00765	0.0288	1	05/14/2018 00:35	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0288	1	05/14/2018 00:35	WG110914

- 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	<u>JO J4</u>	0.000340	0.00115	1	05/14/2018 00:35	WG1110914
Naphthalene	U		0.00360	0.0144	1	05/14/2018 00:35	WG1110914
n-Propylbenzene	U	<u>J4</u>	0.00136	0.00576	1	05/14/2018 00:35	WG1110914
Styrene	U		0.00315	0.0144	1	05/14/2018 00:35	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000576	0.00288	1	05/14/2018 00:35	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000450	0.00288	1	05/14/2018 00:35	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000778	0.00288	1	05/14/2018 00:35	WG1110914
Tetrachloroethene	0.00548		0.000807	0.00288	1	05/15/2018 12:51	WG1110914
Toluene	U		0.00144	0.00576	1	05/14/2018 00:35	WG1110914
1,2,3-Trichlorobenzene	U		0.000720	0.00288	1	05/14/2018 00:35	WG1110914
1,2,4-Trichlorobenzene	U		0.00556	0.0144	1	05/14/2018 00:35	WG1110914
1,1,1-Trichloroethane	U		0.000317	0.00288	1	05/14/2018 00:35	WG1110914
1,1,2-Trichloroethane	U		0.00102	0.00288	1	05/14/2018 00:35	WG1110914
Trichloroethene	U		0.000461	0.00115	1	05/14/2018 00:35	WG1110914
Trichlorofluoromethane	U		0.000576	0.00288	1	05/14/2018 00:35	WG1110914
1,2,3-Trichloropropane	U		0.00588	0.0144	1	05/14/2018 00:35	WG1110914
1,2,4-Trimethylbenzene	U		0.00134	0.00576	1	05/14/2018 00:35	WG1110914
1,2,3-Trimethylbenzene	U		0.00133	0.00576	1	05/14/2018 00:35	WG1110914
1,3,5-Trimethylbenzene	U		0.00125	0.00576	1	05/14/2018 00:35	WG1110914
Vinyl acetate	U		0.00406	0.0144	1	05/14/2018 00:35	WG1110914
Vinyl chloride	U		0.000787	0.00288	1	05/14/2018 00:35	WG1110914
Xylenes, Total	U		0.00551	0.00749	1	05/14/2018 00:35	WG1110914
(S) Toluene-d8	115			80.0-120		05/14/2018 00:35	WG1110914
(S) Toluene-d8	103			80.0-120		05/15/2018 12:51	WG1110914
(S) Dibromofluoromethane	97.9			74.0-131		05/14/2018 00:35	WG1110914
(S) Dibromofluoromethane	99.3			74.0-131		05/15/2018 12:51	WG1110914
(S) 4-Bromofluorobenzene	104			64.0-132		05/14/2018 00:35	WG1110914
(S) 4-Bromofluorobenzene	98.4			64.0-132		05/15/2018 12:51	WG1110914

- 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	88.3		1	05/16/2018 11:50	WG111636

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		0.0155	0.0283	1	05/14/2018 00:55	WG110914
Acrylonitrile	U		0.00215	0.0142	1	05/14/2018 00:55	WG110914
Benzene	U		0.000453	0.00113	1	05/14/2018 00:55	WG110914
Bromobenzene	U		0.00119	0.0142	1	05/14/2018 00:55	WG110914
Bromodichloromethane	U		0.000892	0.00283	1	05/14/2018 00:55	WG110914
Bromochloromethane	U		0.00128	0.00566	1	05/14/2018 00:55	WG110914
Bromoform	U	JO	0.00677	0.0283	1	05/14/2018 00:55	WG110914
Bromomethane	U		0.00419	0.0142	1	05/14/2018 00:55	WG110914
n-Butylbenzene	U		0.00435	0.0142	1	05/14/2018 00:55	WG110914
sec-Butylbenzene	U		0.00287	0.0142	1	05/14/2018 00:55	WG110914
tert-Butylbenzene	U		0.00176	0.00566	1	05/14/2018 00:55	WG110914
Carbon disulfide	U		0.00460	0.0142	1	05/14/2018 00:55	WG110914
Carbon tetrachloride	U		0.00122	0.00566	1	05/14/2018 00:55	WG110914
Chlorobenzene	U		0.000649	0.00283	1	05/14/2018 00:55	WG110914
Chlorodibromomethane	U		0.000510	0.00283	1	05/14/2018 00:55	WG110914
Chloroethane	U		0.00122	0.00566	1	05/14/2018 00:55	WG110914
Chloroform	U		0.000470	0.00283	1	05/14/2018 00:55	WG110914
Chloromethane	U	JO	0.00157	0.0142	1	05/14/2018 00:55	WG110914
2-Chlorotoluene	U		0.00104	0.00283	1	05/14/2018 00:55	WG110914
4-Chlorotoluene	U		0.00128	0.00566	1	05/14/2018 00:55	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00578	0.0283	1	05/14/2018 00:55	WG110914
1,2-Dibromoethane	U		0.000595	0.00283	1	05/14/2018 00:55	WG110914
Dibromomethane	U		0.00113	0.00566	1	05/14/2018 00:55	WG110914
1,2-Dichlorobenzene	U		0.00164	0.00566	1	05/14/2018 00:55	WG110914
1,3-Dichlorobenzene	U		0.00193	0.00566	1	05/14/2018 00:55	WG110914
1,4-Dichlorobenzene	U		0.00223	0.00566	1	05/14/2018 00:55	WG110914
Dichlorodifluoromethane	U	J3	0.000926	0.00283	1	05/14/2018 00:55	WG110914
1,1-Dichloroethane	U		0.000651	0.00283	1	05/14/2018 00:55	WG110914
1,2-Dichloroethane	U		0.000538	0.00283	1	05/14/2018 00:55	WG110914
1,1-Dichloroethene	0.00121	J	0.000566	0.00283	1	05/14/2018 00:55	WG110914
cis-1,2-Dichloroethene	0.255		0.000781	0.00283	1	05/14/2018 00:55	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00566	1	05/14/2018 00:55	WG110914
1,2-Dichloropropane	U		0.00144	0.00566	1	05/14/2018 00:55	WG110914
1,1-Dichloropropene	U		0.000793	0.00283	1	05/14/2018 00:55	WG110914
1,3-Dichloropropane	U		0.00198	0.00566	1	05/14/2018 00:55	WG110914
cis-1,3-Dichloropropene	U		0.000768	0.00283	1	05/14/2018 00:55	WG110914
trans-1,3-Dichloropropene	U		0.00173	0.00566	1	05/14/2018 00:55	WG110914
trans-1,4-Dichloro-2-butene	U		0.00159	0.00566	1	05/14/2018 00:55	WG110914
2,2-Dichloropropane	U		0.000898	0.00283	1	05/14/2018 00:55	WG110914
Di-isopropyl ether	U		0.000396	0.00113	1	05/14/2018 00:55	WG110914
Ethylbenzene	U		0.000600	0.00283	1	05/14/2018 00:55	WG110914
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	05/14/2018 00:55	WG110914
2-Hexanone	U		0.0113	0.0283	1	05/14/2018 00:55	WG110914
n-Hexane	0.00171	J J4	0.00120	0.00566	1	05/14/2018 00:55	WG110914
Iodomethane	U		0.00685	0.0142	1	05/14/2018 00:55	WG110914
Isopropylbenzene	U		0.000977	0.00283	1	05/14/2018 00:55	WG110914
p-Isopropyltoluene	U		0.00264	0.00566	1	05/14/2018 00:55	WG110914
2-Butanone (MEK)	U		0.0142	0.0283	1	05/14/2018 00:55	WG110914
Methylene Chloride	U		0.00752	0.0283	1	05/14/2018 00:55	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	05/14/2018 00:55	WG110914

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



Collected date/time: 05/11/18 10:35

L993557

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	0.000376	J J0 J4	0.000334	0.00113	1	05/14/2018 00:55	WG1110914
Naphthalene	U		0.00353	0.0142	1	05/14/2018 00:55	WG1110914
n-Propylbenzene	U	J4	0.00134	0.00566	1	05/14/2018 00:55	WG1110914
Styrene	U		0.00309	0.0142	1	05/14/2018 00:55	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000566	0.00283	1	05/14/2018 00:55	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000442	0.00283	1	05/14/2018 00:55	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000764	0.00283	1	05/14/2018 00:55	WG1110914
Tetrachloroethene	4.07		0.00634	0.0226	8	05/15/2018 14:27	WG1110914
Toluene	U		0.00142	0.00566	1	05/14/2018 00:55	WG1110914
1,2,3-Trichlorobenzene	U		0.000708	0.00283	1	05/14/2018 00:55	WG1110914
1,2,4-Trichlorobenzene	U		0.00546	0.0142	1	05/14/2018 00:55	WG1110914
1,1,1-Trichloroethane	U		0.000311	0.00283	1	05/14/2018 00:55	WG1110914
1,1,2-Trichloroethane	U		0.00100	0.00283	1	05/14/2018 00:55	WG1110914
Trichloroethene	0.280		0.000453	0.00113	1	05/14/2018 00:55	WG1110914
Trichlorofluoromethane	U		0.000566	0.00283	1	05/14/2018 00:55	WG1110914
1,2,3-Trichloropropane	U		0.00578	0.0142	1	05/14/2018 00:55	WG1110914
1,2,4-Trimethylbenzene	U		0.00131	0.00566	1	05/14/2018 00:55	WG1110914
1,2,3-Trimethylbenzene	U		0.00130	0.00566	1	05/14/2018 00:55	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00566	1	05/14/2018 00:55	WG1110914
Vinyl acetate	U		0.00399	0.0142	1	05/14/2018 00:55	WG1110914
Vinyl chloride	0.00735		0.000773	0.00283	1	05/14/2018 00:55	WG1110914
Xylenes, Total	U		0.00541	0.00736	1	05/14/2018 00:55	WG1110914
(S) Toluene-d8	118			80.0-120		05/15/2018 14:27	WG1110914
(S) Toluene-d8	117			80.0-120		05/14/2018 00:55	WG1110914
(S) Dibromofluoromethane	84.1			74.0-131		05/14/2018 00:55	WG1110914
(S) Dibromofluoromethane	84.8			74.0-131		05/15/2018 14:27	WG1110914
(S) 4-Bromofluorobenzene	98.7			64.0-132		05/15/2018 14:27	WG1110914
(S) 4-Bromofluorobenzene	98.4			64.0-132		05/14/2018 00:55	WG1110914

- 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	91.4		1	05/16/2018 11:50	WG111636

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		0.0150	0.0273	1	05/14/2018 01:14	WG110914
Acrylonitrile	U		0.00208	0.0137	1	05/14/2018 01:14	WG110914
Benzene	U		0.000437	0.00109	1	05/14/2018 01:14	WG110914
Bromobenzene	U		0.00115	0.0137	1	05/14/2018 01:14	WG110914
Bromodichloromethane	U		0.000862	0.00273	1	05/14/2018 01:14	WG110914
Bromochloromethane	U		0.00124	0.00547	1	05/14/2018 01:14	WG110914
Bromoform	U	JO	0.00654	0.0273	1	05/14/2018 01:14	WG110914
Bromomethane	U		0.00405	0.0137	1	05/14/2018 01:14	WG110914
n-Butylbenzene	U		0.00420	0.0137	1	05/14/2018 01:14	WG110914
sec-Butylbenzene	U		0.00277	0.0137	1	05/14/2018 01:14	WG110914
tert-Butylbenzene	U		0.00169	0.00547	1	05/14/2018 01:14	WG110914
Carbon disulfide	U		0.00444	0.0137	1	05/14/2018 01:14	WG110914
Carbon tetrachloride	U		0.00118	0.00547	1	05/14/2018 01:14	WG110914
Chlorobenzene	U		0.000627	0.00273	1	05/14/2018 01:14	WG110914
Chlorodibromomethane	U		0.000492	0.00273	1	05/14/2018 01:14	WG110914
Chloroethane	U		0.00118	0.00547	1	05/14/2018 01:14	WG110914
Chloroform	U		0.000454	0.00273	1	05/14/2018 01:14	WG110914
Chloromethane	U	JO	0.00152	0.0137	1	05/14/2018 01:14	WG110914
2-Chlorotoluene	U		0.00101	0.00273	1	05/14/2018 01:14	WG110914
4-Chlorotoluene	U		0.00124	0.00547	1	05/14/2018 01:14	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00558	0.0273	1	05/14/2018 01:14	WG110914
1,2-Dibromoethane	U		0.000574	0.00273	1	05/14/2018 01:14	WG110914
Dibromomethane	U		0.00109	0.00547	1	05/14/2018 01:14	WG110914
1,2-Dichlorobenzene	U		0.00159	0.00547	1	05/14/2018 01:14	WG110914
1,3-Dichlorobenzene	U		0.00186	0.00547	1	05/14/2018 01:14	WG110914
1,4-Dichlorobenzene	U		0.00215	0.00547	1	05/14/2018 01:14	WG110914
Dichlorodifluoromethane	U	J3	0.000895	0.00273	1	05/14/2018 01:14	WG110914
1,1-Dichloroethane	U		0.000629	0.00273	1	05/14/2018 01:14	WG110914
1,2-Dichloroethane	U		0.000519	0.00273	1	05/14/2018 01:14	WG110914
1,1-Dichloroethene	0.00192	J	0.000547	0.00273	1	05/14/2018 01:14	WG110914
cis-1,2-Dichloroethene	0.330		0.000755	0.00273	1	05/14/2018 01:14	WG110914
trans-1,2-Dichloroethene	U		0.00156	0.00547	1	05/14/2018 01:14	WG110914
1,2-Dichloropropane	U		0.00139	0.00547	1	05/14/2018 01:14	WG110914
1,1-Dichloropropene	U		0.000765	0.00273	1	05/14/2018 01:14	WG110914
1,3-Dichloropropane	U		0.00191	0.00547	1	05/14/2018 01:14	WG110914
cis-1,3-Dichloropropene	U		0.000741	0.00273	1	05/14/2018 01:14	WG110914
trans-1,3-Dichloropropene	U		0.00167	0.00547	1	05/14/2018 01:14	WG110914
trans-1,4-Dichloro-2-butene	U		0.00153	0.00547	1	05/14/2018 01:14	WG110914
2,2-Dichloropropane	U		0.000867	0.00273	1	05/14/2018 01:14	WG110914
Di-isopropyl ether	U		0.000383	0.00109	1	05/14/2018 01:14	WG110914
Ethylbenzene	U		0.000580	0.00273	1	05/14/2018 01:14	WG110914
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	05/14/2018 01:14	WG110914
2-Hexanone	U		0.0109	0.0273	1	05/14/2018 01:14	WG110914
n-Hexane	0.00209	J J4	0.00116	0.00547	1	05/14/2018 01:14	WG110914
Iodomethane	U		0.00662	0.0137	1	05/14/2018 01:14	WG110914
Isopropylbenzene	U		0.000944	0.00273	1	05/14/2018 01:14	WG110914
p-Isopropyltoluene	U		0.00255	0.00547	1	05/14/2018 01:14	WG110914
2-Butanone (MEK)	U		0.0137	0.0273	1	05/14/2018 01:14	WG110914
Methylene Chloride	U		0.00726	0.0273	1	05/14/2018 01:14	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	05/14/2018 01:14	WG110914

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



Collected date/time: 05/11/18 10:40

L993557

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	0.000437	J JO J4	0.000323	0.00109	1	05/14/2018 01:14	WG1110914
Naphthalene	U		0.00341	0.0137	1	05/14/2018 01:14	WG1110914
n-Propylbenzene	U	J4	0.00129	0.00547	1	05/14/2018 01:14	WG1110914
Styrene	U		0.00299	0.0137	1	05/14/2018 01:14	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000547	0.00273	1	05/14/2018 01:14	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000426	0.00273	1	05/14/2018 01:14	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000738	0.00273	1	05/14/2018 01:14	WG1110914
Tetrachloroethene	0.00312		0.000765	0.00273	1	05/15/2018 13:10	WG1110914
Toluene	0.00143	J	0.00137	0.00547	1	05/14/2018 01:14	WG1110914
1,2,3-Trichlorobenzene	U		0.000683	0.00273	1	05/14/2018 01:14	WG1110914
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1	05/14/2018 01:14	WG1110914
1,1,1-Trichloroethane	U		0.000301	0.00273	1	05/14/2018 01:14	WG1110914
1,1,2-Trichloroethane	U		0.000966	0.00273	1	05/14/2018 01:14	WG1110914
Trichloroethene	0.00780		0.000437	0.00109	1	05/14/2018 01:14	WG1110914
Trichlorofluoromethane	U		0.000547	0.00273	1	05/14/2018 01:14	WG1110914
1,2,3-Trichloropropane	U		0.00558	0.0137	1	05/14/2018 01:14	WG1110914
1,2,4-Trimethylbenzene	U		0.00127	0.00547	1	05/14/2018 01:14	WG1110914
1,2,3-Trimethylbenzene	U		0.00126	0.00547	1	05/14/2018 01:14	WG1110914
1,3,5-Trimethylbenzene	U		0.00118	0.00547	1	05/14/2018 01:14	WG1110914
Vinyl acetate	U		0.00385	0.0137	1	05/14/2018 01:14	WG1110914
Vinyl chloride	0.00339		0.000747	0.00273	1	05/14/2018 01:14	WG1110914
Xylenes, Total	U		0.00523	0.00711	1	05/14/2018 01:14	WG1110914
(S) Toluene-d8	111			80.0-120		05/15/2018 13:10	WG1110914
(S) Toluene-d8	118			80.0-120		05/14/2018 01:14	WG1110914
(S) Dibromofluoromethane	82.3			74.0-131		05/14/2018 01:14	WG1110914
(S) Dibromofluoromethane	91.5			74.0-131		05/15/2018 13:10	WG1110914
(S) 4-Bromofluorobenzene	95.3			64.0-132		05/15/2018 13:10	WG1110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/14/2018 01:14	WG1110914

- 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	85.4		1	05/16/2018 11:50	WG111636

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	0.0277	J	0.0165	0.0301	1.03	05/14/2018 01:33	WG110914
Acrylonitrile	U		0.00229	0.0151	1.03	05/14/2018 01:33	WG110914
Benzene	U		0.000482	0.00121	1.03	05/14/2018 01:33	WG110914
Bromobenzene	U		0.00126	0.0151	1.03	05/14/2018 01:33	WG110914
Bromodichloromethane	U		0.000951	0.00301	1.03	05/14/2018 01:33	WG110914
Bromochloromethane	U		0.00136	0.00603	1.03	05/14/2018 01:33	WG110914
Bromoform	U	JO	0.00721	0.0301	1.03	05/14/2018 01:33	WG110914
Bromomethane	U		0.00446	0.0151	1.03	05/14/2018 01:33	WG110914
n-Butylbenzene	U		0.00464	0.0151	1.03	05/14/2018 01:33	WG110914
sec-Butylbenzene	U		0.00304	0.0151	1.03	05/14/2018 01:33	WG110914
tert-Butylbenzene	U		0.00187	0.00603	1.03	05/14/2018 01:33	WG110914
Carbon disulfide	U		0.00489	0.0151	1.03	05/14/2018 01:33	WG110914
Carbon tetrachloride	U		0.00130	0.00603	1.03	05/14/2018 01:33	WG110914
Chlorobenzene	U		0.000691	0.00301	1.03	05/14/2018 01:33	WG110914
Chlorodibromomethane	U		0.000543	0.00301	1.03	05/14/2018 01:33	WG110914
Chloroethane	U		0.00130	0.00603	1.03	05/14/2018 01:33	WG110914
Chloroform	U		0.000500	0.00301	1.03	05/14/2018 01:33	WG110914
Chloromethane	U	JO	0.00167	0.0151	1.03	05/14/2018 01:33	WG110914
2-Chlorotoluene	U		0.00111	0.00301	1.03	05/14/2018 01:33	WG110914
4-Chlorotoluene	U		0.00136	0.00603	1.03	05/14/2018 01:33	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00615	0.0301	1.03	05/14/2018 01:33	WG110914
1,2-Dibromoethane	U		0.000633	0.00301	1.03	05/14/2018 01:33	WG110914
Dibromomethane	U		0.00121	0.00603	1.03	05/14/2018 01:33	WG110914
1,2-Dichlorobenzene	U		0.00174	0.00603	1.03	05/14/2018 01:33	WG110914
1,3-Dichlorobenzene	U		0.00205	0.00603	1.03	05/14/2018 01:33	WG110914
1,4-Dichlorobenzene	U		0.00238	0.00603	1.03	05/14/2018 01:33	WG110914
Dichlorodifluoromethane	U	J3	0.000986	0.00301	1.03	05/14/2018 01:33	WG110914
1,1-Dichloroethane	U		0.000693	0.00301	1.03	05/14/2018 01:33	WG110914
1,2-Dichloroethane	U		0.000573	0.00301	1.03	05/14/2018 01:33	WG110914
1,1-Dichloroethene	U		0.000603	0.00301	1.03	05/14/2018 01:33	WG110914
cis-1,2-Dichloroethene	0.00410		0.000832	0.00301	1.03	05/14/2018 01:33	WG110914
trans-1,2-Dichloroethene	U		0.00172	0.00603	1.03	05/14/2018 01:33	WG110914
1,2-Dichloropropane	U		0.00153	0.00603	1.03	05/14/2018 01:33	WG110914
1,1-Dichloropropene	U		0.000844	0.00301	1.03	05/14/2018 01:33	WG110914
1,3-Dichloropropane	U		0.00211	0.00603	1.03	05/14/2018 01:33	WG110914
cis-1,3-Dichloropropene	U		0.000817	0.00301	1.03	05/14/2018 01:33	WG110914
trans-1,3-Dichloropropene	U		0.00185	0.00603	1.03	05/14/2018 01:33	WG110914
trans-1,4-Dichloro-2-butene	U		0.00169	0.00603	1.03	05/14/2018 01:33	WG110914
2,2-Dichloropropane	U		0.000957	0.00301	1.03	05/14/2018 01:33	WG110914
Di-isopropyl ether	U		0.000422	0.00121	1.03	05/14/2018 01:33	WG110914
Ethylbenzene	U		0.000639	0.00301	1.03	05/14/2018 01:33	WG110914
Hexachloro-1,3-butadiene	U		0.0153	0.0301	1.03	05/14/2018 01:33	WG110914
2-Hexanone	U		0.0121	0.0301	1.03	05/14/2018 01:33	WG110914
n-Hexane	0.00858	J4	0.00128	0.00603	1.03	05/14/2018 01:33	WG110914
Iodomethane	U		0.00729	0.0151	1.03	05/14/2018 01:33	WG110914
Isopropylbenzene	U		0.00104	0.00301	1.03	05/14/2018 01:33	WG110914
p-Isopropyltoluene	U		0.00281	0.00603	1.03	05/14/2018 01:33	WG110914
2-Butanone (MEK)	U		0.0151	0.0301	1.03	05/14/2018 01:33	WG110914
Methylene Chloride	U		0.00801	0.0301	1.03	05/14/2018 01:33	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0301	1.03	05/14/2018 01:33	WG110914

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/11/18 10:50

L993557

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	<u>JO J4</u>	0.000356	0.00121	1.03	05/14/2018 01:33	WG110914
Naphthalene	U		0.00376	0.0151	1.03	05/14/2018 01:33	WG110914
n-Propylbenzene	U	<u>J4</u>	0.00143	0.00603	1.03	05/14/2018 01:33	WG110914
Styrene	U		0.00329	0.0151	1.03	05/14/2018 01:33	WG110914
1,1,1,2-Tetrachloroethane	U		0.000603	0.00301	1.03	05/14/2018 01:33	WG110914
1,1,2,2-Tetrachloroethane	U		0.000471	0.00301	1.03	05/14/2018 01:33	WG110914
1,1,2-Trichlorotrifluoroethane	U		0.000814	0.00301	1.03	05/14/2018 01:33	WG110914
Tetrachloroethene	U		0.000836	0.00299	1.02	05/15/2018 13:29	WG110914
Toluene	0.00477	<u>J</u>	0.00151	0.00603	1.03	05/14/2018 01:33	WG110914
1,2,3-Trichlorobenzene	U		0.000754	0.00301	1.03	05/14/2018 01:33	WG110914
1,2,4-Trichlorobenzene	U		0.00581	0.0151	1.03	05/14/2018 01:33	WG110914
1,1,1-Trichloroethane	U		0.000331	0.00301	1.03	05/14/2018 01:33	WG110914
1,1,2-Trichloroethane	U		0.00106	0.00301	1.03	05/14/2018 01:33	WG110914
Trichloroethene	0.000999	<u>J</u>	0.000482	0.00121	1.03	05/14/2018 01:33	WG110914
Trichlorofluoromethane	U		0.000603	0.00301	1.03	05/14/2018 01:33	WG110914
1,2,3-Trichloropropane	U		0.00615	0.0151	1.03	05/14/2018 01:33	WG110914
1,2,4-Trimethylbenzene	U		0.00139	0.00603	1.03	05/14/2018 01:33	WG110914
1,2,3-Trimethylbenzene	U		0.00138	0.00603	1.03	05/14/2018 01:33	WG110914
1,3,5-Trimethylbenzene	U		0.00130	0.00603	1.03	05/14/2018 01:33	WG110914
Vinyl acetate	U		0.00424	0.0151	1.03	05/14/2018 01:33	WG110914
Vinyl chloride	U		0.000823	0.00301	1.03	05/14/2018 01:33	WG110914
Xylenes, Total	U		0.00576	0.00784	1.03	05/14/2018 01:33	WG110914
(S) Toluene-d8	104			80.0-120		05/15/2018 13:29	WG110914
(S) Toluene-d8	120			80.0-120		05/14/2018 01:33	WG110914
(S) Dibromofluoromethane	80.4			74.0-131		05/15/2018 13:29	WG110914
(S) Dibromofluoromethane	81.0			74.0-131		05/14/2018 01:33	WG110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/14/2018 01:33	WG110914
(S) 4-Bromofluorobenzene	95.8			64.0-132		05/15/2018 13:29	WG110914

- 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	88.9		1	05/16/2018 11:50	WG111636

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		0.0154	0.0281	1	05/14/2018 01:53	WG110914
Acrylonitrile	U		0.00214	0.0141	1	05/14/2018 01:53	WG110914
Benzene	U		0.000450	0.00113	1	05/14/2018 01:53	WG110914
Bromobenzene	U		0.00118	0.0141	1	05/14/2018 01:53	WG110914
Bromodichloromethane	U		0.000887	0.00281	1	05/14/2018 01:53	WG110914
Bromochloromethane	U		0.00127	0.00563	1	05/14/2018 01:53	WG110914
Bromoform	U	JO	0.00673	0.0281	1	05/14/2018 01:53	WG110914
Bromomethane	U		0.00416	0.0141	1	05/14/2018 01:53	WG110914
n-Butylbenzene	U		0.00432	0.0141	1	05/14/2018 01:53	WG110914
sec-Butylbenzene	U		0.00285	0.0141	1	05/14/2018 01:53	WG110914
tert-Butylbenzene	U		0.00174	0.00563	1	05/14/2018 01:53	WG110914
Carbon disulfide	U		0.00457	0.0141	1	05/14/2018 01:53	WG110914
Carbon tetrachloride	U		0.00122	0.00563	1	05/14/2018 01:53	WG110914
Chlorobenzene	U		0.000645	0.00281	1	05/14/2018 01:53	WG110914
Chlorodibromomethane	U		0.000506	0.00281	1	05/14/2018 01:53	WG110914
Chloroethane	U		0.00122	0.00563	1	05/14/2018 01:53	WG110914
Chloroform	U		0.000467	0.00281	1	05/14/2018 01:53	WG110914
Chloromethane	U	JO	0.00156	0.0141	1	05/14/2018 01:53	WG110914
2-Chlorotoluene	U		0.00104	0.00281	1	05/14/2018 01:53	WG110914
4-Chlorotoluene	U		0.00127	0.00563	1	05/14/2018 01:53	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00574	0.0281	1	05/14/2018 01:53	WG110914
1,2-Dibromoethane	U		0.000591	0.00281	1	05/14/2018 01:53	WG110914
Dibromomethane	U		0.00113	0.00563	1	05/14/2018 01:53	WG110914
1,2-Dichlorobenzene	U		0.00163	0.00563	1	05/14/2018 01:53	WG110914
1,3-Dichlorobenzene	U		0.00191	0.00563	1	05/14/2018 01:53	WG110914
1,4-Dichlorobenzene	U		0.00222	0.00563	1	05/14/2018 01:53	WG110914
Dichlorodifluoromethane	U	J3	0.000920	0.00281	1	05/14/2018 01:53	WG110914
1,1-Dichloroethane	U		0.000647	0.00281	1	05/14/2018 01:53	WG110914
1,2-Dichloroethane	U		0.000534	0.00281	1	05/14/2018 01:53	WG110914
1,1-Dichloroethene	U		0.000563	0.00281	1	05/14/2018 01:53	WG110914
cis-1,2-Dichloroethene	0.00150	J	0.000776	0.00281	1	05/14/2018 01:53	WG110914
trans-1,2-Dichloroethene	U		0.00161	0.00563	1	05/14/2018 01:53	WG110914
1,2-Dichloropropane	U		0.00143	0.00563	1	05/14/2018 01:53	WG110914
1,1-Dichloropropene	U		0.000788	0.00281	1	05/14/2018 01:53	WG110914
1,3-Dichloropropane	U		0.00197	0.00563	1	05/14/2018 01:53	WG110914
cis-1,3-Dichloropropene	U		0.000763	0.00281	1	05/14/2018 01:53	WG110914
trans-1,3-Dichloropropene	U		0.00172	0.00563	1	05/14/2018 01:53	WG110914
trans-1,4-Dichloro-2-butene	U		0.00158	0.00563	1	05/14/2018 01:53	WG110914
2,2-Dichloropropane	U		0.000892	0.00281	1	05/14/2018 01:53	WG110914
Di-isopropyl ether	U		0.000394	0.00113	1	05/14/2018 01:53	WG110914
Ethylbenzene	U		0.000596	0.00281	1	05/14/2018 01:53	WG110914
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	05/14/2018 01:53	WG110914
2-Hexanone	U		0.0113	0.0281	1	05/14/2018 01:53	WG110914
n-Hexane	0.00197	J J4	0.00119	0.00563	1	05/14/2018 01:53	WG110914
Iodomethane	U		0.00681	0.0141	1	05/14/2018 01:53	WG110914
Isopropylbenzene	U		0.000971	0.00281	1	05/14/2018 01:53	WG110914
p-Isopropyltoluene	U		0.00262	0.00563	1	05/14/2018 01:53	WG110914
2-Butanone (MEK)	U		0.0141	0.0281	1	05/14/2018 01:53	WG110914
Methylene Chloride	U		0.00747	0.0281	1	05/14/2018 01:53	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0281	1	05/14/2018 01:53	WG110914

- 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	<u>JO J4</u>	0.000332	0.00113	1	05/14/2018 01:53	WG1110914
Naphthalene	U		0.00351	0.0141	1	05/14/2018 01:53	WG1110914
n-Propylbenzene	U	<u>J4</u>	0.00133	0.00563	1	05/14/2018 01:53	WG1110914
Styrene	U		0.00307	0.0141	1	05/14/2018 01:53	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000563	0.00281	1	05/14/2018 01:53	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000439	0.00281	1	05/14/2018 01:53	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000759	0.00281	1	05/14/2018 01:53	WG1110914
Tetrachloroethene	0.00576		0.000788	0.00281	1	05/14/2018 01:53	WG1110914
Toluene	0.00215	<u>J</u>	0.00141	0.00563	1	05/14/2018 01:53	WG1110914
1,2,3-Trichlorobenzene	U		0.000703	0.00281	1	05/14/2018 01:53	WG1110914
1,2,4-Trichlorobenzene	U		0.00542	0.0141	1	05/14/2018 01:53	WG1110914
1,1,1-Trichloroethane	U		0.000309	0.00281	1	05/14/2018 01:53	WG1110914
1,1,2-Trichloroethane	U		0.000993	0.00281	1	05/14/2018 01:53	WG1110914
Trichloroethene	0.000767	<u>J</u>	0.000450	0.00113	1	05/14/2018 01:53	WG1110914
Trichlorofluoromethane	U		0.000563	0.00281	1	05/14/2018 01:53	WG1110914
1,2,3-Trichloropropane	U		0.00574	0.0141	1	05/14/2018 01:53	WG1110914
1,2,4-Trimethylbenzene	U		0.00131	0.00563	1	05/14/2018 01:53	WG1110914
1,2,3-Trimethylbenzene	U		0.00129	0.00563	1	05/14/2018 01:53	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00563	1	05/14/2018 01:53	WG1110914
Vinyl acetate	U		0.00396	0.0141	1	05/14/2018 01:53	WG1110914
Vinyl chloride	U		0.000768	0.00281	1	05/14/2018 01:53	WG1110914
Xylenes, Total	U		0.00538	0.00731	1	05/14/2018 01:53	WG1110914
(S) Toluene-d8	119			80.0-120		05/14/2018 01:53	WG1110914
(S) Dibromofluoromethane	77.0			74.0-131		05/14/2018 01:53	WG1110914
(S) 4-Bromofluorobenzene	99.7			64.0-132		05/14/2018 01:53	WG1110914

- 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	87.3		1	05/16/2018 11:50	WG111636

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		0.0157	0.0286	1	05/14/2018 02:12	WG110914
Acrylonitrile	U		0.00218	0.0143	1	05/14/2018 02:12	WG110914
Benzene	U		0.000458	0.00115	1	05/14/2018 02:12	WG110914
Bromobenzene	U		0.00120	0.0143	1	05/14/2018 02:12	WG110914
Bromodichloromethane	U		0.000902	0.00286	1	05/14/2018 02:12	WG110914
Bromochloromethane	U		0.00129	0.00573	1	05/14/2018 02:12	WG110914
Bromoform	U	JO	0.00685	0.0286	1	05/14/2018 02:12	WG110914
Bromomethane	U		0.00424	0.0143	1	05/14/2018 02:12	WG110914
n-Butylbenzene	U		0.00440	0.0143	1	05/14/2018 02:12	WG110914
sec-Butylbenzene	U		0.00290	0.0143	1	05/14/2018 02:12	WG110914
tert-Butylbenzene	U		0.00177	0.00573	1	05/14/2018 02:12	WG110914
Carbon disulfide	U		0.00465	0.0143	1	05/14/2018 02:12	WG110914
Carbon tetrachloride	U		0.00124	0.00573	1	05/14/2018 02:12	WG110914
Chlorobenzene	U		0.000656	0.00286	1	05/14/2018 02:12	WG110914
Chlorodibromomethane	U		0.000515	0.00286	1	05/14/2018 02:12	WG110914
Chloroethane	U		0.00124	0.00573	1	05/14/2018 02:12	WG110914
Chloroform	U		0.000475	0.00286	1	05/14/2018 02:12	WG110914
Chloromethane	U	JO	0.00159	0.0143	1	05/14/2018 02:12	WG110914
2-Chlorotoluene	U		0.00105	0.00286	1	05/14/2018 02:12	WG110914
4-Chlorotoluene	U		0.00129	0.00573	1	05/14/2018 02:12	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	05/14/2018 02:12	WG110914
1,2-Dibromoethane	U		0.000601	0.00286	1	05/14/2018 02:12	WG110914
Dibromomethane	U		0.00115	0.00573	1	05/14/2018 02:12	WG110914
1,2-Dichlorobenzene	U		0.00166	0.00573	1	05/14/2018 02:12	WG110914
1,3-Dichlorobenzene	U		0.00195	0.00573	1	05/14/2018 02:12	WG110914
1,4-Dichlorobenzene	U		0.00226	0.00573	1	05/14/2018 02:12	WG110914
Dichlorodifluoromethane	U	J3	0.000937	0.00286	1	05/14/2018 02:12	WG110914
1,1-Dichloroethane	U		0.000658	0.00286	1	05/14/2018 02:12	WG110914
1,2-Dichloroethane	U		0.000544	0.00286	1	05/14/2018 02:12	WG110914
1,1-Dichloroethene	U		0.000573	0.00286	1	05/14/2018 02:12	WG110914
cis-1,2-Dichloroethene	0.00111	J	0.000790	0.00286	1	05/14/2018 02:12	WG110914
trans-1,2-Dichloroethene	U		0.00164	0.00573	1	05/14/2018 02:12	WG110914
1,2-Dichloropropane	U		0.00145	0.00573	1	05/14/2018 02:12	WG110914
1,1-Dichloropropene	U		0.000802	0.00286	1	05/14/2018 02:12	WG110914
1,3-Dichloropropane	U		0.00200	0.00573	1	05/14/2018 02:12	WG110914
cis-1,3-Dichloropropene	U		0.000776	0.00286	1	05/14/2018 02:12	WG110914
trans-1,3-Dichloropropene	U		0.00175	0.00573	1	05/14/2018 02:12	WG110914
trans-1,4-Dichloro-2-butene	U		0.00160	0.00573	1	05/14/2018 02:12	WG110914
2,2-Dichloropropane	U		0.000908	0.00286	1	05/14/2018 02:12	WG110914
Di-isopropyl ether	U		0.000401	0.00115	1	05/14/2018 02:12	WG110914
Ethylbenzene	U		0.000607	0.00286	1	05/14/2018 02:12	WG110914
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	05/14/2018 02:12	WG110914
2-Hexanone	U		0.0115	0.0286	1	05/14/2018 02:12	WG110914
n-Hexane	0.00229	J J4	0.00121	0.00573	1	05/14/2018 02:12	WG110914
Iodomethane	U		0.00693	0.0143	1	05/14/2018 02:12	WG110914
Isopropylbenzene	U		0.000988	0.00286	1	05/14/2018 02:12	WG110914
p-Isopropyltoluene	U		0.00267	0.00573	1	05/14/2018 02:12	WG110914
2-Butanone (MEK)	U		0.0143	0.0286	1	05/14/2018 02:12	WG110914
Methylene Chloride	U		0.00760	0.0286	1	05/14/2018 02:12	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0286	1	05/14/2018 02:12	WG110914

- 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	<u>JO J4</u>	0.000338	0.00115	1	05/14/2018 02:12	WG1110914
Naphthalene	U		0.00357	0.0143	1	05/14/2018 02:12	WG1110914
n-Propylbenzene	U	<u>J4</u>	0.00135	0.00573	1	05/14/2018 02:12	WG1110914
Styrene	U		0.00313	0.0143	1	05/14/2018 02:12	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000573	0.00286	1	05/14/2018 02:12	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000447	0.00286	1	05/14/2018 02:12	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000773	0.00286	1	05/14/2018 02:12	WG1110914
Tetrachloroethene	0.00372		0.000802	0.00286	1	05/14/2018 02:12	WG1110914
Toluene	0.00446	<u>J</u>	0.00143	0.00573	1	05/14/2018 02:12	WG1110914
1,2,3-Trichlorobenzene	U		0.000716	0.00286	1	05/14/2018 02:12	WG1110914
1,2,4-Trichlorobenzene	U		0.00552	0.0143	1	05/14/2018 02:12	WG1110914
1,1,1-Trichloroethane	U		0.000315	0.00286	1	05/14/2018 02:12	WG1110914
1,1,2-Trichloroethane	U		0.00101	0.00286	1	05/14/2018 02:12	WG1110914
Trichloroethene	0.000650	<u>J</u>	0.000458	0.00115	1	05/14/2018 02:12	WG1110914
Trichlorofluoromethane	U		0.000573	0.00286	1	05/14/2018 02:12	WG1110914
1,2,3-Trichloropropane	U		0.00584	0.0143	1	05/14/2018 02:12	WG1110914
1,2,4-Trimethylbenzene	U		0.00133	0.00573	1	05/14/2018 02:12	WG1110914
1,2,3-Trimethylbenzene	U		0.00132	0.00573	1	05/14/2018 02:12	WG1110914
1,3,5-Trimethylbenzene	U		0.00124	0.00573	1	05/14/2018 02:12	WG1110914
Vinyl acetate	U		0.00403	0.0143	1	05/14/2018 02:12	WG1110914
Vinyl chloride	U		0.000782	0.00286	1	05/14/2018 02:12	WG1110914
Xylenes, Total	U		0.00547	0.00744	1	05/14/2018 02:12	WG1110914
(S) Toluene-d8	119			80.0-120		05/14/2018 02:12	WG1110914
(S) Dibromofluoromethane	76.5			74.0-131		05/14/2018 02:12	WG1110914
(S) 4-Bromofluorobenzene	96.7			64.0-132		05/14/2018 02:12	WG1110914

- 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	88.1		1	05/16/2018 11:50	WG111636

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		0.0155	0.0284	1	05/14/2018 02:31	WG110914
Acrylonitrile	U		0.00216	0.0142	1	05/14/2018 02:31	WG110914
Benzene	U		0.000454	0.00113	1	05/14/2018 02:31	WG110914
Bromobenzene	U		0.00119	0.0142	1	05/14/2018 02:31	WG110914
Bromodichloromethane	U		0.000894	0.00284	1	05/14/2018 02:31	WG110914
Bromochloromethane	U		0.00128	0.00567	1	05/14/2018 02:31	WG110914
Bromoform	U	JO	0.00679	0.0284	1	05/14/2018 02:31	WG110914
Bromomethane	U		0.00420	0.0142	1	05/14/2018 02:31	WG110914
n-Butylbenzene	U		0.00436	0.0142	1	05/14/2018 02:31	WG110914
sec-Butylbenzene	U		0.00287	0.0142	1	05/14/2018 02:31	WG110914
tert-Butylbenzene	U		0.00176	0.00567	1	05/14/2018 02:31	WG110914
Carbon disulfide	U		0.00461	0.0142	1	05/14/2018 02:31	WG110914
Carbon tetrachloride	U		0.00123	0.00567	1	05/14/2018 02:31	WG110914
Chlorobenzene	U		0.000650	0.00284	1	05/14/2018 02:31	WG110914
Chlorodibromomethane	U		0.000511	0.00284	1	05/14/2018 02:31	WG110914
Chloroethane	U		0.00123	0.00567	1	05/14/2018 02:31	WG110914
Chloroform	U		0.000471	0.00284	1	05/14/2018 02:31	WG110914
Chloromethane	U	JO	0.00158	0.0142	1	05/14/2018 02:31	WG110914
2-Chlorotoluene	U		0.00104	0.00284	1	05/14/2018 02:31	WG110914
4-Chlorotoluene	U		0.00128	0.00567	1	05/14/2018 02:31	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00579	0.0284	1	05/14/2018 02:31	WG110914
1,2-Dibromoethane	U		0.000596	0.00284	1	05/14/2018 02:31	WG110914
Dibromomethane	U		0.00113	0.00567	1	05/14/2018 02:31	WG110914
1,2-Dichlorobenzene	U		0.00165	0.00567	1	05/14/2018 02:31	WG110914
1,3-Dichlorobenzene	U		0.00193	0.00567	1	05/14/2018 02:31	WG110914
1,4-Dichlorobenzene	U		0.00224	0.00567	1	05/14/2018 02:31	WG110914
Dichlorodifluoromethane	U	J3	0.000928	0.00284	1	05/14/2018 02:31	WG110914
1,1-Dichloroethane	U		0.000653	0.00284	1	05/14/2018 02:31	WG110914
1,2-Dichloroethane	U		0.000539	0.00284	1	05/14/2018 02:31	WG110914
1,1-Dichloroethene	U		0.000567	0.00284	1	05/14/2018 02:31	WG110914
cis-1,2-Dichloroethene	0.00153	J	0.000783	0.00284	1	05/14/2018 02:31	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00567	1	05/14/2018 02:31	WG110914
1,2-Dichloropropane	U		0.00144	0.00567	1	05/14/2018 02:31	WG110914
1,1-Dichloropropene	U		0.000794	0.00284	1	05/14/2018 02:31	WG110914
1,3-Dichloropropane	U		0.00199	0.00567	1	05/14/2018 02:31	WG110914
cis-1,3-Dichloropropene	U		0.000769	0.00284	1	05/14/2018 02:31	WG110914
trans-1,3-Dichloropropene	U		0.00174	0.00567	1	05/14/2018 02:31	WG110914
trans-1,4-Dichloro-2-butene	U		0.00159	0.00567	1	05/14/2018 02:31	WG110914
2,2-Dichloropropane	U		0.000900	0.00284	1	05/14/2018 02:31	WG110914
Di-isopropyl ether	U		0.000397	0.00113	1	05/14/2018 02:31	WG110914
Ethylbenzene	U		0.000601	0.00284	1	05/14/2018 02:31	WG110914
Hexachloro-1,3-butadiene	U		0.0144	0.0284	1	05/14/2018 02:31	WG110914
2-Hexanone	U		0.0113	0.0284	1	05/14/2018 02:31	WG110914
n-Hexane	0.00222	J J4	0.00120	0.00567	1	05/14/2018 02:31	WG110914
Iodomethane	U		0.00687	0.0142	1	05/14/2018 02:31	WG110914
Isopropylbenzene	U		0.000979	0.00284	1	05/14/2018 02:31	WG110914
p-Isopropyltoluene	U		0.00264	0.00567	1	05/14/2018 02:31	WG110914
2-Butanone (MEK)	U		0.0142	0.0284	1	05/14/2018 02:31	WG110914
Methylene Chloride	U		0.00754	0.0284	1	05/14/2018 02:31	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0284	1	05/14/2018 02:31	WG110914

- 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	0.000377	J JO J4	0.000335	0.00113	1	05/14/2018 02:31	WG1110914
Naphthalene	U		0.00354	0.0142	1	05/14/2018 02:31	WG1110914
n-Propylbenzene	U	J4	0.00134	0.00567	1	05/14/2018 02:31	WG1110914
Styrene	U		0.00310	0.0142	1	05/14/2018 02:31	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000567	0.00284	1	05/14/2018 02:31	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000443	0.00284	1	05/14/2018 02:31	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000766	0.00284	1	05/14/2018 02:31	WG1110914
Tetrachloroethene	0.00493		0.000794	0.00284	1	05/14/2018 02:31	WG1110914
Toluene	0.00208	J	0.00142	0.00567	1	05/14/2018 02:31	WG1110914
1,2,3-Trichlorobenzene	U		0.000709	0.00284	1	05/14/2018 02:31	WG1110914
1,2,4-Trichlorobenzene	U		0.00547	0.0142	1	05/14/2018 02:31	WG1110914
1,1,1-Trichloroethane	U		0.000312	0.00284	1	05/14/2018 02:31	WG1110914
1,1,2-Trichloroethane	U		0.00100	0.00284	1	05/14/2018 02:31	WG1110914
Trichloroethene	0.000723	J	0.000454	0.00113	1	05/14/2018 02:31	WG1110914
Trichlorofluoromethane	U		0.000567	0.00284	1	05/14/2018 02:31	WG1110914
1,2,3-Trichloropropane	U		0.00579	0.0142	1	05/14/2018 02:31	WG1110914
1,2,4-Trimethylbenzene	U		0.00132	0.00567	1	05/14/2018 02:31	WG1110914
1,2,3-Trimethylbenzene	U		0.00131	0.00567	1	05/14/2018 02:31	WG1110914
1,3,5-Trimethylbenzene	U		0.00123	0.00567	1	05/14/2018 02:31	WG1110914
Vinyl acetate	U		0.00399	0.0142	1	05/14/2018 02:31	WG1110914
Vinyl chloride	U		0.000775	0.00284	1	05/14/2018 02:31	WG1110914
Xylenes, Total	U		0.00542	0.00738	1	05/14/2018 02:31	WG1110914
(S) Toluene-d8	119			80.0-120		05/14/2018 02:31	WG1110914
(S) Dibromofluoromethane	82.4			74.0-131		05/14/2018 02:31	WG1110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/14/2018 02:31	WG1110914

- 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	80.8		1	05/16/2018 10:57	WG111637

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		0.0169	0.0309	1	05/14/2018 02:51	WG110914
Acrylonitrile	U		0.00235	0.0155	1	05/14/2018 02:51	WG110914
Benzene	U		0.000495	0.00124	1	05/14/2018 02:51	WG110914
Bromobenzene	U		0.00130	0.0155	1	05/14/2018 02:51	WG110914
Bromodichloromethane	U		0.000975	0.00309	1	05/14/2018 02:51	WG110914
Bromochloromethane	U		0.00140	0.00618	1	05/14/2018 02:51	WG110914
Bromoform	U	JO	0.00740	0.0309	1	05/14/2018 02:51	WG110914
Bromomethane	U		0.00458	0.0155	1	05/14/2018 02:51	WG110914
n-Butylbenzene	U		0.00475	0.0155	1	05/14/2018 02:51	WG110914
sec-Butylbenzene	U		0.00313	0.0155	1	05/14/2018 02:51	WG110914
tert-Butylbenzene	U		0.00192	0.00618	1	05/14/2018 02:51	WG110914
Carbon disulfide	U		0.00502	0.0155	1	05/14/2018 02:51	WG110914
Carbon tetrachloride	U		0.00134	0.00618	1	05/14/2018 02:51	WG110914
Chlorobenzene	U		0.000709	0.00309	1	05/14/2018 02:51	WG110914
Chlorodibromomethane	U		0.000557	0.00309	1	05/14/2018 02:51	WG110914
Chloroethane	U		0.00134	0.00618	1	05/14/2018 02:51	WG110914
Chloroform	U		0.000513	0.00309	1	05/14/2018 02:51	WG110914
Chloromethane	U	JO	0.00172	0.0155	1	05/14/2018 02:51	WG110914
2-Chlorotoluene	U		0.00114	0.00309	1	05/14/2018 02:51	WG110914
4-Chlorotoluene	U		0.00140	0.00618	1	05/14/2018 02:51	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00631	0.0309	1	05/14/2018 02:51	WG110914
1,2-Dibromoethane	U		0.000649	0.00309	1	05/14/2018 02:51	WG110914
Dibromomethane	U		0.00124	0.00618	1	05/14/2018 02:51	WG110914
1,2-Dichlorobenzene	U		0.00179	0.00618	1	05/14/2018 02:51	WG110914
1,3-Dichlorobenzene	U		0.00210	0.00618	1	05/14/2018 02:51	WG110914
1,4-Dichlorobenzene	U		0.00244	0.00618	1	05/14/2018 02:51	WG110914
Dichlorodifluoromethane	U	J3	0.00101	0.00309	1	05/14/2018 02:51	WG110914
1,1-Dichloroethane	U		0.000711	0.00309	1	05/14/2018 02:51	WG110914
1,2-Dichloroethane	U		0.000588	0.00309	1	05/14/2018 02:51	WG110914
1,1-Dichloroethene	U		0.000618	0.00309	1	05/14/2018 02:51	WG110914
cis-1,2-Dichloroethene	0.0338		0.000854	0.00309	1	05/14/2018 02:51	WG110914
trans-1,2-Dichloroethene	U		0.00177	0.00618	1	05/14/2018 02:51	WG110914
1,2-Dichloropropane	U		0.00157	0.00618	1	05/14/2018 02:51	WG110914
1,1-Dichloropropene	U		0.000866	0.00309	1	05/14/2018 02:51	WG110914
1,3-Dichloropropane	U		0.00216	0.00618	1	05/14/2018 02:51	WG110914
cis-1,3-Dichloropropene	U		0.000839	0.00309	1	05/14/2018 02:51	WG110914
trans-1,3-Dichloropropene	U		0.00189	0.00618	1	05/14/2018 02:51	WG110914
trans-1,4-Dichloro-2-butene	U		0.00173	0.00618	1	05/14/2018 02:51	WG110914
2,2-Dichloropropane	U		0.000981	0.00309	1	05/14/2018 02:51	WG110914
Di-isopropyl ether	U		0.000433	0.00124	1	05/14/2018 02:51	WG110914
Ethylbenzene	U		0.000656	0.00309	1	05/14/2018 02:51	WG110914
Hexachloro-1,3-butadiene	U		0.0157	0.0309	1	05/14/2018 02:51	WG110914
2-Hexanone	U		0.0124	0.0309	1	05/14/2018 02:51	WG110914
n-Hexane	0.00253	J J4	0.00131	0.00618	1	05/14/2018 02:51	WG110914
Iodomethane	U		0.00748	0.0155	1	05/14/2018 02:51	WG110914
Isopropylbenzene	U		0.00107	0.00309	1	05/14/2018 02:51	WG110914
p-Isopropyltoluene	U		0.00288	0.00618	1	05/14/2018 02:51	WG110914
2-Butanone (MEK)	U		0.0155	0.0309	1	05/14/2018 02:51	WG110914
Methylene Chloride	U		0.00821	0.0309	1	05/14/2018 02:51	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0124	0.0309	1	05/14/2018 02:51	WG110914

- 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	<u>JO J4</u>	0.000365	0.00124	1	05/14/2018 02:51	WG1110914
Naphthalene	U		0.00386	0.0155	1	05/14/2018 02:51	WG1110914
n-Propylbenzene	U	<u>J4</u>	0.00146	0.00618	1	05/14/2018 02:51	WG1110914
Styrene	U		0.00338	0.0155	1	05/14/2018 02:51	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000618	0.00309	1	05/14/2018 02:51	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000482	0.00309	1	05/14/2018 02:51	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000835	0.00309	1	05/14/2018 02:51	WG1110914
Tetrachloroethene	0.00178	<u>J</u>	0.000866	0.00309	1	05/14/2018 02:51	WG1110914
Toluene	0.00178	<u>J</u>	0.00155	0.00618	1	05/14/2018 02:51	WG1110914
1,2,3-Trichlorobenzene	U		0.000773	0.00309	1	05/14/2018 02:51	WG1110914
1,2,4-Trichlorobenzene	U		0.00596	0.0155	1	05/14/2018 02:51	WG1110914
1,1,1-Trichloroethane	U		0.000340	0.00309	1	05/14/2018 02:51	WG1110914
1,1,2-Trichloroethane	U		0.00109	0.00309	1	05/14/2018 02:51	WG1110914
Trichloroethene	U		0.000495	0.00124	1	05/14/2018 02:51	WG1110914
Trichlorofluoromethane	U		0.000618	0.00309	1	05/14/2018 02:51	WG1110914
1,2,3-Trichloropropane	U		0.00631	0.0155	1	05/14/2018 02:51	WG1110914
1,2,4-Trimethylbenzene	U		0.00143	0.00618	1	05/14/2018 02:51	WG1110914
1,2,3-Trimethylbenzene	U		0.00142	0.00618	1	05/14/2018 02:51	WG1110914
1,3,5-Trimethylbenzene	U		0.00134	0.00618	1	05/14/2018 02:51	WG1110914
Vinyl acetate	U		0.00435	0.0155	1	05/14/2018 02:51	WG1110914
Vinyl chloride	0.0154		0.000845	0.00309	1	05/14/2018 02:51	WG1110914
Xylenes, Total	U		0.00591	0.00804	1	05/14/2018 02:51	WG1110914
(S) Toluene-d8	120			80.0-120		05/14/2018 02:51	WG1110914
(S) Dibromofluoromethane	76.6			74.0-131		05/14/2018 02:51	WG1110914
(S) 4-Bromofluorobenzene	98.0			64.0-132		05/14/2018 02:51	WG1110914

- 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	90.0		1	05/16/2018 10:57	WG111637

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	0.0166	J	0.0152	0.0278	1	05/14/2018 03:10	WG110914
Acrylonitrile	U		0.00211	0.0139	1	05/14/2018 03:10	WG110914
Benzene	U		0.000445	0.00111	1	05/14/2018 03:10	WG110914
Bromobenzene	U		0.00117	0.0139	1	05/14/2018 03:10	WG110914
Bromodichloromethane	U		0.000876	0.00278	1	05/14/2018 03:10	WG110914
Bromochloromethane	U		0.00126	0.00556	1	05/14/2018 03:10	WG110914
Bromoform	U	JO	0.00665	0.0278	1	05/14/2018 03:10	WG110914
Bromomethane	U		0.00411	0.0139	1	05/14/2018 03:10	WG110914
n-Butylbenzene	U		0.00427	0.0139	1	05/14/2018 03:10	WG110914
sec-Butylbenzene	U		0.00281	0.0139	1	05/14/2018 03:10	WG110914
tert-Butylbenzene	U		0.00172	0.00556	1	05/14/2018 03:10	WG110914
Carbon disulfide	U		0.00451	0.0139	1	05/14/2018 03:10	WG110914
Carbon tetrachloride	U		0.00120	0.00556	1	05/14/2018 03:10	WG110914
Chlorobenzene	U		0.000637	0.00278	1	05/14/2018 03:10	WG110914
Chlorodibromomethane	U		0.000500	0.00278	1	05/14/2018 03:10	WG110914
Chloroethane	U		0.00120	0.00556	1	05/14/2018 03:10	WG110914
Chloroform	U		0.000461	0.00278	1	05/14/2018 03:10	WG110914
Chloromethane	U	JO	0.00154	0.0139	1	05/14/2018 03:10	WG110914
2-Chlorotoluene	U		0.00102	0.00278	1	05/14/2018 03:10	WG110914
4-Chlorotoluene	U		0.00126	0.00556	1	05/14/2018 03:10	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00567	0.0278	1	05/14/2018 03:10	WG110914
1,2-Dibromoethane	U		0.000584	0.00278	1	05/14/2018 03:10	WG110914
Dibromomethane	U		0.00111	0.00556	1	05/14/2018 03:10	WG110914
1,2-Dichlorobenzene	U		0.00161	0.00556	1	05/14/2018 03:10	WG110914
1,3-Dichlorobenzene	U		0.00189	0.00556	1	05/14/2018 03:10	WG110914
1,4-Dichlorobenzene	U		0.00219	0.00556	1	05/14/2018 03:10	WG110914
Dichlorodifluoromethane	U	J3	0.000909	0.00278	1	05/14/2018 03:10	WG110914
1,1-Dichloroethane	U		0.000639	0.00278	1	05/14/2018 03:10	WG110914
1,2-Dichloroethane	U		0.000528	0.00278	1	05/14/2018 03:10	WG110914
1,1-Dichloroethene	0.00147	J	0.000556	0.00278	1	05/14/2018 03:10	WG110914
cis-1,2-Dichloroethene	0.232		0.000767	0.00278	1	05/14/2018 03:10	WG110914
trans-1,2-Dichloroethene	U		0.00159	0.00556	1	05/14/2018 03:10	WG110914
1,2-Dichloropropane	U		0.00141	0.00556	1	05/14/2018 03:10	WG110914
1,1-Dichloropropene	U		0.000778	0.00278	1	05/14/2018 03:10	WG110914
1,3-Dichloropropane	U		0.00195	0.00556	1	05/14/2018 03:10	WG110914
cis-1,3-Dichloropropene	U		0.000754	0.00278	1	05/14/2018 03:10	WG110914
trans-1,3-Dichloropropene	U		0.00170	0.00556	1	05/14/2018 03:10	WG110914
trans-1,4-Dichloro-2-butene	U		0.00156	0.00556	1	05/14/2018 03:10	WG110914
2,2-Dichloropropane	U		0.000881	0.00278	1	05/14/2018 03:10	WG110914
Di-isopropyl ether	U		0.000389	0.00111	1	05/14/2018 03:10	WG110914
Ethylbenzene	U		0.000589	0.00278	1	05/14/2018 03:10	WG110914
Hexachloro-1,3-butadiene	U		0.0141	0.0278	1	05/14/2018 03:10	WG110914
2-Hexanone	U		0.0111	0.0278	1	05/14/2018 03:10	WG110914
n-Hexane	0.00291	J J4	0.00118	0.00556	1	05/14/2018 03:10	WG110914
Iodomethane	U		0.00672	0.0139	1	05/14/2018 03:10	WG110914
Isopropylbenzene	U		0.000959	0.00278	1	05/14/2018 03:10	WG110914
p-Isopropyltoluene	U		0.00259	0.00556	1	05/14/2018 03:10	WG110914
2-Butanone (MEK)	U		0.0139	0.0278	1	05/14/2018 03:10	WG110914
Methylene Chloride	U		0.00738	0.0278	1	05/14/2018 03:10	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	05/14/2018 03:10	WG110914

- 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	0.000596	<u>J</u> <u>JO</u> <u>J4</u>	0.000328	0.00111	1	05/14/2018 03:10	WG1110914
Naphthalene	U		0.00347	0.0139	1	05/14/2018 03:10	WG1110914
n-Propylbenzene	U	<u>J4</u>	0.00131	0.00556	1	05/14/2018 03:10	WG1110914
Styrene	U		0.00303	0.0139	1	05/14/2018 03:10	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000556	0.00278	1	05/14/2018 03:10	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000433	0.00278	1	05/14/2018 03:10	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000750	0.00278	1	05/14/2018 03:10	WG1110914
Tetrachloroethene	0.223		0.000778	0.00278	1	05/14/2018 03:10	WG1110914
Toluene	0.00520	<u>J</u>	0.00139	0.00556	1	05/14/2018 03:10	WG1110914
1,2,3-Trichlorobenzene	U		0.000695	0.00278	1	05/14/2018 03:10	WG1110914
1,2,4-Trichlorobenzene	U		0.00536	0.0139	1	05/14/2018 03:10	WG1110914
1,1,1-Trichloroethane	U		0.000306	0.00278	1	05/14/2018 03:10	WG1110914
1,1,2-Trichloroethane	U		0.000981	0.00278	1	05/14/2018 03:10	WG1110914
Trichloroethene	0.239		0.000445	0.00111	1	05/14/2018 03:10	WG1110914
Trichlorofluoromethane	U		0.000556	0.00278	1	05/14/2018 03:10	WG1110914
1,2,3-Trichloropropane	U		0.00567	0.0139	1	05/14/2018 03:10	WG1110914
1,2,4-Trimethylbenzene	U		0.00129	0.00556	1	05/14/2018 03:10	WG1110914
1,2,3-Trimethylbenzene	U		0.00128	0.00556	1	05/14/2018 03:10	WG1110914
1,3,5-Trimethylbenzene	U		0.00120	0.00556	1	05/14/2018 03:10	WG1110914
Vinyl acetate	U		0.00391	0.0139	1	05/14/2018 03:10	WG1110914
Vinyl chloride	0.00822		0.000759	0.00278	1	05/14/2018 03:10	WG1110914
Xylenes, Total	U		0.00531	0.00722	1	05/14/2018 03:10	WG1110914
(S) Toluene-d8	121	<u>J1</u>		80.0-120		05/14/2018 03:10	WG1110914
(S) Dibromofluoromethane	73.7	<u>J2</u>		74.0-131		05/14/2018 03:10	WG1110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/14/2018 03:10	WG1110914

- 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	86.3		1	05/16/2018 10:57	WG111637

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	0.0178	<u>J</u>	0.0159	0.0290	1	05/14/2018 03:30	WG110914
Acrylonitrile	U		0.00220	0.0145	1	05/14/2018 03:30	WG110914
Benzene	U		0.000463	0.00116	1	05/14/2018 03:30	WG110914
Bromobenzene	U		0.00122	0.0145	1	05/14/2018 03:30	WG110914
Bromodichloromethane	U		0.000913	0.00290	1	05/14/2018 03:30	WG110914
Bromochloromethane	U		0.00131	0.00579	1	05/14/2018 03:30	WG110914
Bromoform	U	<u>JO</u>	0.00693	0.0290	1	05/14/2018 03:30	WG110914
Bromomethane	U		0.00429	0.0145	1	05/14/2018 03:30	WG110914
n-Butylbenzene	U		0.00445	0.0145	1	05/14/2018 03:30	WG110914
sec-Butylbenzene	U		0.00293	0.0145	1	05/14/2018 03:30	WG110914
tert-Butylbenzene	U		0.00180	0.00579	1	05/14/2018 03:30	WG110914
Carbon disulfide	U		0.00470	0.0145	1	05/14/2018 03:30	WG110914
Carbon tetrachloride	U		0.00125	0.00579	1	05/14/2018 03:30	WG110914
Chlorobenzene	U		0.000664	0.00290	1	05/14/2018 03:30	WG110914
Chlorodibromomethane	U		0.000521	0.00290	1	05/14/2018 03:30	WG110914
Chloroethane	U		0.00125	0.00579	1	05/14/2018 03:30	WG110914
Chloroform	U		0.000481	0.00290	1	05/14/2018 03:30	WG110914
Chloromethane	U	<u>JO</u>	0.00161	0.0145	1	05/14/2018 03:30	WG110914
2-Chlorotoluene	U		0.00107	0.00290	1	05/14/2018 03:30	WG110914
4-Chlorotoluene	U		0.00131	0.00579	1	05/14/2018 03:30	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	05/14/2018 03:30	WG110914
1,2-Dibromoethane	U		0.000608	0.00290	1	05/14/2018 03:30	WG110914
Dibromomethane	U		0.00116	0.00579	1	05/14/2018 03:30	WG110914
1,2-Dichlorobenzene	U		0.00168	0.00579	1	05/14/2018 03:30	WG110914
1,3-Dichlorobenzene	U		0.00197	0.00579	1	05/14/2018 03:30	WG110914
1,4-Dichlorobenzene	U		0.00228	0.00579	1	05/14/2018 03:30	WG110914
Dichlorodifluoromethane	U	<u>J3</u>	0.000948	0.00290	1	05/14/2018 03:30	WG110914
1,1-Dichloroethane	U		0.000666	0.00290	1	05/14/2018 03:30	WG110914
1,2-Dichloroethane	U		0.000550	0.00290	1	05/14/2018 03:30	WG110914
1,1-Dichloroethene	U		0.000579	0.00290	1	05/14/2018 03:30	WG110914
cis-1,2-Dichloroethene	U		0.000799	0.00290	1	05/14/2018 03:30	WG110914
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	05/14/2018 03:30	WG110914
1,2-Dichloropropane	U		0.00147	0.00579	1	05/14/2018 03:30	WG110914
1,1-Dichloropropene	U		0.000811	0.00290	1	05/14/2018 03:30	WG110914
1,3-Dichloropropane	U		0.00203	0.00579	1	05/14/2018 03:30	WG110914
cis-1,3-Dichloropropene	U		0.000786	0.00290	1	05/14/2018 03:30	WG110914
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	05/14/2018 03:30	WG110914
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	05/14/2018 03:30	WG110914
2,2-Dichloropropane	U		0.000919	0.00290	1	05/14/2018 03:30	WG110914
Di-isopropyl ether	U		0.000406	0.00116	1	05/14/2018 03:30	WG110914
Ethylbenzene	U		0.000614	0.00290	1	05/14/2018 03:30	WG110914
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	05/14/2018 03:30	WG110914
2-Hexanone	U		0.0116	0.0290	1	05/14/2018 03:30	WG110914
n-Hexane	0.00301	<u>J J4</u>	0.00123	0.00579	1	05/14/2018 03:30	WG110914
Iodomethane	U		0.00701	0.0145	1	05/14/2018 03:30	WG110914
Isopropylbenzene	U		0.00100	0.00290	1	05/14/2018 03:30	WG110914
p-Isopropyltoluene	U		0.00270	0.00579	1	05/14/2018 03:30	WG110914
2-Butanone (MEK)	U		0.0145	0.0290	1	05/14/2018 03:30	WG110914
Methylene Chloride	U		0.00769	0.0290	1	05/14/2018 03:30	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	05/14/2018 03:30	WG110914

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



Collected date/time: 05/11/18 12:15

L993557

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	0.000689	J JO J4	0.000342	0.00116	1	05/14/2018 03:30	WG1110914
Naphthalene	U		0.00361	0.0145	1	05/14/2018 03:30	WG1110914
n-Propylbenzene	U	J4	0.00137	0.00579	1	05/14/2018 03:30	WG1110914
Styrene	U		0.00316	0.0145	1	05/14/2018 03:30	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	05/14/2018 03:30	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	05/14/2018 03:30	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	05/14/2018 03:30	WG1110914
Tetrachloroethene	0.00130	J	0.000811	0.00290	1	05/14/2018 03:30	WG1110914
Toluene	0.00494	J	0.00145	0.00579	1	05/14/2018 03:30	WG1110914
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	05/14/2018 03:30	WG1110914
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	05/14/2018 03:30	WG1110914
1,1,1-Trichloroethane	U		0.000319	0.00290	1	05/14/2018 03:30	WG1110914
1,1,2-Trichloroethane	U		0.00102	0.00290	1	05/14/2018 03:30	WG1110914
Trichloroethene	U		0.000463	0.00116	1	05/14/2018 03:30	WG1110914
Trichlorofluoromethane	U		0.000579	0.00290	1	05/14/2018 03:30	WG1110914
1,2,3-Trichloropropane	U		0.00591	0.0145	1	05/14/2018 03:30	WG1110914
1,2,4-Trimethylbenzene	U		0.00134	0.00579	1	05/14/2018 03:30	WG1110914
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	05/14/2018 03:30	WG1110914
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	05/14/2018 03:30	WG1110914
Vinyl acetate	U		0.00408	0.0145	1	05/14/2018 03:30	WG1110914
Vinyl chloride	U		0.000791	0.00290	1	05/14/2018 03:30	WG1110914
Xylenes, Total	U		0.00554	0.00753	1	05/14/2018 03:30	WG1110914
(S) Toluene-d8	120			80.0-120		05/14/2018 03:30	WG1110914
(S) Dibromofluoromethane	81.1			74.0-131		05/14/2018 03:30	WG1110914
(S) 4-Bromofluorobenzene	100			64.0-132		05/14/2018 03:30	WG1110914

- 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	88.5		1	05/16/2018 10:57	WG111637

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		0.0155	0.0282	1	05/14/2018 03:49	WG110914
Acrylonitrile	U		0.00215	0.0141	1	05/14/2018 03:49	WG110914
Benzene	U		0.000452	0.00113	1	05/14/2018 03:49	WG110914
Bromobenzene	U		0.00119	0.0141	1	05/14/2018 03:49	WG110914
Bromodichloromethane	U		0.000890	0.00282	1	05/14/2018 03:49	WG110914
Bromochloromethane	U		0.00128	0.00565	1	05/14/2018 03:49	WG110914
Bromoform	U	J0	0.00675	0.0282	1	05/14/2018 03:49	WG110914
Bromomethane	U		0.00418	0.0141	1	05/14/2018 03:49	WG110914
n-Butylbenzene	U		0.00434	0.0141	1	05/14/2018 03:49	WG110914
sec-Butylbenzene	U		0.00286	0.0141	1	05/14/2018 03:49	WG110914
tert-Butylbenzene	U		0.00175	0.00565	1	05/14/2018 03:49	WG110914
Carbon disulfide	U		0.00459	0.0141	1	05/14/2018 03:49	WG110914
Carbon tetrachloride	U		0.00122	0.00565	1	05/14/2018 03:49	WG110914
Chlorobenzene	U		0.000647	0.00282	1	05/14/2018 03:49	WG110914
Chlorodibromomethane	U		0.000508	0.00282	1	05/14/2018 03:49	WG110914
Chloroethane	U		0.00122	0.00565	1	05/14/2018 03:49	WG110914
Chloroform	U		0.000469	0.00282	1	05/14/2018 03:49	WG110914
Chloromethane	U	J0	0.00157	0.0141	1	05/14/2018 03:49	WG110914
2-Chlorotoluene	U		0.00104	0.00282	1	05/14/2018 03:49	WG110914
4-Chlorotoluene	U		0.00128	0.00565	1	05/14/2018 03:49	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0282	1	05/14/2018 03:49	WG110914
1,2-Dibromoethane	U		0.000593	0.00282	1	05/14/2018 03:49	WG110914
Dibromomethane	U		0.00113	0.00565	1	05/14/2018 03:49	WG110914
1,2-Dichlorobenzene	U		0.00164	0.00565	1	05/14/2018 03:49	WG110914
1,3-Dichlorobenzene	U		0.00192	0.00565	1	05/14/2018 03:49	WG110914
1,4-Dichlorobenzene	U		0.00223	0.00565	1	05/14/2018 03:49	WG110914
Dichlorodifluoromethane	U	J3	0.000924	0.00282	1	05/14/2018 03:49	WG110914
1,1-Dichloroethane	U		0.000649	0.00282	1	05/14/2018 03:49	WG110914
1,2-Dichloroethane	U		0.000536	0.00282	1	05/14/2018 03:49	WG110914
1,1-Dichloroethene	U		0.000565	0.00282	1	05/14/2018 03:49	WG110914
cis-1,2-Dichloroethene	U		0.000779	0.00282	1	05/14/2018 03:49	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00565	1	05/14/2018 03:49	WG110914
1,2-Dichloropropane	U		0.00143	0.00565	1	05/14/2018 03:49	WG110914
1,1-Dichloropropene	U		0.000791	0.00282	1	05/14/2018 03:49	WG110914
1,3-Dichloropropane	U		0.00198	0.00565	1	05/14/2018 03:49	WG110914
cis-1,3-Dichloropropene	U		0.000766	0.00282	1	05/14/2018 03:49	WG110914
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	05/14/2018 03:49	WG110914
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	05/14/2018 03:49	WG110914
2,2-Dichloropropane	U		0.000896	0.00282	1	05/14/2018 03:49	WG110914
Di-isopropyl ether	U		0.000395	0.00113	1	05/14/2018 03:49	WG110914
Ethylbenzene	U		0.000599	0.00282	1	05/14/2018 03:49	WG110914
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	05/14/2018 03:49	WG110914
2-Hexanone	U		0.0113	0.0282	1	05/14/2018 03:49	WG110914
n-Hexane	U	J4	0.00120	0.00565	1	05/14/2018 03:49	WG110914
Iodomethane	U		0.00683	0.0141	1	05/14/2018 03:49	WG110914
Isopropylbenzene	U		0.000975	0.00282	1	05/14/2018 03:49	WG110914
p-Isopropyltoluene	U		0.00263	0.00565	1	05/14/2018 03:49	WG110914
2-Butanone (MEK)	U		0.0141	0.0282	1	05/14/2018 03:49	WG110914
Methylene Chloride	U		0.00750	0.0282	1	05/14/2018 03:49	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	05/14/2018 03:49	WG110914

- 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	0.000343	J JO J4	0.000333	0.00113	1	05/14/2018 03:49	WG1110914
Naphthalene	U		0.00352	0.0141	1	05/14/2018 03:49	WG1110914
n-Propylbenzene	U	J4	0.00133	0.00565	1	05/14/2018 03:49	WG1110914
Styrene	U		0.00308	0.0141	1	05/14/2018 03:49	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000565	0.00282	1	05/14/2018 03:49	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000440	0.00282	1	05/14/2018 03:49	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000762	0.00282	1	05/14/2018 03:49	WG1110914
Tetrachloroethene	U		0.000791	0.00282	1	05/14/2018 03:49	WG1110914
Toluene	U		0.00141	0.00565	1	05/14/2018 03:49	WG1110914
1,2,3-Trichlorobenzene	U		0.000706	0.00282	1	05/14/2018 03:49	WG1110914
1,2,4-Trichlorobenzene	U		0.00544	0.0141	1	05/14/2018 03:49	WG1110914
1,1,1-Trichloroethane	U		0.000311	0.00282	1	05/14/2018 03:49	WG1110914
1,1,2-Trichloroethane	U		0.000997	0.00282	1	05/14/2018 03:49	WG1110914
Trichloroethene	U		0.000452	0.00113	1	05/14/2018 03:49	WG1110914
Trichlorofluoromethane	U		0.000565	0.00282	1	05/14/2018 03:49	WG1110914
1,2,3-Trichloropropane	U		0.00576	0.0141	1	05/14/2018 03:49	WG1110914
1,2,4-Trimethylbenzene	U		0.00131	0.00565	1	05/14/2018 03:49	WG1110914
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	05/14/2018 03:49	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	05/14/2018 03:49	WG1110914
Vinyl acetate	U		0.00398	0.0141	1	05/14/2018 03:49	WG1110914
Vinyl chloride	U		0.000771	0.00282	1	05/14/2018 03:49	WG1110914
Xylenes, Total	U		0.00540	0.00734	1	05/14/2018 03:49	WG1110914
(S) Toluene-d8	120			80.0-120		05/14/2018 03:49	WG1110914
(S) Dibromofluoromethane	85.5			74.0-131		05/14/2018 03:49	WG1110914
(S) 4-Bromofluorobenzene	98.6			64.0-132		05/14/2018 03:49	WG1110914

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



Collected date/time: 05/11/18 08:00

L993557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	05/16/2018 10:57	WG111637

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		0.0205	0.0374	1.37	05/14/2018 04:08	WG110914
Acrylonitrile	U	J3 J6	0.00284	0.0187	1.37	05/14/2018 04:08	WG110914
Benzene	0.000776	J	0.000599	0.00150	1.37	05/14/2018 04:08	WG110914
Bromobenzene	U	J5	0.00157	0.0187	1.37	05/14/2018 04:08	WG110914
Bromodichloromethane	U		0.00118	0.00374	1.37	05/14/2018 04:08	WG110914
Bromochloromethane	U	J3	0.00169	0.00749	1.37	05/14/2018 04:08	WG110914
Bromoform	U	J0	0.00895	0.0374	1.37	05/14/2018 04:08	WG110914
Bromomethane	U		0.00554	0.0187	1.37	05/14/2018 04:08	WG110914
n-Butylbenzene	U		0.00575	0.0187	1.37	05/14/2018 04:08	WG110914
sec-Butylbenzene	U		0.00379	0.0187	1.37	05/14/2018 04:08	WG110914
tert-Butylbenzene	U		0.00232	0.00749	1.37	05/14/2018 04:08	WG110914
Carbon disulfide	U		0.00608	0.0187	1.37	05/14/2018 04:08	WG110914
Carbon tetrachloride	U		0.00162	0.00749	1.37	05/14/2018 04:08	WG110914
Chlorobenzene	U	J5	0.000858	0.00374	1.37	05/14/2018 04:08	WG110914
Chlorodibromomethane	U		0.000673	0.00374	1.37	05/14/2018 04:08	WG110914
Chloroethane	U		0.00162	0.00749	1.37	05/14/2018 04:08	WG110914
Chloroform	U		0.000621	0.00374	1.37	05/14/2018 04:08	WG110914
Chloromethane	U	J0	0.00208	0.0187	1.37	05/14/2018 04:08	WG110914
2-Chlorotoluene	U		0.00138	0.00374	1.37	05/14/2018 04:08	WG110914
4-Chlorotoluene	U		0.00169	0.00749	1.37	05/14/2018 04:08	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00764	0.0374	1.37	05/14/2018 04:08	WG110914
1,2-Dibromoethane	U		0.000786	0.00374	1.37	05/14/2018 04:08	WG110914
Dibromomethane	U		0.00150	0.00749	1.37	05/14/2018 04:08	WG110914
1,2-Dichlorobenzene	U		0.00218	0.00749	1.37	05/14/2018 04:08	WG110914
1,3-Dichlorobenzene	U		0.00255	0.00749	1.37	05/14/2018 04:08	WG110914
1,4-Dichlorobenzene	U		0.00295	0.00749	1.37	05/14/2018 04:08	WG110914
Dichlorodifluoromethane	U	J5	0.00122	0.00374	1.37	05/14/2018 04:08	WG110914
1,1-Dichloroethane	U		0.000861	0.00374	1.37	05/14/2018 04:08	WG110914
1,2-Dichloroethane	U		0.000712	0.00374	1.37	05/14/2018 04:08	WG110914
1,1-Dichloroethene	U		0.000749	0.00374	1.37	05/14/2018 04:08	WG110914
cis-1,2-Dichloroethene	0.0150		0.00103	0.00374	1.37	05/14/2018 04:08	WG110914
trans-1,2-Dichloroethene	U		0.00214	0.00749	1.37	05/14/2018 04:08	WG110914
1,2-Dichloropropane	U		0.00190	0.00749	1.37	05/14/2018 04:08	WG110914
1,1-Dichloropropene	U		0.00105	0.00374	1.37	05/14/2018 04:08	WG110914
1,3-Dichloropropane	U	J5	0.00262	0.00749	1.37	05/14/2018 04:08	WG110914
cis-1,3-Dichloropropene	U		0.00102	0.00374	1.37	05/14/2018 04:08	WG110914
trans-1,3-Dichloropropene	U		0.00230	0.00749	1.37	05/14/2018 04:08	WG110914
trans-1,4-Dichloro-2-butene	U		0.00210	0.00749	1.37	05/14/2018 04:08	WG110914
2,2-Dichloropropane	U		0.00119	0.00374	1.37	05/14/2018 04:08	WG110914
Di-isopropyl ether	U		0.000525	0.00150	1.37	05/14/2018 04:08	WG110914
Ethylbenzene	U	J5	0.000793	0.00374	1.37	05/14/2018 04:08	WG110914
Hexachloro-1,3-butadiene	U		0.0190	0.0374	1.37	05/14/2018 04:08	WG110914
2-Hexanone	U		0.0150	0.0374	1.37	05/14/2018 04:08	WG110914
n-Hexane	0.00536	J J4 J5	0.00158	0.00749	1.37	05/14/2018 04:08	WG110914
Iodomethane	U		0.00906	0.0187	1.37	05/14/2018 04:08	WG110914
Isopropylbenzene	U		0.00129	0.00374	1.37	05/14/2018 04:08	WG110914
p-Isopropyltoluene	U		0.00349	0.00749	1.37	05/14/2018 04:08	WG110914
2-Butanone (MEK)	U		0.0187	0.0374	1.37	05/14/2018 04:08	WG110914
Methylene Chloride	U		0.00995	0.0374	1.37	05/14/2018 04:08	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0150	0.0374	1.37	05/14/2018 04:08	WG110914

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



Collected date/time: 05/11/18 08:00

L993557

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	0.000771	<u>J J0 J4</u>	0.000442	0.00150	1.37	05/14/2018 04:08	WG1110914
Naphthalene	U		0.00467	0.0187	1.37	05/14/2018 04:08	WG1110914
n-Propylbenzene	U	<u>J4</u>	0.00177	0.00749	1.37	05/14/2018 04:08	WG1110914
Styrene	U	<u>J5</u>	0.00409	0.0187	1.37	05/14/2018 04:08	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000749	0.00374	1.37	05/14/2018 04:08	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000584	0.00374	1.37	05/14/2018 04:08	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.00101	0.00374	1.37	05/14/2018 04:08	WG1110914
Tetrachloroethene	0.0144	<u>J5</u>	0.00105	0.00374	1.37	05/14/2018 04:08	WG1110914
Toluene	0.00231	<u>J J5</u>	0.00187	0.00749	1.37	05/14/2018 04:08	WG1110914
1,2,3-Trichlorobenzene	U		0.000936	0.00374	1.37	05/14/2018 04:08	WG1110914
1,2,4-Trichlorobenzene	U		0.00721	0.0187	1.37	05/14/2018 04:08	WG1110914
1,1,1-Trichloroethane	U		0.000412	0.00374	1.37	05/14/2018 04:08	WG1110914
1,1,2-Trichloroethane	U	<u>J5</u>	0.00132	0.00374	1.37	05/14/2018 04:08	WG1110914
Trichloroethene	0.00359		0.000599	0.00150	1.37	05/14/2018 04:08	WG1110914
Trichlorofluoromethane	U		0.000749	0.00374	1.37	05/14/2018 04:08	WG1110914
1,2,3-Trichloropropane	U		0.00764	0.0187	1.37	05/14/2018 04:08	WG1110914
1,2,4-Trimethylbenzene	U		0.00174	0.00749	1.37	05/14/2018 04:08	WG1110914
1,2,3-Trimethylbenzene	U	<u>J5</u>	0.00173	0.00749	1.37	05/14/2018 04:08	WG1110914
1,3,5-Trimethylbenzene	U		0.00162	0.00749	1.37	05/14/2018 04:08	WG1110914
Vinyl acetate	U		0.00527	0.0187	1.37	05/14/2018 04:08	WG1110914
Vinyl chloride	U	<u>J6</u>	0.00102	0.00374	1.37	05/14/2018 04:08	WG1110914
Xylenes, Total	U		0.00716	0.00973	1.37	05/14/2018 04:08	WG1110914
(S) Toluene-d8	120			80.0-120		05/14/2018 04:08	WG1110914
(S) Dibromofluoromethane	85.8			74.0-131		05/14/2018 04:08	WG1110914
(S) 4-Bromofluorobenzene	99.2			64.0-132		05/14/2018 04:08	WG1110914

- 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	05/16/2018 12:31	WG1111989
Acrylonitrile	U		0.873	5.00	1	05/16/2018 12:31	WG1111989
Benzene	U		0.0896	0.500	1	05/16/2018 12:31	WG1111989
Bromobenzene	U		0.133	0.500	1	05/16/2018 12:31	WG1111989
Bromodichloromethane	U		0.0800	0.500	1	05/16/2018 12:31	WG1111989
Bromochloromethane	U		0.145	0.500	1	05/16/2018 12:31	WG1111989
Bromoform	U		0.186	0.500	1	05/16/2018 12:31	WG1111989
Bromomethane	U		0.157	2.50	1	05/16/2018 12:31	WG1111989
n-Butylbenzene	U		0.143	0.500	1	05/16/2018 12:31	WG1111989
sec-Butylbenzene	U		0.134	0.500	1	05/16/2018 12:31	WG1111989
tert-Butylbenzene	U		0.183	0.500	1	05/16/2018 12:31	WG1111989
Carbon disulfide	U		0.101	0.500	1	05/16/2018 12:31	WG1111989
Carbon tetrachloride	U		0.159	0.500	1	05/16/2018 12:31	WG1111989
Chlorobenzene	U		0.140	0.500	1	05/16/2018 12:31	WG1111989
Chlorodibromomethane	U		0.128	0.500	1	05/16/2018 12:31	WG1111989
Chloroethane	U	<u>JO</u>	0.141	2.50	1	05/16/2018 12:31	WG1111989
Chloroform	U		0.0860	0.500	1	05/16/2018 12:31	WG1111989
Chloromethane	U		0.153	1.25	1	05/16/2018 12:31	WG1111989
2-Chlorotoluene	U		0.111	0.500	1	05/16/2018 12:31	WG1111989
4-Chlorotoluene	U		0.0972	0.500	1	05/16/2018 12:31	WG1111989
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/16/2018 12:31	WG1111989
1,2-Dibromoethane	U		0.193	0.500	1	05/16/2018 12:31	WG1111989
Dibromomethane	U		0.117	0.500	1	05/16/2018 12:31	WG1111989
1,2-Dichlorobenzene	U		0.101	0.500	1	05/16/2018 12:31	WG1111989
1,3-Dichlorobenzene	U		0.130	0.500	1	05/16/2018 12:31	WG1111989
1,4-Dichlorobenzene	U		0.121	0.500	1	05/16/2018 12:31	WG1111989
Dichlorodifluoromethane	U		0.127	2.50	1	05/16/2018 12:31	WG1111989
1,1-Dichloroethane	U		0.114	0.500	1	05/16/2018 12:31	WG1111989
1,2-Dichloroethane	U		0.108	0.500	1	05/16/2018 12:31	WG1111989
1,1-Dichloroethene	U		0.188	0.500	1	05/16/2018 12:31	WG1111989
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/16/2018 12:31	WG1111989
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/16/2018 12:31	WG1111989
1,2-Dichloropropane	U		0.190	0.500	1	05/16/2018 12:31	WG1111989
1,1-Dichloropropene	U		0.128	0.500	1	05/16/2018 12:31	WG1111989
1,3-Dichloropropane	U		0.147	1.00	1	05/16/2018 12:31	WG1111989
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/16/2018 12:31	WG1111989
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/16/2018 12:31	WG1111989
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/16/2018 12:31	WG1111989
2,2-Dichloropropane	U		0.0929	0.500	1	05/16/2018 12:31	WG1111989
Di-isopropyl ether	U		0.0924	0.500	1	05/16/2018 12:31	WG1111989
Ethylbenzene	U		0.158	0.500	1	05/16/2018 12:31	WG1111989
Hexachloro-1,3-butadiene	U	<u>JO</u>	0.157	1.00	1	05/16/2018 12:31	WG1111989
2-Hexanone	U		0.757	5.00	1	05/16/2018 12:31	WG1111989
n-Hexane	U		0.305	5.00	1	05/16/2018 12:31	WG1111989
Iodomethane	U		0.377	10.0	1	05/16/2018 12:31	WG1111989
Isopropylbenzene	U		0.126	0.500	1	05/16/2018 12:31	WG1111989
p-Isopropyltoluene	U		0.138	0.500	1	05/16/2018 12:31	WG1111989
2-Butanone (MEK)	U		1.28	5.00	1	05/16/2018 12:31	WG1111989
Methylene Chloride	U		1.07	2.50	1	05/16/2018 12:31	WG1111989
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/16/2018 12:31	WG1111989
Methyl tert-butyl ether	U		0.102	0.500	1	05/16/2018 12:31	WG1111989
Naphthalene	U		0.174	2.50	1	05/16/2018 12:31	WG1111989
n-Propylbenzene	U		0.162	0.500	1	05/16/2018 12:31	WG1111989
Styrene	U		0.117	0.500	1	05/16/2018 12:31	WG1111989
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/16/2018 12:31	WG1111989
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/16/2018 12:31	WG1111989

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/11/18 00:00

L993557

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	05/16/2018 12:31	WG1111989
Tetrachloroethene	U		0.199	0.500	1	05/16/2018 12:31	WG1111989
Toluene	U		0.412	0.500	1	05/16/2018 12:31	WG1111989
1,2,3-Trichlorobenzene	U	<u>JO</u>	0.164	0.500	1	05/16/2018 12:31	WG1111989
1,2,4-Trichlorobenzene	U	<u>JO</u>	0.355	0.500	1	05/16/2018 12:31	WG1111989
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/16/2018 12:31	WG1111989
1,1,2-Trichloroethane	U		0.186	0.500	1	05/16/2018 12:31	WG1111989
Trichloroethene	U		0.153	0.500	1	05/16/2018 12:31	WG1111989
Trichlorofluoromethane	U		0.130	2.50	1	05/16/2018 12:31	WG1111989
1,2,3-Trichloropropane	U		0.247	2.50	1	05/16/2018 12:31	WG1111989
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/16/2018 12:31	WG1111989
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/16/2018 12:31	WG1111989
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/16/2018 12:31	WG1111989
Vinyl acetate	U	<u>J3</u>	0.645	5.00	1	05/16/2018 12:31	WG1111989
Vinyl chloride	U		0.118	0.500	1	05/16/2018 12:31	WG1111989
Xylenes, Total	U		0.316	1.50	1	05/16/2018 12:31	WG1111989
(S) Toluene-d8	94.3			80.0-120		05/16/2018 12:31	WG1111989
(S) Dibromofluoromethane	113			76.0-123		05/16/2018 12:31	WG1111989
(S) 4-Bromofluorobenzene	113			80.0-120		05/16/2018 12:31	WG1111989

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



Method Blank (MB)

(MB) R3310651-1 05/16/18 13:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L993515-03 Original Sample (OS) • Duplicate (DUP)

(OS) L993515-03 05/16/18 13:55 • (DUP) R3310651-3 05/16/18 13:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	96.1	96.2	1	0.110		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3310651-2 05/16/18 13:55

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) R3310621-1 05/16/18 11:50

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L993557-10 Original Sample (OS) • Duplicate (DUP)

(OS) L993557-10 05/16/18 11:50 • (DUP) R3310621-3 05/16/18 11:50

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	91.4	91.0	1	0.488		5

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3310621-2 05/16/18 11:50

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) R3310599-1 05/16/18 10:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L993623-01 Original Sample (OS) • Duplicate (DUP)

(OS) L993623-01 05/16/18 10:57 • (DUP) R3310599-3 05/16/18 10:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	76.8	75.8	1	1.35		5

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3310599-2 05/16/18 10:57

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) R3309627-3 05/13/18 18:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3309627-3 05/13/18 18:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	116			80.0-120
(S) Dibromofluoromethane	86.0			74.0-131
(S) 4-Bromofluorobenzene	99.9			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) R3309627-1 05/13/18 17:19 • (LCSD) R3309627-2 05/13/18 17:39

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	0.625	0.548	0.585	87.6	93.6	25.3-178			6.58	22.9
Acrylonitrile	0.625	0.578	0.608	92.5	97.3	57.8-143			5.11	20
Benzene	0.125	0.109	0.107	87.4	85.3	72.6-120			2.46	20
Bromobenzene	0.125	0.119	0.119	95.3	95.2	80.3-115			0.0470	20
Bromodichloromethane	0.125	0.114	0.115	91.1	91.9	75.3-119			0.777	20
Bromochloromethane	0.125	0.116	0.118	92.7	94.5	79.7-123			1.93	20
Bromoform	0.125	0.101	0.104	80.7	83.6	69.1-135			3.48	20
Bromomethane	0.125	0.140	0.136	112	109	23.0-191			2.64	20
n-Butylbenzene	0.125	0.116	0.113	93.0	90.1	74.2-134			3.15	20
sec-Butylbenzene	0.125	0.108	0.103	86.1	82.4	77.8-129			4.44	20
tert-Butylbenzene	0.125	0.104	0.0999	83.0	79.9	77.2-129			3.76	20
Carbon disulfide	0.125	0.110	0.100	88.4	80.3	49.9-136			9.56	20
Carbon tetrachloride	0.125	0.111	0.0998	89.2	79.8	69.4-129			11.1	20
Chlorobenzene	0.125	0.119	0.118	95.5	94.2	78.9-122			1.37	20
Chlorodibromomethane	0.125	0.115	0.117	91.7	93.9	76.4-126			2.36	20
Chloroethane	0.125	0.119	0.111	94.8	88.7	47.2-147			6.66	20
Chloroform	0.125	0.114	0.113	91.5	90.4	73.3-122			1.17	20
Chloromethane	0.125	0.0962	0.0893	76.9	71.4	53.1-135			7.39	20
2-Chlorotoluene	0.125	0.109	0.107	87.2	85.8	74.6-127			1.62	20
4-Chlorotoluene	0.125	0.115	0.114	92.1	91.3	79.5-123			0.891	20
1,2-Dibromo-3-Chloropropane	0.125	0.103	0.107	82.2	85.6	64.9-131			3.95	20
1,2-Dibromoethane	0.125	0.121	0.124	97.2	99.0	78.7-123			1.81	20
Dibromomethane	0.125	0.118	0.121	94.6	97.1	78.5-117			2.62	20
1,2-Dichlorobenzene	0.125	0.122	0.123	97.4	98.3	83.6-119			0.898	20
1,3-Dichlorobenzene	0.125	0.122	0.121	97.3	96.8	75.9-129			0.510	20
1,4-Dichlorobenzene	0.125	0.119	0.119	95.2	95.2	81.0-115			0.0319	20
trans-1,4-Dichloro-2-butene	0.125	0.102	0.103	81.6	82.7	58.4-125			1.41	20
Dichlorodifluoromethane	0.125	0.129	0.103	104	82.7	50.9-139		<u>J3</u>	22.4	20
1,1-Dichloroethane	0.125	0.119	0.116	95.1	93.1	71.7-125			2.21	20
1,2-Dichloroethane	0.125	0.119	0.120	94.8	96.3	67.2-121			1.51	20
1,1-Dichloroethene	0.125	0.111	0.0989	88.7	79.1	60.6-133			11.5	20
cis-1,2-Dichloroethene	0.125	0.108	0.108	86.8	86.0	76.1-121			0.825	20
trans-1,2-Dichloroethene	0.125	0.114	0.109	91.6	87.1	70.7-124			4.98	20
1,2-Dichloropropane	0.125	0.116	0.116	93.1	92.4	76.9-123			0.743	20
1,1-Dichloropropene	0.125	0.111	0.100	88.6	80.3	71.2-126			9.91	20
1,3-Dichloropropane	0.125	0.139	0.141	111	112	80.3-114			1.38	20
cis-1,3-Dichloropropene	0.125	0.111	0.112	89.0	89.9	77.3-123			0.974	20
trans-1,3-Dichloropropene	0.125	0.106	0.108	85.0	86.1	73.0-127			1.21	20
2,2-Dichloropropane	0.125	0.0972	0.0891	77.7	71.3	61.9-132			8.64	20
Di-isopropyl ether	0.125	0.106	0.107	84.8	85.4	67.2-131			0.700	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) R3309627-1 05/13/18 17:19 • (LCSD) R3309627-2 05/13/18 17:39

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	0.125	0.109	0.105	87.2	83.9	78.6-124			3.86	20
Hexachloro-1,3-butadiene	0.125	0.118	0.117	94.6	93.3	69.2-136			1.35	20
2-Hexanone	0.625	0.621	0.644	99.3	103	62.7-150			3.65	20
n-Hexane	0.125	0.169	0.152	135	122	59.9-125	J4		10.5	20
Iodomethane	0.625	0.548	0.538	87.6	86.0	63.3-136			1.82	20
Isopropylbenzene	0.125	0.105	0.0993	84.3	79.4	79.4-126			5.89	20
p-Isopropyltoluene	0.125	0.113	0.109	90.2	87.4	75.4-132			3.08	20
2-Butanone (MEK)	0.625	0.630	0.638	101	102	44.5-154			1.16	21.3
Methylene Chloride	0.125	0.105	0.105	84.0	83.9	68.2-119			0.200	20
4-Methyl-2-pentanone (MIBK)	0.625	0.586	0.609	93.8	97.4	61.1-138			3.71	20
Methyl tert-butyl ether	0.125	0.0868	0.0894	69.4	71.5	70.2-122	J4		2.96	20
Naphthalene	0.125	0.114	0.116	90.8	93.2	69.9-132			2.56	20
n-Propylbenzene	0.125	0.0949	0.0939	75.9	75.1	80.2-124	J4	J4	1.07	20
Styrene	0.125	0.105	0.105	83.6	83.8	79.4-124			0.231	20
1,1,1,2-Tetrachloroethane	0.125	0.114	0.115	91.4	91.9	76.7-127			0.526	20
1,1,2,2-Tetrachloroethane	0.125	0.120	0.125	95.6	99.7	78.8-124			4.19	20
Tetrachloroethene	0.125	0.124	0.114	99.0	91.1	71.1-133			8.28	20
Toluene	0.125	0.119	0.115	94.8	91.8	76.7-116			3.18	20
1,1,2-Trichlorotrifluoroethane	0.125	0.137	0.116	110	92.6	62.6-138			17.2	20
1,2,3-Trichlorobenzene	0.125	0.114	0.116	91.2	92.9	72.5-137			1.79	20
1,2,4-Trichlorobenzene	0.125	0.120	0.120	96.0	96.2	74.0-137			0.237	20
1,1,1-Trichloroethane	0.125	0.111	0.101	88.4	81.2	69.9-127			8.55	20
1,1,2-Trichloroethane	0.125	0.125	0.128	100	102	81.9-119			2.23	20
Trichloroethene	0.125	0.102	0.0966	81.6	77.2	77.2-122			5.47	20
Trichlorofluoromethane	0.125	0.143	0.121	114	97.2	51.5-151			16.1	20
1,2,3-Trichloropropane	0.125	0.117	0.121	93.7	96.7	74.0-124			3.26	20
1,2,3-Trimethylbenzene	0.125	0.117	0.117	93.3	93.2	79.4-118			0.102	20
1,2,4-Trimethylbenzene	0.125	0.101	0.0990	80.6	79.2	77.1-124			1.66	20
1,3,5-Trimethylbenzene	0.125	0.110	0.108	87.6	86.1	79.0-125			1.71	20
Vinyl acetate	0.625	0.509	0.517	81.4	82.7	39.8-156			1.55	20
Vinyl chloride	0.125	0.0979	0.0884	78.4	70.7	58.4-134			10.2	20
Xylenes, Total	0.375	0.332	0.321	88.5	85.6	78.1-123			3.37	20
(S) Toluene-d8				107	106	80.0-120				
(S) Dibromofluoromethane				102	103	74.0-131				
(S) 4-Bromofluorobenzene				97.1	96.7	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993557-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993557-19 05/14/18 04:08 • (MS) R3309627-4 05/14/18 04:28 • (MSD) R3309627-5 05/14/18 05:12

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	3.42	U	1.21	1.06	35.3	31.2	1	10.0-130			12.5	31.5
Acrylonitrile	3.42	U	1.64	1.22	48.0	35.9	1	39.3-152		J3 J6	29.1	27.2
Benzene	0.683	0.000776	0.746	0.721	109	105	1	47.8-131			3.31	22.8
Bromobenzene	0.683	U	0.934	0.902	137	132	1	40.0-130	J5	J5	3.46	27.4
Bromodichloromethane	0.683	U	0.823	0.806	120	118	1	50.6-128			2.03	22.8
Bromochloromethane	0.683	U	0.722	0.538	106	78.8	1	62.9-126		J3	29.2	20
Bromoform	0.683	U	0.739	0.744	108	109	1	43.3-139			0.771	25.9
Bromomethane	0.683	U	0.238	0.272	34.9	39.7	1	5.00-189			13.0	26.7
n-Butylbenzene	0.683	U	0.956	0.991	140	145	1	23.6-146			3.51	39.2
sec-Butylbenzene	0.683	U	0.931	0.903	136	132	1	31.0-142			3.06	34.7
tert-Butylbenzene	0.683	U	0.922	0.893	135	131	1	36.9-142			3.12	31.7
Carbon disulfide	0.683	U	0.653	0.626	95.6	91.6	1	21.2-135			4.23	23.8
Carbon tetrachloride	0.683	U	0.781	0.766	114	112	1	46.0-140			1.97	27.2
Chlorobenzene	0.683	U	0.933	0.897	137	131	1	44.1-134	J5		3.95	25.7
Chlorodibromomethane	0.683	U	0.848	0.836	124	122	1	49.7-134			1.45	24
Chloroethane	0.683	U	0.151	0.152	22.1	22.3	1	5.00-164			0.980	28.4
Chloroform	0.683	U	0.753	0.661	110	96.7	1	51.2-133			13.0	22.8
Chloromethane	0.683	U	0.917	0.921	134	135	1	31.4-141			0.474	24.6
2-Chlorotoluene	0.683	U	0.893	0.794	131	116	1	36.1-137			11.7	28.9
4-Chlorotoluene	0.683	U	0.857	0.822	125	120	1	35.4-137			4.11	29.8
1,2-Dibromo-3-Chloropropane	0.683	U	0.652	0.699	95.4	102	1	40.4-138			6.92	30.8
1,2-Dibromoethane	0.683	U	0.898	0.886	132	130	1	50.2-133			1.41	23.6
Dibromomethane	0.683	U	0.769	0.763	113	112	1	52.4-128			0.806	23
1,2-Dichlorobenzene	0.683	U	0.886	0.867	130	127	1	34.6-139			2.14	29.9
1,3-Dichlorobenzene	0.683	U	0.911	0.875	133	128	1	28.4-142			3.97	31.2
1,4-Dichlorobenzene	0.683	U	0.886	0.865	130	127	1	35.0-133			2.43	31.1
trans-1,4-Dichloro-2-butene	0.683	U	0.869	0.895	127	131	1	30.0-147			2.90	29
Dichlorodifluoromethane	0.683	U	1.34	1.35	196	197	1	31.2-144	J5	J5	0.584	30.2
1,1-Dichloroethane	0.683	U	0.790	0.719	116	105	1	49.1-136			9.41	22.9
1,2-Dichloroethane	0.683	U	0.677	0.605	99.1	88.6	1	47.1-129			11.2	22.7
1,1-Dichloroethene	0.683	U	0.682	0.670	99.9	98.1	1	36.1-142			1.81	25.6
cis-1,2-Dichloroethene	0.683	0.0150	0.755	0.677	108	97.0	1	50.6-133			10.8	23
trans-1,2-Dichloroethene	0.683	U	0.802	0.753	117	110	1	43.8-135			6.37	24.8
1,2-Dichloropropane	0.683	U	0.848	0.814	124	119	1	50.3-134			4.11	22.7
1,1-Dichloropropene	0.683	U	0.844	0.812	124	119	1	43.0-137			3.88	26.4
1,3-Dichloropropane	0.683	U	1.03	1.01	150	147	1	51.4-127	J5	J5	2.13	23.1
cis-1,3-Dichloropropene	0.683	U	0.847	0.829	124	121	1	48.4-134			2.24	23.6
trans-1,3-Dichloropropene	0.683	U	0.838	0.829	123	121	1	46.6-135			1.08	25.3
2,2-Dichloropropane	0.683	U	0.547	0.537	80.1	78.6	1	45.2-141			1.88	26.6

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993557-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993557-19 05/14/18 04:08 • (MS) R3309627-4 05/14/18 04:28 • (MSD) R3309627-5 05/14/18 05:12

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	0.683	U	0.668	0.574	97.7	84.1	1	46.7-140			15.0	23.5
Ethylbenzene	0.683	U	0.961	0.915	141	134	1	44.8-135	J5		4.89	26.9
Hexachloro-1,3-butadiene	0.683	U	0.926	0.938	136	137	1	10.0-149			1.27	40
2-Hexanone	3.42	U	3.69	3.74	108	110	1	44.3-157			1.33	23.7
n-Hexane	0.683	0.00536	1.20	1.15	176	168	1	26.0-123	J5	J5	4.32	40
Iodomethane	3.42	U	2.84	2.76	83.2	80.8	1	31.5-147			2.86	23.4
Isopropylbenzene	0.683	U	0.917	0.879	134	129	1	41.9-139			4.18	29.3
p-Isopropyltoluene	0.683	U	0.996	0.964	146	141	1	27.3-146			3.29	35.1
2-Butanone (MEK)	3.42	U	2.70	2.30	79.1	67.2	1	23.9-170			16.2	28.3
Methylene Chloride	0.683	U	0.642	0.606	93.9	88.8	1	46.7-125			5.64	22.2
4-Methyl-2-pentanone (MIBK)	3.42	U	3.61	3.65	106	107	1	42.4-146			1.03	26.7
Methyl tert-butyl ether	0.683	0.000771	0.422	0.361	61.7	52.7	1	50.4-131			15.8	24.8
Naphthalene	0.683	U	0.880	0.907	129	133	1	18.4-145			2.96	34
n-Propylbenzene	0.683	U	0.948	0.900	139	132	1	35.2-139			5.16	31.9
Styrene	0.683	U	1.08	1.03	159	151	1	39.7-137	J5	J5	5.00	28.2
1,1,1,2-Tetrachloroethane	0.683	U	0.828	0.808	121	118	1	48.8-136			2.50	25.5
1,1,2,2-Tetrachloroethane	0.683	U	0.796	0.805	117	118	1	45.7-140			1.11	26.4
Tetrachloroethene	0.683	0.0144	1.02	0.966	147	139	1	37.7-140	J5		5.60	29.2
Toluene	0.683	0.00231	0.930	0.887	136	130	1	47.8-127	J5	J5	4.71	24.3
1,1,2-Trichlorotrifluoroethane	0.683	U	0.876	0.865	128	127	1	35.7-146			1.24	28.8
1,2,3-Trichlorobenzene	0.683	U	0.843	0.854	123	125	1	10.0-150			1.20	38.5
1,2,4-Trichlorobenzene	0.683	U	0.887	0.889	130	130	1	10.0-153			0.159	39.3
1,1,1-Trichloroethane	0.683	U	0.760	0.740	111	108	1	49.0-138			2.59	25.3
1,1,2-Trichloroethane	0.683	U	0.930	0.906	136	133	1	52.3-132	J5	J5	2.61	23.4
Trichloroethene	0.683	0.00359	0.764	0.733	111	107	1	48.0-132			4.16	24.8
Trichlorofluoromethane	0.683	U	1.12	1.09	164	160	1	12.8-169			2.09	29.7
1,2,3-Trichloropropane	0.683	U	0.815	0.822	119	120	1	44.4-138			0.856	26.3
1,2,3-Trimethylbenzene	0.683	U	0.913	0.894	134	131	1	41.0-133	J5		2.18	27.6
1,2,4-Trimethylbenzene	0.683	U	0.879	0.819	129	120	1	32.9-139			7.02	30.6
1,3,5-Trimethylbenzene	0.683	U	0.943	0.871	138	128	1	37.1-138			7.91	30.6
Vinyl acetate	3.42	U	1.06	1.17	30.9	34.2	1	5.00-184			10.1	40
Vinyl chloride	0.683	U	0.110	0.0922	16.0	13.5	1	32.0-146	J6	J6	17.2	26.3
Xylenes, Total	2.05	U	2.69	2.58	131	126	1	42.7-135			4.31	26.6
(S) Toluene-d8					113	112		80.0-120				
(S) Dibromofluoromethane					88.0	77.1		74.0-131				
(S) 4-Bromofluorobenzene					101	99.5		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) R3310485-4 05/16/18 10:41

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
Bromochloromethane	U		0.145	0.500
Bromodichloromethane	U		0.0800	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
trans-1,4-Dichloro-2-butene	U		0.257	5.00
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
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) R3310485-4 05/16/18 10:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
2-Hexanone	U		0.757	5.00
Hexachloro-1,3-butadiene	U		0.157	1.00
Iodomethane	U		0.377	10.0
n-Hexane	U		0.305	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
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 acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	95.1			80.0-120
(S) Dibromofluoromethane	110			76.0-123
(S) 4-Bromofluorobenzene	109			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) R3310485-1 05/16/18 09:14 • (LCSD) R3310485-2 05/16/18 09:35

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 %
Bromochloromethane	25.0	26.9	26.9	108	108	76.0-122			0.0291	20
Acetone	125	118	111	94.4	88.4	10.0-160			6.59	23
Acrylonitrile	125	152	147	121	118	60.0-142			2.91	20
Benzene	25.0	27.8	27.7	111	111	69.0-123			0.578	20
Bromobenzene	25.0	29.3	28.8	117	115	79.0-120			1.62	20
Bromodichloromethane	25.0	23.8	23.5	95.3	93.9	76.0-120			1.44	20
Bromoform	25.0	27.1	26.4	108	106	67.0-132			2.55	20
Bromomethane	25.0	19.5	20.3	78.1	81.2	18.0-160			3.80	20
n-Butylbenzene	25.0	23.6	22.8	94.3	91.3	72.0-126			3.19	20
sec-Butylbenzene	25.0	27.9	27.3	112	109	74.0-121			2.34	20
tert-Butylbenzene	25.0	27.3	27.2	109	109	75.0-122			0.218	20
Carbon disulfide	25.0	26.6	26.8	106	107	55.0-127			0.626	20
Carbon tetrachloride	25.0	26.2	25.8	105	103	63.0-122			1.59	20
Chlorobenzene	25.0	22.6	22.7	90.4	90.8	79.0-121			0.364	20
Chlorodibromomethane	25.0	22.4	22.1	89.6	88.6	75.0-125			1.09	20
Chloroethane	25.0	19.8	20.3	79.1	81.1	47.0-152			2.49	20
trans-1,4-Dichloro-2-butene	25.0	31.1	28.6	124	114	55.0-134			8.44	20
Chloroform	25.0	25.2	25.5	101	102	72.0-121			1.28	20
Chloromethane	25.0	32.1	32.2	128	129	48.0-139			0.489	20
2-Chlorotoluene	25.0	30.0	29.3	120	117	74.0-122			2.31	20
4-Chlorotoluene	25.0	28.9	29.1	116	116	79.0-120			0.728	20
1,2-Dibromo-3-Chloropropane	25.0	22.1	21.8	88.4	87.1	64.0-127			1.48	20
1,2-Dibromoethane	25.0	22.9	22.7	91.7	90.9	77.0-123			0.914	20
Dibromomethane	25.0	26.2	26.0	105	104	78.0-120			0.623	20
1,2-Dichlorobenzene	25.0	23.9	24.2	95.5	96.9	80.0-120			1.44	20
1,3-Dichlorobenzene	25.0	25.1	25.4	100	102	72.0-123			1.39	20
1,4-Dichlorobenzene	25.0	24.8	24.8	99.2	99.2	77.0-120			0.0231	20
Dichlorodifluoromethane	25.0	24.6	25.1	98.3	100	49.0-155			1.94	20
1,1-Dichloroethane	25.0	30.3	30.5	121	122	70.0-126			0.895	20
1,2-Dichloroethane	25.0	28.6	28.4	114	114	67.0-126			0.647	20
1,1-Dichloroethene	25.0	24.2	24.9	97.0	99.7	64.0-129			2.76	20
cis-1,2-Dichloroethene	25.0	25.1	25.4	100	102	73.0-120			1.45	20
2-Hexanone	125	119	117	95.4	93.6	58.0-147			1.87	20
trans-1,2-Dichloroethene	25.0	25.8	26.1	103	104	71.0-121			0.989	20
1,2-Dichloropropane	25.0	28.2	27.4	113	110	75.0-125			2.89	20
1,1-Dichloropropene	25.0	29.9	30.3	120	121	71.0-129			1.35	20
Iodomethane	125	126	127	101	102	57.0-140			0.741	20
1,3-Dichloropropane	25.0	25.5	25.3	102	101	80.0-121			0.847	20
cis-1,3-Dichloropropene	25.0	25.0	24.9	100	99.7	79.0-123			0.500	20
trans-1,3-Dichloropropene	25.0	24.6	24.7	98.3	98.6	74.0-127			0.328	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) R3310485-1 05/16/18 09:14 • (LCSD) R3310485-2 05/16/18 09:35

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 %
2,2-Dichloropropane	25.0	24.6	24.2	98.5	97.0	60.0-125			1.54	20
Di-isopropyl ether	25.0	32.2	31.9	129	128	59.0-133			0.945	20
Ethylbenzene	25.0	22.6	22.3	90.5	89.2	77.0-120			1.37	20
Hexachloro-1,3-butadiene	25.0	16.7	17.4	66.9	69.8	64.0-131			4.13	20
n-Hexane	25.0	26.3	24.8	105	99.2	56.0-124			6.04	20
Isopropylbenzene	25.0	29.9	29.2	119	117	75.0-120			2.39	20
p-Isopropyltoluene	25.0	25.0	24.5	100	97.8	74.0-126			2.25	20
2-Butanone (MEK)	125	152	142	121	114	37.0-158			6.47	20
Methylene Chloride	25.0	25.9	25.9	104	103	66.0-121			0.0828	20
4-Methyl-2-pentanone (MIBK)	125	130	127	104	102	59.0-143			2.49	20
Methyl tert-butyl ether	25.0	27.7	26.7	111	107	64.0-123			3.79	20
Naphthalene	25.0	20.5	22.1	81.9	88.5	62.0-128			7.79	20
n-Propylbenzene	25.0	29.8	29.2	119	117	79.0-120			2.00	20
Styrene	25.0	28.6	28.6	115	114	78.0-124			0.0819	20
1,1,1,2-Tetrachloroethane	25.0	22.8	22.0	91.4	88.1	75.0-122			3.62	20
1,1,2,2-Tetrachloroethane	25.0	26.2	25.2	105	101	71.0-122			4.14	20
Tetrachloroethene	25.0	22.2	21.6	89.0	86.5	70.0-127			2.84	20
Vinyl acetate	125	110	79.5	88.0	63.6	46.0-160		J3	32.1	20
Toluene	25.0	23.5	23.2	93.9	93.0	77.0-120			1.00	20
1,1,2-Trichlorotrifluoroethane	25.0	29.9	30.6	120	122	61.0-136			2.14	20
1,2,3-Trichlorobenzene	25.0	18.4	19.4	73.7	77.8	61.0-133			5.42	20
1,2,4-Trichlorobenzene	25.0	19.3	19.4	77.3	77.7	69.0-129			0.483	20
1,1,1-Trichloroethane	25.0	26.1	26.0	104	104	68.0-122			0.242	20
1,1,2-Trichloroethane	25.0	20.9	21.1	83.7	84.3	78.0-120			0.773	20
Trichloroethene	25.0	25.0	25.6	99.8	102	78.0-120			2.36	20
Trichlorofluoromethane	25.0	25.9	26.8	103	107	56.0-137			3.66	20
1,2,3-Trichloropropane	25.0	28.1	27.6	113	111	72.0-124			1.73	20
1,2,3-Trimethylbenzene	25.0	25.7	25.5	103	102	75.0-120			0.741	20
1,2,4-Trimethylbenzene	25.0	28.0	27.4	112	110	75.0-120			2.13	20
1,3,5-Trimethylbenzene	25.0	28.9	27.9	116	112	75.0-120			3.62	20
Vinyl chloride	25.0	22.1	22.8	88.4	91.1	64.0-133			2.95	20
Xylenes, Total	75.0	67.7	67.2	90.3	89.6	77.0-120			0.741	20
(S) Toluene-d8				94.2	93.8	80.0-120				
(S) Dibromofluoromethane				108	107	76.0-123				
(S) 4-Bromofluorobenzene				117	115	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993585-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993585-01 05/16/18 18:17 • (MS) R3310485-5 05/16/18 19:00 • (MSD) R3310485-6 05/16/18 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 %
Bromochloromethane	25.0	U	29.7	30.4	119	122	1	53.0-138			2.36	20
Acetone	125	U	105	106	84.0	85.0	1	10.0-139			1.25	25
Acrylonitrile	125	U	154	159	123	128	1	46.0-159			3.28	23
Benzene	25.0	U	30.8	31.6	123	126	1	34.0-147			2.34	20
Bromobenzene	25.0	U	31.1	32.0	124	128	1	51.0-137			2.99	20
Bromodichloromethane	25.0	U	26.8	28.1	107	112	1	52.0-135			4.55	20
Bromoform	25.0	U	28.1	29.4	113	118	1	50.0-146			4.35	20
Bromomethane	25.0	U	22.4	23.8	89.7	95.1	1	10.0-160			5.75	23
n-Butylbenzene	25.0	U	24.3	25.4	97.2	102	1	50.0-144			4.49	20
sec-Butylbenzene	25.0	U	27.9	28.9	112	116	1	48.0-143			3.44	20
tert-Butylbenzene	25.0	U	28.0	28.9	112	115	1	50.0-142			3.16	20
trans-1,4-Dichloro-2-butene	25.0	U	33.2	35.5	133	142	1	40.0-150			6.62	21
Carbon disulfide	25.0	U	29.6	30.4	118	122	1	10.0-147			2.75	20
Carbon tetrachloride	25.0	U	29.4	29.4	118	117	1	41.0-138			0.0890	20
Chlorobenzene	25.0	U	26.3	26.6	105	106	1	52.0-141			1.05	20
Chlorodibromomethane	25.0	U	25.1	26.0	100	104	1	54.0-142			3.47	20
Chloroethane	25.0	U	22.5	25.7	90.1	103	1	23.0-160			13.1	20
Chloroform	25.0	U	28.9	29.7	116	119	1	50.0-139			2.80	20
Chloromethane	25.0	U	35.3	35.8	141	143	1	14.0-151			1.48	20
2-Chlorotoluene	25.0	U	31.7	32.5	127	130	1	48.0-142			2.40	20
4-Chlorotoluene	25.0	U	31.3	32.4	125	129	1	52.0-139			3.28	20
1,2-Dibromo-3-Chloropropane	25.0	U	22.2	23.6	89.0	94.4	1	49.0-144			5.96	24
1,2-Dibromoethane	25.0	U	25.2	25.9	101	104	1	54.0-140			2.60	20
Dibromomethane	25.0	U	27.7	29.5	111	118	1	53.0-138			6.18	20
1,2-Dichlorobenzene	25.0	U	26.4	27.6	106	111	1	56.0-139			4.56	20
1,3-Dichlorobenzene	25.0	U	28.2	29.4	113	118	1	50.0-141			4.44	20
1,4-Dichlorobenzene	25.0	U	28.0	29.0	112	116	1	53.0-136			3.52	20
Dichlorodifluoromethane	25.0	U	30.5	32.6	122	130	1	20.0-160			6.58	21
2-Hexanone	125	U	125	128	100	103	1	36.0-145			2.72	23
1,1-Dichloroethane	25.0	U	34.5	35.4	138	141	1	47.0-143			2.54	20
1,2-Dichloroethane	25.0	U	30.9	32.5	123	130	1	47.0-141			5.16	20
Iodomethane	125	U	141	147	113	117	1	30.0-151			4.06	20
1,1-Dichloroethene	25.0	U	28.9	29.8	116	119	1	31.0-148			3.12	20
cis-1,2-Dichloroethene	25.0	2.48	30.5	31.6	112	117	1	43.0-142			3.50	20
trans-1,2-Dichloroethene	25.0	U	29.7	30.5	119	122	1	36.0-141			2.54	20
1,2-Dichloropropane	25.0	U	30.8	32.0	123	128	1	51.0-141			3.60	20
1,1-Dichloropropene	25.0	U	35.3	35.5	141	142	1	42.0-146			0.572	20
1,3-Dichloropropane	25.0	U	28.5	29.1	114	116	1	58.0-139			2.20	20
cis-1,3-Dichloropropene	25.0	U	27.5	28.1	110	113	1	53.0-139			2.15	20
trans-1,3-Dichloropropene	25.0	U	27.9	29.1	112	116	1	51.0-143			4.15	20

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



L993585-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993585-01 05/16/18 18:17 • (MS) R3310485-5 05/16/18 19:00 • (MSD) R3310485-6 05/16/18 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 %
2,2-Dichloropropane	25.0	U	31.4	32.9	126	132	1	43.0-139			4.67	20
Di-isopropyl ether	25.0	U	34.3	35.1	137	140	1	44.0-144			2.21	20
Ethylbenzene	25.0	U	25.8	26.0	103	104	1	42.0-147			0.890	20
Hexachloro-1,3-butadiene	25.0	U	14.7	17.8	58.7	71.2	1	44.0-146			19.2	21
n-Hexane	25.0	U	30.2	30.7	121	123	1	13.0-145			1.72	20
Isopropylbenzene	25.0	U	31.3	31.8	125	127	1	48.0-141			1.82	20
p-Isopropyltoluene	25.0	U	25.3	26.3	101	105	1	49.0-146			3.70	20
2-Butanone (MEK)	125	U	145	152	116	122	1	12.0-149			4.86	24
Methylene Chloride	25.0	U	28.0	28.6	112	115	1	42.0-135			2.33	20
4-Methyl-2-pentanone (MIBK)	125	U	139	142	111	113	1	44.0-160			1.86	22
Methyl tert-butyl ether	25.0	U	28.3	29.0	113	116	1	42.0-142			2.46	20
Naphthalene	25.0	U	19.8	23.4	79.1	93.5	1	42.0-146			16.7	24
Vinyl acetate	125	U	191	196	153	157	1	30.0-160			2.63	20
n-Propylbenzene	25.0	U	31.3	31.8	125	127	1	47.0-144			1.59	20
Styrene	25.0	U	32.1	33.0	129	132	1	47.0-147			2.61	20
1,1,1,2-Tetrachloroethane	25.0	U	24.6	25.1	98.5	100	1	52.0-140			1.94	20
1,1,2,2-Tetrachloroethane	25.0	U	29.0	29.8	116	119	1	46.0-149			3.00	20
Tetrachloroethene	25.0	34.2	63.4	63.5	117	117	1	38.0-147			0.0884	20
Toluene	25.0	U	27.0	27.5	108	110	1	42.0-141			1.71	20
1,1,2-Trichlorotrifluoroethane	25.0	U	36.7	37.3	147	149	1	40.0-151			1.56	21
1,2,3-Trichlorobenzene	25.0	U	16.6	19.8	66.2	79.3	1	45.0-145			18.0	22
1,2,4-Trichlorobenzene	25.0	U	17.9	20.5	71.8	82.1	1	49.0-147			13.3	21
1,1,1-Trichloroethane	25.0	U	29.9	30.7	120	123	1	46.0-140			2.68	20
1,1,2-Trichloroethane	25.0	U	24.0	24.0	96.2	96.2	1	54.0-139			0.0319	20
Trichloroethene	25.0	4.97	31.7	32.7	107	111	1	32.0-156			3.20	20
Trichlorofluoromethane	25.0	U	32.7	33.5	131	134	1	32.0-152			2.29	20
1,2,3-Trichloropropane	25.0	U	28.5	29.7	114	119	1	54.0-143			4.21	21
1,2,3-Trimethylbenzene	25.0	U	27.4	28.8	110	115	1	48.0-138			5.01	20
1,2,4-Trimethylbenzene	25.0	U	28.3	29.2	113	117	1	41.0-146			3.11	20
1,3,5-Trimethylbenzene	25.0	U	29.2	29.7	117	119	1	44.0-143			1.73	20
Vinyl chloride	25.0	U	28.4	29.8	114	119	1	24.0-153			4.58	20
Xylenes, Total	75.0	U	77.8	79.1	104	105	1	41.0-148			1.66	20
(S) Toluene-d8					92.9	91.8		80.0-120				
(S) Dibromofluoromethane					105	105		76.0-123				
(S) 4-Bromofluorobenzene					111	110		80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993585-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993585-02 05/16/18 18:39 • (MS) R3310485-7 05/16/18 19:44 • (MSD) R3310485-8 05/16/18 20:05

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 %
Bromochloromethane	25.0	U	30.5	31.2	122	125	1	53.0-138			2.49	20
Acetone	125	U	109	120	87.1	96.0	1	10.0-139			9.71	25
Acrylonitrile	125	U	142	165	114	132	1	46.0-159			15.0	23
Benzene	25.0	U	32.1	32.4	128	129	1	34.0-147			0.791	20
Bromobenzene	25.0	U	32.3	31.8	129	127	1	51.0-137			1.40	20
Bromodichloromethane	25.0	U	28.3	28.2	113	113	1	52.0-135			0.109	20
Bromoform	25.0	U	28.8	29.1	115	116	1	50.0-146			0.914	20
Bromomethane	25.0	U	25.0	24.2	100	96.8	1	10.0-160			3.30	23
n-Butylbenzene	25.0	U	25.9	25.6	104	103	1	50.0-144			1.04	20
sec-Butylbenzene	25.0	U	30.0	29.3	120	117	1	48.0-143			2.35	20
tert-Butylbenzene	25.0	U	29.8	29.1	119	116	1	50.0-142			2.36	20
trans-1,4-Dichloro-2-butene	25.0	U	38.8	38.9	155	156	1	40.0-150	J5	J5	0.185	21
Carbon disulfide	25.0	U	30.7	30.8	123	123	1	10.0-147			0.279	20
Carbon tetrachloride	25.0	U	31.6	32.1	126	128	1	41.0-138			1.63	20
Chlorobenzene	25.0	U	27.8	27.4	111	110	1	52.0-141			1.26	20
Chlorodibromomethane	25.0	U	26.0	26.5	104	106	1	54.0-142			1.93	20
Chloroethane	25.0	U	26.2	25.1	105	101	1	23.0-160			4.02	20
Chloroform	25.0	U	30.0	30.3	120	121	1	50.0-139			1.10	20
Chloromethane	25.0	U	36.2	36.1	145	144	1	14.0-151			0.400	20
2-Chlorotoluene	25.0	U	32.7	32.4	131	130	1	48.0-142			0.783	20
4-Chlorotoluene	25.0	U	32.5	32.0	130	128	1	52.0-139			1.63	20
1,2-Dibromo-3-Chloropropane	25.0	U	24.9	25.4	99.4	101	1	49.0-144			2.05	24
1,2-Dibromoethane	25.0	U	27.1	26.5	108	106	1	54.0-140			2.23	20
Dibromomethane	25.0	U	30.0	30.1	120	120	1	53.0-138			0.153	20
1,2-Dichlorobenzene	25.0	U	28.4	28.2	114	113	1	56.0-139			0.821	20
1,3-Dichlorobenzene	25.0	U	29.7	29.6	119	118	1	50.0-141			0.537	20
1,4-Dichlorobenzene	25.0	U	29.3	29.3	117	117	1	53.0-136			0.216	20
Dichlorodifluoromethane	25.0	U	32.2	32.8	129	131	1	20.0-160			1.99	21
2-Hexanone	125	U	136	136	109	109	1	36.0-145			0.254	23
1,1-Dichloroethane	25.0	U	35.5	35.7	142	143	1	47.0-143			0.430	20
1,2-Dichloroethane	25.0	U	32.8	33.6	131	134	1	47.0-141			2.52	20
Iodomethane	125	U	148	151	118	121	1	30.0-151			2.05	20
1,1-Dichloroethene	25.0	U	29.4	30.0	118	120	1	31.0-148			1.84	20
cis-1,2-Dichloroethene	25.0	1.81	30.8	31.2	116	117	1	43.0-142			1.38	20
trans-1,2-Dichloroethene	25.0	U	30.6	30.8	122	123	1	36.0-141			0.763	20
1,2-Dichloropropane	25.0	U	32.1	32.7	128	131	1	51.0-141			1.75	20
1,1-Dichloropropene	25.0	U	36.4	36.3	146	145	1	42.0-146			0.131	20
1,3-Dichloropropane	25.0	U	30.3	29.8	121	119	1	58.0-139			1.46	20
cis-1,3-Dichloropropene	25.0	U	29.5	29.1	118	116	1	53.0-139			1.40	20
trans-1,3-Dichloropropene	25.0	U	29.6	29.5	118	118	1	51.0-143			0.376	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993585-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993585-02 05/16/18 18:39 • (MS) R3310485-7 05/16/18 19:44 • (MSD) R3310485-8 05/16/18 20:05

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 %
2,2-Dichloropropane	25.0	U	34.0	34.2	136	137	1	43.0-139			0.583	20
Di-isopropyl ether	25.0	U	36.0	36.0	144	144	1	44.0-144			0.181	20
Ethylbenzene	25.0	U	27.3	26.9	109	108	1	42.0-147			1.41	20
Hexachloro-1,3-butadiene	25.0	U	17.2	17.6	69.0	70.3	1	44.0-146			1.90	21
n-Hexane	25.0	U	30.6	30.5	122	122	1	13.0-145			0.0647	20
Isopropylbenzene	25.0	U	33.0	32.7	132	131	1	48.0-141			0.899	20
p-Isopropyltoluene	25.0	U	27.5	26.8	110	107	1	49.0-146			2.36	20
2-Butanone (MEK)	125	U	152	157	122	125	1	12.0-149			2.86	24
Methylene Chloride	25.0	U	28.7	29.2	115	117	1	42.0-135			1.43	20
4-Methyl-2-pentanone (MIBK)	125	U	150	149	120	119	1	44.0-160			1.11	22
Methyl tert-butyl ether	25.0	U	30.5	31.0	122	124	1	42.0-142			1.50	20
Naphthalene	25.0	U	24.1	23.6	96.5	94.3	1	42.0-146			2.37	24
Vinyl acetate	125	U	199	198	159	159	1	30.0-160			0.220	20
n-Propylbenzene	25.0	U	32.6	32.1	130	128	1	47.0-144			1.36	20
Styrene	25.0	U	32.6	32.3	130	129	1	47.0-147			0.656	20
1,1,1,2-Tetrachloroethane	25.0	U	27.4	26.5	110	106	1	52.0-140			3.29	20
1,1,2,2-Tetrachloroethane	25.0	U	30.6	30.1	123	120	1	46.0-149			1.88	20
Tetrachloroethene	25.0	1.66	29.3	29.8	111	112	1	38.0-147			1.53	20
Toluene	25.0	U	28.5	28.2	114	113	1	42.0-141			1.11	20
1,1,2-Trichlorotrifluoroethane	25.0	U	37.6	38.6	150	154	1	40.0-151		J5	2.65	21
1,2,3-Trichlorobenzene	25.0	U	20.0	19.1	79.9	76.3	1	45.0-145			4.53	22
1,2,4-Trichlorobenzene	25.0	U	20.6	19.8	82.5	79.2	1	49.0-147			4.19	21
1,1,1-Trichloroethane	25.0	U	32.0	32.6	128	131	1	46.0-140			2.13	20
1,1,2-Trichloroethane	25.0	U	25.6	25.1	102	100	1	54.0-139			2.11	20
Trichloroethene	25.0	4.07	31.6	32.4	110	113	1	32.0-156			2.47	20
Trichlorofluoromethane	25.0	U	34.1	34.5	136	138	1	32.0-152			1.33	20
1,2,3-Trichloropropane	25.0	U	31.8	30.9	127	124	1	54.0-143			2.80	21
1,2,3-Trimethylbenzene	25.0	U	29.5	29.4	118	117	1	48.0-138			0.403	20
1,2,4-Trimethylbenzene	25.0	U	30.1	29.3	120	117	1	41.0-146			2.60	20
1,3,5-Trimethylbenzene	25.0	U	30.8	30.3	123	121	1	44.0-143			1.50	20
Vinyl chloride	25.0	U	29.7	30.3	119	121	1	24.0-153			1.77	20
Xylenes, Total	75.0	U	82.4	82.6	110	110	1	41.0-148			0.242	20
(S) Toluene-d8					93.8	93.1		80.0-120				
(S) Dibromofluoromethane					104	105		76.0-123				
(S) 4-Bromofluorobenzene					110	108		80.0-120				

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



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



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.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

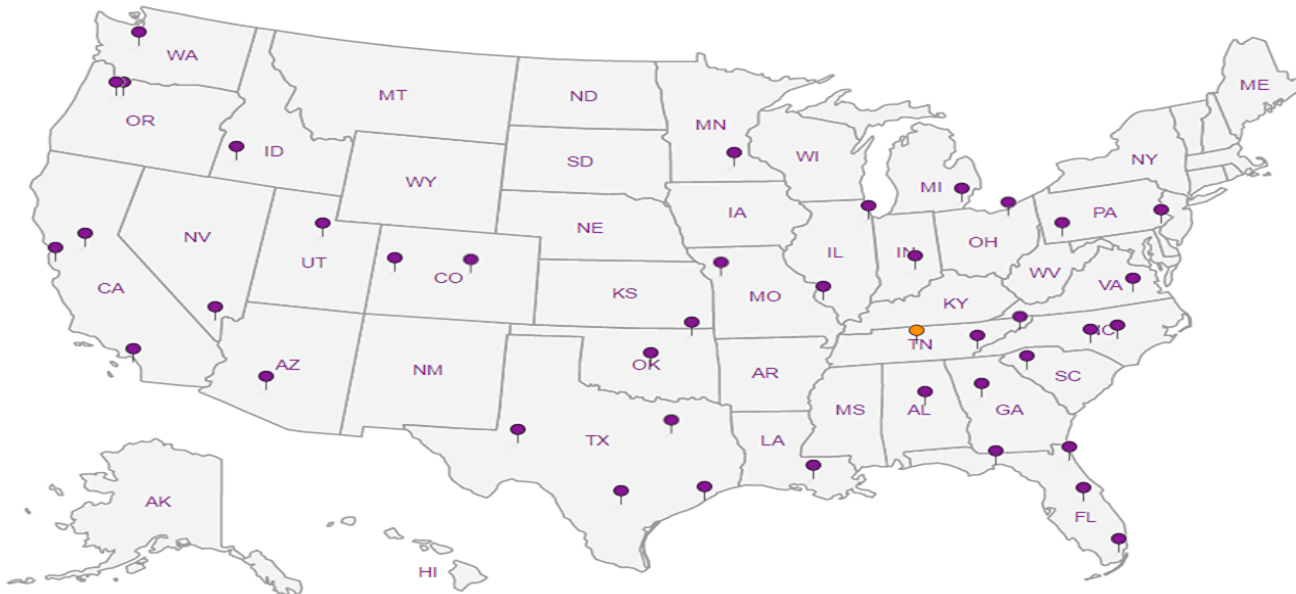
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater 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.
1215 4th Ave STE 1350
SEATTLE, WA 98161

Billing Information:
PES ENVIRONMENTAL INC
1215 4th Ave STE 1350
Attn: Accounts Payable

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2



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



Report to:
Bill Haldeeman

Email To:
BHaldeeman@pesenv.com

Project Description: American Lichen

City/State Collected: Seattle, WA

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

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Collected by (print):
Karsten Springstead

Site/Facility ID #
1413.001.05.601

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
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts														
MW-160-125	Grab	SS	125	5-10-18	1300	5	X	X												
MW-160-127.5		SS	127.5	5-10-18	1320	5	X	X												01
B-246-6			6	5-11-18	900	1	X	X												02
B-246-11			11		910	1	X	X												03
B-246-15			15		915	1	X	X												04
B-246-25			25		945	1	X	X												05
B-246-30			30		955	1	X	X												06
B-246-35			35		1005	1	X	X												07
B-246-40			40		1035	1	X	X												08
B-246-43			43		1040	1	X	X												09

V8260C VOCs 40ml/MeOH/Syr/MeOH
100% MeOH, 100% MeOH, 2oz Clr-No Pres

* 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 # 4261 9220 0506

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: 5-11-18 Time: 1530

Received by: (Signature) *[Signature]*

Trip Blank Received: Yes / No
HPL / MeOH
TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: 4.4°C Bottles Received: 95

Relinquished by: (Signature)

Date: Time:

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

Date: 5/12/18 Time: 0830

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

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 2 of 2



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



Report to:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

Project Description: **AMERICAN LINEN**

City/State
Collected:

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

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Collected by (print):
Karsten Springstead

Site/Facility ID #
1413.001.05.601

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
Ctrs

V8260C VOCs 40ml/NaHSO4/Syr/MeOH

dry wt, voc screen 2ozClr-NoPres

L# **993581**

Table #

Acctnum: **PESENVSWA**

Template: **T134663**

Prelogin: **P647547**

TSR: **110 - Brian Ford**

PB: **4-4-18 cm**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Ctrs												
B-246-45	Grab	SS	45	5-11-18	1050	5	X	X										11
B-246-50		SS	50		1100	5	X	X										12
B-246-55		SS	55		1110	5	X	X										13
B-246-60		SS	60		1145	5	X	X										14
B-246-65		SS	65		1155	5	X	X										15
B-246-70		SS	70		1205	5	X	X										16
B-246-75		SS	75		1215	5	X	X										17
B-246-80		SS	80		1225	5	X	X										18
B-926-100		SS	100		800	5	X	X										19
TRIP BLANK-051118				5-11-18		1	X											20

* 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: NP	<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: **5-11-18** Time: **1530**

Received by: (Signature)

Trip Blank Received: **Yes/No**
1 **NCL/MeOH**
TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: **4.49F** °C Bottles Received: **95**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

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

Date: **5/12/18** Time: **0827**

Hold:

Condition: **NCF / OK**



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	05/16/2018 13:55	WG111590

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	0.0198	J	0.0157	0.0286	1	05/13/2018 22:20	WG110914
Acrylonitrile	U		0.00218	0.0143	1	05/13/2018 22:20	WG110914
Benzene	U		0.000458	0.00114	1	05/13/2018 22:20	WG110914
Bromobenzene	U		0.00120	0.0143	1	05/13/2018 22:20	WG110914
Bromodichloromethane	U		0.000902	0.00286	1	05/13/2018 22:20	WG110914
Bromochloromethane	U		0.00129	0.00572	1	05/13/2018 22:20	WG110914
Bromoform	U	UJ	0.00685	0.0286	1	05/13/2018 22:20	WG110914
Bromomethane	U		0.00424	0.0143	1	05/13/2018 22:20	WG110914
n-Butylbenzene	U		0.00440	0.0143	1	05/13/2018 22:20	WG110914
sec-Butylbenzene	U		0.00290	0.0143	1	05/13/2018 22:20	WG110914
tert-Butylbenzene	U		0.00177	0.00572	1	05/13/2018 22:20	WG110914
Carbon disulfide	U		0.00465	0.0143	1	05/13/2018 22:20	WG110914
Carbon tetrachloride	U		0.00124	0.00572	1	05/13/2018 22:20	WG110914
Chlorobenzene	U		0.000656	0.00286	1	05/13/2018 22:20	WG110914
Chlorodibromomethane	U		0.000515	0.00286	1	05/13/2018 22:20	WG110914
Chloroethane	U		0.00124	0.00572	1	05/13/2018 22:20	WG110914
Chloroform	U		0.000475	0.00286	1	05/13/2018 22:20	WG110914
Chloromethane	U	UJ	0.00159	0.0143	1	05/13/2018 22:20	WG110914
2-Chlorotoluene	U		0.00105	0.00286	1	05/13/2018 22:20	WG110914
4-Chlorotoluene	U		0.00129	0.00572	1	05/13/2018 22:20	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	05/13/2018 22:20	WG110914
1,2-Dibromoethane	U		0.000601	0.00286	1	05/13/2018 22:20	WG110914
Dibromomethane	U		0.00114	0.00572	1	05/13/2018 22:20	WG110914
1,2-Dichlorobenzene	U		0.00166	0.00572	1	05/13/2018 22:20	WG110914
1,3-Dichlorobenzene	U		0.00195	0.00572	1	05/13/2018 22:20	WG110914
1,4-Dichlorobenzene	U		0.00226	0.00572	1	05/13/2018 22:20	WG110914
Dichlorodifluoromethane	U		0.000937	0.00286	1	05/13/2018 22:20	WG110914
1,1-Dichloroethane	U		0.000658	0.00286	1	05/13/2018 22:20	WG110914
1,2-Dichloroethane	U		0.000544	0.00286	1	05/13/2018 22:20	WG110914
1,1-Dichloroethene	U		0.000572	0.00286	1	05/13/2018 22:20	WG110914
cis-1,2-Dichloroethene	0.000832	J	0.000790	0.00286	1	05/13/2018 22:20	WG110914
trans-1,2-Dichloroethene	U		0.00164	0.00572	1	05/13/2018 22:20	WG110914
1,2-Dichloropropane	U		0.00145	0.00572	1	05/13/2018 22:20	WG110914
1,1-Dichloropropene	U		0.000801	0.00286	1	05/13/2018 22:20	WG110914
1,3-Dichloropropane	U		0.00200	0.00572	1	05/13/2018 22:20	WG110914
cis-1,3-Dichloropropene	U		0.000776	0.00286	1	05/13/2018 22:20	WG110914
trans-1,3-Dichloropropene	U		0.00175	0.00572	1	05/13/2018 22:20	WG110914
trans-1,4-Dichloro-2-butene	U		0.00160	0.00572	1	05/13/2018 22:20	WG110914
2,2-Dichloropropane	U		0.000908	0.00286	1	05/13/2018 22:20	WG110914
Di-isopropyl ether	U		0.000401	0.00114	1	05/13/2018 22:20	WG110914
Ethylbenzene	U		0.000607	0.00286	1	05/13/2018 22:20	WG110914
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	05/13/2018 22:20	WG110914
2-Hexanone	U		0.0114	0.0286	1	05/13/2018 22:20	WG110914
n-Hexane	0.00395	J	0.00121	0.00572	1	05/13/2018 22:20	WG110914
Iodomethane	U		0.00693	0.0143	1	05/13/2018 22:20	WG110914
Isopropylbenzene	U		0.000988	0.00286	1	05/13/2018 22:20	WG110914
p-Isopropyltoluene	U		0.00267	0.00572	1	05/13/2018 22:20	WG110914
2-Butanone (MEK)	U		0.0143	0.0286	1	05/13/2018 22:20	WG110914
Methylene Chloride	U		0.00760	0.0286	1	05/13/2018 22:20	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	05/13/2018 22:20	WG110914

- 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	UJ	0.000338	0.00114	1	05/13/2018 22:20	WG1110914
Naphthalene	U		0.00357	0.0143	1	05/13/2018 22:20	WG1110914
n-Propylbenzene	U	UJ	0.00135	0.00572	1	05/13/2018 22:20	WG1110914
Styrene	U		0.00313	0.0143	1	05/13/2018 22:20	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000572	0.00286	1	05/13/2018 22:20	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000447	0.00286	1	05/13/2018 22:20	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000773	0.00286	1	05/13/2018 22:20	WG1110914
Tetrachloroethene	0.00262	J	0.000801	0.00286	1	05/13/2018 22:20	WG1110914
Toluene	0.00265	J	0.00143	0.00572	1	05/13/2018 22:20	WG1110914
1,2,3-Trichlorobenzene	U		0.000716	0.00286	1	05/13/2018 22:20	WG1110914
1,2,4-Trichlorobenzene	U		0.00552	0.0143	1	05/13/2018 22:20	WG1110914
1,1,1-Trichloroethane	U		0.000315	0.00286	1	05/13/2018 22:20	WG1110914
1,1,2-Trichloroethane	U		0.00101	0.00286	1	05/13/2018 22:20	WG1110914
Trichloroethene	0.000576	J	0.000458	0.00114	1	05/13/2018 22:20	WG1110914
Trichlorofluoromethane	U		0.000572	0.00286	1	05/13/2018 22:20	WG1110914
1,2,3-Trichloropropane	U		0.00584	0.0143	1	05/13/2018 22:20	WG1110914
1,2,4-Trimethylbenzene	U		0.00133	0.00572	1	05/13/2018 22:20	WG1110914
1,2,3-Trimethylbenzene	U		0.00132	0.00572	1	05/13/2018 22:20	WG1110914
1,3,5-Trimethylbenzene	U		0.00124	0.00572	1	05/13/2018 22:20	WG1110914
Vinyl acetate	U		0.00403	0.0143	1	05/13/2018 22:20	WG1110914
Vinyl chloride	U		0.000782	0.00286	1	05/13/2018 22:20	WG1110914
Xylenes, Total	U		0.00547	0.00744	1	05/13/2018 22:20	WG1110914
(S) Toluene-d8	115			80.0-120		05/13/2018 22:20	WG1110914
(S) Dibromofluoromethane	93.3			74.0-131		05/13/2018 22:20	WG1110914
(S) 4-Bromofluorobenzene	100			64.0-132		05/13/2018 22:20	WG1110914

- 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	Batch
	%			date / time	
Total Solids	86.6		1	05/16/2018 13:55	WG111590

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		0.0158	0.0289	1	05/13/2018 22:39	WG110914	
Acrylonitrile	U		0.00219	0.0144	1	05/13/2018 22:39	WG110914	
Benzene	U		0.000462	0.00115	1	05/13/2018 22:39	WG110914	
Bromobenzene	U		0.00121	0.0144	1	05/13/2018 22:39	WG110914	
Bromodichloromethane	U		0.000910	0.00289	1	05/13/2018 22:39	WG110914	
Bromochloromethane	U		0.00130	0.00577	1	05/13/2018 22:39	WG110914	
Bromoform	U	UJ	JO	0.00691	0.0289	1	05/13/2018 22:39	WG110914
Bromomethane	U		0.00427	0.0144	1	05/13/2018 22:39	WG110914	
n-Butylbenzene	U		0.00443	0.0144	1	05/13/2018 22:39	WG110914	
sec-Butylbenzene	U		0.00292	0.0144	1	05/13/2018 22:39	WG110914	
tert-Butylbenzene	U		0.00179	0.00577	1	05/13/2018 22:39	WG110914	
Carbon disulfide	U		0.00469	0.0144	1	05/13/2018 22:39	WG110914	
Carbon tetrachloride	U		0.00125	0.00577	1	05/13/2018 22:39	WG110914	
Chlorobenzene	U		0.000662	0.00289	1	05/13/2018 22:39	WG110914	
Chlorodibromomethane	U		0.000520	0.00289	1	05/13/2018 22:39	WG110914	
Chloroethane	U		0.00125	0.00577	1	05/13/2018 22:39	WG110914	
Chloroform	U		0.000479	0.00289	1	05/13/2018 22:39	WG110914	
Chloromethane	U	UJ	JO	0.00161	0.0144	1	05/13/2018 22:39	WG110914
2-Chlorotoluene	U		0.00106	0.00289	1	05/13/2018 22:39	WG110914	
4-Chlorotoluene	U		0.00130	0.00577	1	05/13/2018 22:39	WG110914	
1,2-Dibromo-3-Chloropropane	U		0.00589	0.0289	1	05/13/2018 22:39	WG110914	
1,2-Dibromoethane	U		0.000606	0.00289	1	05/13/2018 22:39	WG110914	
Dibromomethane	U		0.00115	0.00577	1	05/13/2018 22:39	WG110914	
1,2-Dichlorobenzene	U		0.00167	0.00577	1	05/13/2018 22:39	WG110914	
1,3-Dichlorobenzene	U		0.00196	0.00577	1	05/13/2018 22:39	WG110914	
1,4-Dichlorobenzene	U		0.00227	0.00577	1	05/13/2018 22:39	WG110914	
Dichlorodifluoromethane	U		J3	0.000945	0.00289	1	05/13/2018 22:39	WG110914
1,1-Dichloroethane	U		0.000664	0.00289	1	05/13/2018 22:39	WG110914	
1,2-Dichloroethane	U		0.000549	0.00289	1	05/13/2018 22:39	WG110914	
1,1-Dichloroethene	U		0.000577	0.00289	1	05/13/2018 22:39	WG110914	
cis-1,2-Dichloroethene	U		0.000797	0.00289	1	05/13/2018 22:39	WG110914	
trans-1,2-Dichloroethene	U		0.00165	0.00577	1	05/13/2018 22:39	WG110914	
1,2-Dichloropropane	U		0.00147	0.00577	1	05/13/2018 22:39	WG110914	
1,1-Dichloropropene	U		0.000808	0.00289	1	05/13/2018 22:39	WG110914	
1,3-Dichloropropane	U		0.00202	0.00577	1	05/13/2018 22:39	WG110914	
cis-1,3-Dichloropropene	U		0.000783	0.00289	1	05/13/2018 22:39	WG110914	
trans-1,3-Dichloropropene	U		0.00177	0.00577	1	05/13/2018 22:39	WG110914	
trans-1,4-Dichloro-2-butene	U		0.00162	0.00577	1	05/13/2018 22:39	WG110914	
2,2-Dichloropropane	U		0.000916	0.00289	1	05/13/2018 22:39	WG110914	
Di-isopropyl ether	U		0.000404	0.00115	1	05/13/2018 22:39	WG110914	
Ethylbenzene	U		0.000612	0.00289	1	05/13/2018 22:39	WG110914	
Hexachloro-1,3-butadiene	U		0.0147	0.0289	1	05/13/2018 22:39	WG110914	
2-Hexanone	U		0.0115	0.0289	1	05/13/2018 22:39	WG110914	
n-Hexane	U		J4	0.00122	0.00577	1	05/13/2018 22:39	WG110914
Iodomethane	U		0.00699	0.0144	1	05/13/2018 22:39	WG110914	
Isopropylbenzene	U		0.000997	0.00289	1	05/13/2018 22:39	WG110914	
p-Isopropyltoluene	U		0.00269	0.00577	1	05/13/2018 22:39	WG110914	
2-Butanone (MEK)	U		0.0144	0.0289	1	05/13/2018 22:39	WG110914	
Methylene Chloride	U		0.00767	0.0289	1	05/13/2018 22:39	WG110914	
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0289	1	05/13/2018 22:39	WG110914	

- 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	0.000468	J JJ0 J4	0.000341	0.00115	1	05/13/2018 22:39	WG1110914
Naphthalene	U		0.00360	0.0144	1	05/13/2018 22:39	WG1110914
n-Propylbenzene	U	UJ J4	0.00136	0.00577	1	05/13/2018 22:39	WG1110914
Styrene	U		0.00315	0.0144	1	05/13/2018 22:39	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000577	0.00289	1	05/13/2018 22:39	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000450	0.00289	1	05/13/2018 22:39	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000779	0.00289	1	05/13/2018 22:39	WG1110914
Tetrachloroethene	U		0.000808	0.00289	1	05/13/2018 22:39	WG1110914
Toluene	U		0.00144	0.00577	1	05/13/2018 22:39	WG1110914
1,2,3-Trichlorobenzene	U		0.000722	0.00289	1	05/13/2018 22:39	WG1110914
1,2,4-Trichlorobenzene	U		0.00557	0.0144	1	05/13/2018 22:39	WG1110914
1,1,1-Trichloroethane	U		0.000318	0.00289	1	05/13/2018 22:39	WG1110914
1,1,2-Trichloroethane	U		0.00102	0.00289	1	05/13/2018 22:39	WG1110914
Trichloroethene	U		0.000462	0.00115	1	05/13/2018 22:39	WG1110914
Trichlorofluoromethane	U		0.000577	0.00289	1	05/13/2018 22:39	WG1110914
1,2,3-Trichloropropane	U		0.00589	0.0144	1	05/13/2018 22:39	WG1110914
1,2,4-Trimethylbenzene	U		0.00134	0.00577	1	05/13/2018 22:39	WG1110914
1,2,3-Trimethylbenzene	U		0.00133	0.00577	1	05/13/2018 22:39	WG1110914
1,3,5-Trimethylbenzene	U		0.00125	0.00577	1	05/13/2018 22:39	WG1110914
Vinyl acetate	U		0.00406	0.0144	1	05/13/2018 22:39	WG1110914
Vinyl chloride	U		0.000789	0.00289	1	05/13/2018 22:39	WG1110914
Xylenes, Total	U		0.00552	0.00751	1	05/13/2018 22:39	WG1110914
(S) Toluene-d8	117			80.0-120		05/13/2018 22:39	WG1110914
(S) Dibromofluoromethane	91.7			74.0-131		05/13/2018 22:39	WG1110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/13/2018 22:39	WG1110914

- 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	Batch
	%			date / time	
Total Solids	84.2		1	05/16/2018 13:55	WG111590

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		0.0163	0.0297	1	05/13/2018 22:59	WG110914
Acrylonitrile	U		0.00226	0.0148	1	05/13/2018 22:59	WG110914
Benzene	U		0.000475	0.00119	1	05/13/2018 22:59	WG110914
Bromobenzene	U		0.00125	0.0148	1	05/13/2018 22:59	WG110914
Bromodichloromethane	U		0.000935	0.00297	1	05/13/2018 22:59	WG110914
Bromochloromethane	U		0.00134	0.00593	1	05/13/2018 22:59	WG110914
Bromoform	U	UJ JO	0.00710	0.0297	1	05/13/2018 22:59	WG110914
Bromomethane	U		0.00439	0.0148	1	05/13/2018 22:59	WG110914
n-Butylbenzene	U		0.00456	0.0148	1	05/13/2018 22:59	WG110914
sec-Butylbenzene	U		0.00300	0.0148	1	05/13/2018 22:59	WG110914
tert-Butylbenzene	U		0.00184	0.00593	1	05/13/2018 22:59	WG110914
Carbon disulfide	U		0.00482	0.0148	1	05/13/2018 22:59	WG110914
Carbon tetrachloride	U		0.00128	0.00593	1	05/13/2018 22:59	WG110914
Chlorobenzene	U		0.000680	0.00297	1	05/13/2018 22:59	WG110914
Chlorodibromomethane	U		0.000534	0.00297	1	05/13/2018 22:59	WG110914
Chloroethane	U		0.00128	0.00593	1	05/13/2018 22:59	WG110914
Chloroform	U		0.000493	0.00297	1	05/13/2018 22:59	WG110914
Chloromethane	U	UJ JO	0.00165	0.0148	1	05/13/2018 22:59	WG110914
2-Chlorotoluene	U		0.00109	0.00297	1	05/13/2018 22:59	WG110914
4-Chlorotoluene	U		0.00134	0.00593	1	05/13/2018 22:59	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00605	0.0297	1	05/13/2018 22:59	WG110914
1,2-Dibromoethane	U		0.000623	0.00297	1	05/13/2018 22:59	WG110914
Dibromomethane	U		0.00119	0.00593	1	05/13/2018 22:59	WG110914
1,2-Dichlorobenzene	U		0.00172	0.00593	1	05/13/2018 22:59	WG110914
1,3-Dichlorobenzene	U		0.00202	0.00593	1	05/13/2018 22:59	WG110914
1,4-Dichlorobenzene	U		0.00234	0.00593	1	05/13/2018 22:59	WG110914
Dichlorodifluoromethane	U	J3	0.000971	0.00297	1	05/13/2018 22:59	WG110914
1,1-Dichloroethane	U		0.000682	0.00297	1	05/13/2018 22:59	WG110914
1,2-Dichloroethane	U		0.000564	0.00297	1	05/13/2018 22:59	WG110914
1,1-Dichloroethene	U		0.000593	0.00297	1	05/13/2018 22:59	WG110914
cis-1,2-Dichloroethene	0.00324		0.000819	0.00297	1	05/13/2018 22:59	WG110914
trans-1,2-Dichloroethene	U		0.00170	0.00593	1	05/13/2018 22:59	WG110914
1,2-Dichloropropane	U		0.00151	0.00593	1	05/13/2018 22:59	WG110914
1,1-Dichloropropene	U		0.000831	0.00297	1	05/13/2018 22:59	WG110914
1,3-Dichloropropane	U		0.00208	0.00593	1	05/13/2018 22:59	WG110914
cis-1,3-Dichloropropene	U		0.000805	0.00297	1	05/13/2018 22:59	WG110914
trans-1,3-Dichloropropene	U		0.00182	0.00593	1	05/13/2018 22:59	WG110914
trans-1,4-Dichloro-2-butene	U		0.00166	0.00593	1	05/13/2018 22:59	WG110914
2,2-Dichloropropane	U		0.000941	0.00297	1	05/13/2018 22:59	WG110914
Di-isopropyl ether	U		0.000415	0.00119	1	05/13/2018 22:59	WG110914
Ethylbenzene	U		0.000629	0.00297	1	05/13/2018 22:59	WG110914
Hexachloro-1,3-butadiene	U		0.0151	0.0297	1	05/13/2018 22:59	WG110914
2-Hexanone	U		0.0119	0.0297	1	05/13/2018 22:59	WG110914
n-Hexane	U	J4	0.00126	0.00593	1	05/13/2018 22:59	WG110914
Iodomethane	U		0.00718	0.0148	1	05/13/2018 22:59	WG110914
Isopropylbenzene	U		0.00102	0.00297	1	05/13/2018 22:59	WG110914
p-Isopropyltoluene	U		0.00277	0.00593	1	05/13/2018 22:59	WG110914
2-Butanone (MEK)	U		0.0148	0.0297	1	05/13/2018 22:59	WG110914
Methylene Chloride	U		0.00788	0.0297	1	05/13/2018 22:59	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0297	1	05/13/2018 22:59	WG110914

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

JC 6/14/18



Collected date/time: 05/11/18 09:00

L993557

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	0.000453	J JJ0 J4	0.000350	0.00119	1	05/13/2018 22:59	WG1110914
Naphthalene	U		0.00370	0.0148	1	05/13/2018 22:59	WG1110914
n-Propylbenzene	U	UJ J4	0.00140	0.00593	1	05/13/2018 22:59	WG1110914
Styrene	U		0.00324	0.0148	1	05/13/2018 22:59	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000593	0.00297	1	05/13/2018 22:59	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000463	0.00297	1	05/13/2018 22:59	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000801	0.00297	1	05/13/2018 22:59	WG1110914
Tetrachloroethene	0.00396		0.000831	0.00297	1	05/13/2018 22:59	WG1110914
Toluene	U		0.00148	0.00593	1	05/13/2018 22:59	WG1110914
1,2,3-Trichlorobenzene	U		0.000742	0.00297	1	05/13/2018 22:59	WG1110914
1,2,4-Trichlorobenzene	U		0.00572	0.0148	1	05/13/2018 22:59	WG1110914
1,1,1-Trichloroethane	U		0.000326	0.00297	1	05/13/2018 22:59	WG1110914
1,1,2-Trichloroethane	U		0.00105	0.00297	1	05/13/2018 22:59	WG1110914
Trichloroethene	0.00192		0.000475	0.00119	1	05/13/2018 22:59	WG1110914
Trichlorofluoromethane	U		0.000593	0.00297	1	05/13/2018 22:59	WG1110914
1,2,3-Trichloropropane	U		0.00605	0.0148	1	05/13/2018 22:59	WG1110914
1,2,4-Trimethylbenzene	U		0.00138	0.00593	1	05/13/2018 22:59	WG1110914
1,2,3-Trimethylbenzene	U		0.00136	0.00593	1	05/13/2018 22:59	WG1110914
1,3,5-Trimethylbenzene	U		0.00128	0.00593	1	05/13/2018 22:59	WG1110914
Vinyl acetate	U		0.00418	0.0148	1	05/13/2018 22:59	WG1110914
Vinyl chloride	U		0.000811	0.00297	1	05/13/2018 22:59	WG1110914
Xylenes, Total	U		0.00567	0.00772	1	05/13/2018 22:59	WG1110914
(S) Toluene-d8	118			80.0-120		05/13/2018 22:59	WG1110914
(S) Dibromofluoromethane	82.8			74.0-131		05/13/2018 22:59	WG1110914
(S) 4-Bromofluorobenzene	98.7			64.0-132		05/13/2018 22:59	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.7		1	05/16/2018 13:55	WG111590

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		0.0162	0.0295	1	05/13/2018 23:18	WG110914	
Acrylonitrile	U		0.00224	0.0148	1	05/13/2018 23:18	WG110914	
Benzene	U		0.000472	0.00118	1	05/13/2018 23:18	WG110914	
Bromobenzene	U		0.00124	0.0148	1	05/13/2018 23:18	WG110914	
Bromodichloromethane	U		0.000931	0.00295	1	05/13/2018 23:18	WG110914	
Bromochloromethane	U		0.00133	0.00590	1	05/13/2018 23:18	WG110914	
Bromoform	U	UJ	JO	0.00706	0.0295	1	05/13/2018 23:18	WG110914
Bromomethane	U		0.00437	0.0148	1	05/13/2018 23:18	WG110914	
n-Butylbenzene	U		0.00453	0.0148	1	05/13/2018 23:18	WG110914	
sec-Butylbenzene	U		0.00299	0.0148	1	05/13/2018 23:18	WG110914	
tert-Butylbenzene	U		0.00183	0.00590	1	05/13/2018 23:18	WG110914	
Carbon disulfide	U		0.00479	0.0148	1	05/13/2018 23:18	WG110914	
Carbon tetrachloride	U		0.00128	0.00590	1	05/13/2018 23:18	WG110914	
Chlorobenzene	U		0.000677	0.00295	1	05/13/2018 23:18	WG110914	
Chlorodibromomethane	U		0.000531	0.00295	1	05/13/2018 23:18	WG110914	
Chloroethane	U		0.00128	0.00590	1	05/13/2018 23:18	WG110914	
Chloroform	U		0.000490	0.00295	1	05/13/2018 23:18	WG110914	
Chloromethane	U	UJ	JO	0.00164	0.0148	1	05/13/2018 23:18	WG110914
2-Chlorotoluene	U		0.00109	0.00295	1	05/13/2018 23:18	WG110914	
4-Chlorotoluene	U		0.00133	0.00590	1	05/13/2018 23:18	WG110914	
1,2-Dibromo-3-Chloropropane	U		0.00602	0.0295	1	05/13/2018 23:18	WG110914	
1,2-Dibromoethane	U		0.000620	0.00295	1	05/13/2018 23:18	WG110914	
Dibromomethane	U		0.00118	0.00590	1	05/13/2018 23:18	WG110914	
1,2-Dichlorobenzene	U		0.00171	0.00590	1	05/13/2018 23:18	WG110914	
1,3-Dichlorobenzene	U		0.00201	0.00590	1	05/13/2018 23:18	WG110914	
1,4-Dichlorobenzene	U		0.00233	0.00590	1	05/13/2018 23:18	WG110914	
Dichlorodifluoromethane	U		J3	0.000966	0.00295	1	05/13/2018 23:18	WG110914
1,1-Dichloroethane	U		0.000679	0.00295	1	05/13/2018 23:18	WG110914	
1,2-Dichloroethane	U		0.000561	0.00295	1	05/13/2018 23:18	WG110914	
1,1-Dichloroethene	U		0.000590	0.00295	1	05/13/2018 23:18	WG110914	
cis-1,2-Dichloroethene	0.00531		0.000815	0.00295	1	05/13/2018 23:18	WG110914	
trans-1,2-Dichloroethene	U		0.00169	0.00590	1	05/13/2018 23:18	WG110914	
1,2-Dichloropropane	U		0.00150	0.00590	1	05/13/2018 23:18	WG110914	
1,1-Dichloropropene	U		0.000827	0.00295	1	05/13/2018 23:18	WG110914	
1,3-Dichloropropane	U		0.00207	0.00590	1	05/13/2018 23:18	WG110914	
cis-1,3-Dichloropropene	U		0.000801	0.00295	1	05/13/2018 23:18	WG110914	
trans-1,3-Dichloropropene	U		0.00181	0.00590	1	05/13/2018 23:18	WG110914	
trans-1,4-Dichloro-2-butene	U		0.00165	0.00590	1	05/13/2018 23:18	WG110914	
2,2-Dichloropropane	U		0.000936	0.00295	1	05/13/2018 23:18	WG110914	
Di-isopropyl ether	U		0.000413	0.00118	1	05/13/2018 23:18	WG110914	
Ethylbenzene	U		0.000626	0.00295	1	05/13/2018 23:18	WG110914	
Hexachloro-1,3-butadiene	U		0.0150	0.0295	1	05/13/2018 23:18	WG110914	
2-Hexanone	U		0.0118	0.0295	1	05/13/2018 23:18	WG110914	
n-Hexane	U		J4	0.00125	0.00590	1	05/13/2018 23:18	WG110914
Iodomethane	U		0.00714	0.0148	1	05/13/2018 23:18	WG110914	
Isopropylbenzene	U		0.00102	0.00295	1	05/13/2018 23:18	WG110914	
p-Isopropyltoluene	U		0.00275	0.00590	1	05/13/2018 23:18	WG110914	
2-Butanone (MEK)	U		0.0148	0.0295	1	05/13/2018 23:18	WG110914	
Methylene Chloride	U		0.00784	0.0295	1	05/13/2018 23:18	WG110914	
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	05/13/2018 23:18	WG110914	

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

JC 6/14/18



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	0.000484	J JJ0 J4	0.000348	0.00118	1	05/13/2018 23:18	WG1110914
Naphthalene	U		0.00368	0.0148	1	05/13/2018 23:18	WG1110914
n-Propylbenzene	U	UJ J4	0.00139	0.00590	1	05/13/2018 23:18	WG1110914
Styrene	U		0.00322	0.0148	1	05/13/2018 23:18	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000590	0.00295	1	05/13/2018 23:18	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000461	0.00295	1	05/13/2018 23:18	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000797	0.00295	1	05/13/2018 23:18	WG1110914
Tetrachloroethene	0.0271		0.000827	0.00295	1	05/13/2018 23:18	WG1110914
Toluene	U		0.00148	0.00590	1	05/13/2018 23:18	WG1110914
1,2,3-Trichlorobenzene	U		0.000738	0.00295	1	05/13/2018 23:18	WG1110914
1,2,4-Trichlorobenzene	U		0.00569	0.0148	1	05/13/2018 23:18	WG1110914
1,1,1-Trichloroethane	U		0.000325	0.00295	1	05/13/2018 23:18	WG1110914
1,1,2-Trichloroethane	U		0.00104	0.00295	1	05/13/2018 23:18	WG1110914
Trichloroethene	0.00638		0.000472	0.00118	1	05/13/2018 23:18	WG1110914
Trichlorofluoromethane	U		0.000590	0.00295	1	05/13/2018 23:18	WG1110914
1,2,3-Trichloropropane	U		0.00602	0.0148	1	05/13/2018 23:18	WG1110914
1,2,4-Trimethylbenzene	U		0.00137	0.00590	1	05/13/2018 23:18	WG1110914
1,2,3-Trimethylbenzene	U		0.00136	0.00590	1	05/13/2018 23:18	WG1110914
1,3,5-Trimethylbenzene	U		0.00128	0.00590	1	05/13/2018 23:18	WG1110914
Vinyl acetate	U		0.00416	0.0148	1	05/13/2018 23:18	WG1110914
Vinyl chloride	U		0.000807	0.00295	1	05/13/2018 23:18	WG1110914
Xylenes, Total	U		0.00564	0.00768	1	05/13/2018 23:18	WG1110914
(S) Toluene-d8	118			80.0-120		05/13/2018 23:18	WG1110914
(S) Dibromofluoromethane	84.0			74.0-131		05/13/2018 23:18	WG1110914
(S) 4-Bromofluorobenzene	102			64.0-132		05/13/2018 23:18	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	05/16/2018 11:50	WG111636

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		0.0155	0.0283	1	05/13/2018 23:37	WG110914
Acrylonitrile	U		0.00215	0.0141	1	05/13/2018 23:37	WG110914
Benzene	0.000583	J J	0.000452	0.00113	1	05/13/2018 23:37	WG110914
Bromobenzene	U		0.00119	0.0141	1	05/13/2018 23:37	WG110914
Bromodichloromethane	U		0.000890	0.00283	1	05/13/2018 23:37	WG110914
Bromochloromethane	U		0.00128	0.00565	1	05/13/2018 23:37	WG110914
Bromoform	U	UJ JO	0.00676	0.0283	1	05/13/2018 23:37	WG110914
Bromomethane	U		0.00418	0.0141	1	05/13/2018 23:37	WG110914
n-Butylbenzene	U		0.00434	0.0141	1	05/13/2018 23:37	WG110914
sec-Butylbenzene	U		0.00286	0.0141	1	05/13/2018 23:37	WG110914
tert-Butylbenzene	U		0.00175	0.00565	1	05/13/2018 23:37	WG110914
Carbon disulfide	U		0.00459	0.0141	1	05/13/2018 23:37	WG110914
Carbon tetrachloride	U		0.00122	0.00565	1	05/13/2018 23:37	WG110914
Chlorobenzene	U		0.000648	0.00283	1	05/13/2018 23:37	WG110914
Chlorodibromomethane	U		0.000509	0.00283	1	05/13/2018 23:37	WG110914
Chloroethane	U		0.00122	0.00565	1	05/13/2018 23:37	WG110914
Chloroform	U		0.000469	0.00283	1	05/13/2018 23:37	WG110914
Chloromethane	U	UJ JO	0.00157	0.0141	1	05/13/2018 23:37	WG110914
2-Chlorotoluene	U		0.00104	0.00283	1	05/13/2018 23:37	WG110914
4-Chlorotoluene	U		0.00128	0.00565	1	05/13/2018 23:37	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0283	1	05/13/2018 23:37	WG110914
1,2-Dibromoethane	U		0.000593	0.00283	1	05/13/2018 23:37	WG110914
Dibromomethane	U		0.00113	0.00565	1	05/13/2018 23:37	WG110914
1,2-Dichlorobenzene	U		0.00164	0.00565	1	05/13/2018 23:37	WG110914
1,3-Dichlorobenzene	U		0.00192	0.00565	1	05/13/2018 23:37	WG110914
1,4-Dichlorobenzene	U		0.00223	0.00565	1	05/13/2018 23:37	WG110914
Dichlorodifluoromethane	U	J3	0.000924	0.00283	1	05/13/2018 23:37	WG110914
1,1-Dichloroethane	U		0.000650	0.00283	1	05/13/2018 23:37	WG110914
1,2-Dichloroethane	U		0.000537	0.00283	1	05/13/2018 23:37	WG110914
1,1-Dichloroethene	U		0.000565	0.00283	1	05/13/2018 23:37	WG110914
cis-1,2-Dichloroethene	0.0196		0.000780	0.00283	1	05/13/2018 23:37	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00565	1	05/13/2018 23:37	WG110914
1,2-Dichloropropane	U		0.00144	0.00565	1	05/13/2018 23:37	WG110914
1,1-Dichloropropene	U		0.000791	0.00283	1	05/13/2018 23:37	WG110914
1,3-Dichloropropane	U		0.00198	0.00565	1	05/13/2018 23:37	WG110914
cis-1,3-Dichloropropene	U		0.000766	0.00283	1	05/13/2018 23:37	WG110914
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	05/13/2018 23:37	WG110914
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	05/13/2018 23:37	WG110914
2,2-Dichloropropane	U		0.000896	0.00283	1	05/13/2018 23:37	WG110914
Di-isopropyl ether	U		0.000396	0.00113	1	05/13/2018 23:37	WG110914
Ethylbenzene	U		0.000599	0.00283	1	05/13/2018 23:37	WG110914
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	05/13/2018 23:37	WG110914
2-Hexanone	U		0.0113	0.0283	1	05/13/2018 23:37	WG110914
n-Hexane	0.00367	J JJ4	0.00120	0.00565	1	05/13/2018 23:37	WG110914
Iodomethane	U		0.00684	0.0141	1	05/13/2018 23:37	WG110914
Isopropylbenzene	U		0.000975	0.00283	1	05/13/2018 23:37	WG110914
p-Isopropyltoluene	U		0.00263	0.00565	1	05/13/2018 23:37	WG110914
2-Butanone (MEK)	U		0.0141	0.0283	1	05/13/2018 23:37	WG110914
Methylene Chloride	U		0.00750	0.0283	1	05/13/2018 23:37	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	05/13/2018 23:37	WG110914

JC 6/14/18

- 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	0.000419	J	0.000333	0.00113	1	05/13/2018 23:37	WG1110914
Naphthalene	U		0.00353	0.0141	1	05/13/2018 23:37	WG1110914
n-Propylbenzene	U	UJ	0.00133	0.00565	1	05/13/2018 23:37	WG1110914
Styrene	U		0.00309	0.0141	1	05/13/2018 23:37	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000565	0.00283	1	05/13/2018 23:37	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	05/13/2018 23:37	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000763	0.00283	1	05/13/2018 23:37	WG1110914
Tetrachloroethene	0.0616		0.000791	0.00283	1	05/13/2018 23:37	WG1110914
Toluene	0.00318	J	0.00141	0.00565	1	05/13/2018 23:37	WG1110914
1,2,3-Trichlorobenzene	U		0.000706	0.00283	1	05/13/2018 23:37	WG1110914
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	05/13/2018 23:37	WG1110914
1,1,1-Trichloroethane	U		0.000311	0.00283	1	05/13/2018 23:37	WG1110914
1,1,2-Trichloroethane	U		0.000998	0.00283	1	05/13/2018 23:37	WG1110914
Trichloroethene	0.0132		0.000452	0.00113	1	05/13/2018 23:37	WG1110914
Trichlorofluoromethane	U		0.000565	0.00283	1	05/13/2018 23:37	WG1110914
1,2,3-Trichloropropane	U		0.00576	0.0141	1	05/13/2018 23:37	WG1110914
1,2,4-Trimethylbenzene	U		0.00131	0.00565	1	05/13/2018 23:37	WG1110914
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	05/13/2018 23:37	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	05/13/2018 23:37	WG1110914
Vinyl acetate	U		0.00398	0.0141	1	05/13/2018 23:37	WG1110914
Vinyl chloride	U		0.000772	0.00283	1	05/13/2018 23:37	WG1110914
Xylenes, Total	U		0.00540	0.00735	1	05/13/2018 23:37	WG1110914
(S) Toluene-d8	118			80.0-120		05/13/2018 23:37	WG1110914
(S) Dibromofluoromethane	81.1			74.0-131		05/13/2018 23:37	WG1110914
(S) 4-Bromofluorobenzene	100			64.0-132		05/13/2018 23:37	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.4		1	05/16/2018 11:50	WG111636

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		0.0153	0.0280	1	05/13/2018 23:56	WG110914
Acrylonitrile	U		0.00212	0.0140	1	05/13/2018 23:56	WG110914
Benzene	U		0.000447	0.00112	1	05/13/2018 23:56	WG110914
Bromobenzene	U		0.00117	0.0140	1	05/13/2018 23:56	WG110914
Bromodichloromethane	U		0.000881	0.00280	1	05/13/2018 23:56	WG110914
Bromochloromethane	U		0.00126	0.00559	1	05/13/2018 23:56	WG110914
Bromoform	U	UJ JO	0.00669	0.0280	1	05/13/2018 23:56	WG110914
Bromomethane	U		0.00414	0.0140	1	05/13/2018 23:56	WG110914
n-Butylbenzene	U		0.00429	0.0140	1	05/13/2018 23:56	WG110914
sec-Butylbenzene	U		0.00283	0.0140	1	05/13/2018 23:56	WG110914
tert-Butylbenzene	U		0.00173	0.00559	1	05/13/2018 23:56	WG110914
Carbon disulfide	U		0.00454	0.0140	1	05/13/2018 23:56	WG110914
Carbon tetrachloride	U		0.00121	0.00559	1	05/13/2018 23:56	WG110914
Chlorobenzene	U		0.000641	0.00280	1	05/13/2018 23:56	WG110914
Chlorodibromomethane	U		0.000503	0.00280	1	05/13/2018 23:56	WG110914
Chloroethane	U		0.00121	0.00559	1	05/13/2018 23:56	WG110914
Chloroform	U		0.000464	0.00280	1	05/13/2018 23:56	WG110914
Chloromethane	U	UJ JO	0.00155	0.0140	1	05/13/2018 23:56	WG110914
2-Chlorotoluene	U		0.00103	0.00280	1	05/13/2018 23:56	WG110914
4-Chlorotoluene	U		0.00126	0.00559	1	05/13/2018 23:56	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0280	1	05/13/2018 23:56	WG110914
1,2-Dibromoethane	U		0.000587	0.00280	1	05/13/2018 23:56	WG110914
Dibromomethane	U		0.00112	0.00559	1	05/13/2018 23:56	WG110914
1,2-Dichlorobenzene	U		0.00162	0.00559	1	05/13/2018 23:56	WG110914
1,3-Dichlorobenzene	U		0.00190	0.00559	1	05/13/2018 23:56	WG110914
1,4-Dichlorobenzene	U		0.00220	0.00559	1	05/13/2018 23:56	WG110914
Dichlorodifluoromethane	U	J3	0.000915	0.00280	1	05/13/2018 23:56	WG110914
1,1-Dichloroethane	U		0.000643	0.00280	1	05/13/2018 23:56	WG110914
1,2-Dichloroethane	U		0.000531	0.00280	1	05/13/2018 23:56	WG110914
1,1-Dichloroethene	0.00214	J J	0.000559	0.00280	1	05/13/2018 23:56	WG110914
cis-1,2-Dichloroethene	0.157		0.000772	0.00280	1	05/13/2018 23:56	WG110914
trans-1,2-Dichloroethene	0.00745		0.00160	0.00559	1	05/13/2018 23:56	WG110914
1,2-Dichloropropane	U		0.00142	0.00559	1	05/13/2018 23:56	WG110914
1,1-Dichloropropene	U		0.000783	0.00280	1	05/13/2018 23:56	WG110914
1,3-Dichloropropane	U		0.00196	0.00559	1	05/13/2018 23:56	WG110914
cis-1,3-Dichloropropene	U		0.000758	0.00280	1	05/13/2018 23:56	WG110914
trans-1,3-Dichloropropene	U		0.00171	0.00559	1	05/13/2018 23:56	WG110914
trans-1,4-Dichloro-2-butene	U		0.00157	0.00559	1	05/13/2018 23:56	WG110914
2,2-Dichloropropane	U		0.000887	0.00280	1	05/13/2018 23:56	WG110914
Di-isopropyl ether	U		0.000391	0.00112	1	05/13/2018 23:56	WG110914
Ethylbenzene	U		0.000593	0.00280	1	05/13/2018 23:56	WG110914
Hexachloro-1,3-butadiene	U		0.0142	0.0280	1	05/13/2018 23:56	WG110914
2-Hexanone	U		0.0112	0.0280	1	05/13/2018 23:56	WG110914
n-Hexane	0.00160	J JJ4	0.00119	0.00559	1	05/13/2018 23:56	WG110914
Iodomethane	U		0.00676	0.0140	1	05/13/2018 23:56	WG110914
Isopropylbenzene	U		0.000965	0.00280	1	05/13/2018 23:56	WG110914
p-Isopropyltoluene	U		0.00261	0.00559	1	05/13/2018 23:56	WG110914
2-Butanone (MEK)	U		0.0140	0.0280	1	05/13/2018 23:56	WG110914
Methylene Chloride	U		0.00742	0.0280	1	05/13/2018 23:56	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0280	1	05/13/2018 23:56	WG110914

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

JC 6/14/18



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	0.000422	J JJ0 J4	0.000330	0.00112	1	05/13/2018 23:56	WG110914
Naphthalene	U		0.00349	0.0140	1	05/13/2018 23:56	WG110914
n-Propylbenzene	U	UJ J4	0.00132	0.00559	1	05/13/2018 23:56	WG110914
Styrene	U		0.00305	0.0140	1	05/13/2018 23:56	WG110914
1,1,1,2-Tetrachloroethane	U		0.000559	0.00280	1	05/13/2018 23:56	WG110914
1,1,2,2-Tetrachloroethane	U		0.000436	0.00280	1	05/13/2018 23:56	WG110914
1,1,2-Trichlorotrifluoroethane	U		0.000755	0.00280	1	05/13/2018 23:56	WG110914
Tetrachloroethene	12.7		0.0157	0.0559	20	05/15/2018 13:48	WG110914
Toluene	0.00214	UJ J	0.00140	0.00559	1	05/13/2018 23:56	WG110914
1,2,3-Trichlorobenzene	U		0.000699	0.00280	1	05/13/2018 23:56	WG110914
1,2,4-Trichlorobenzene	U		0.00539	0.0140	1	05/13/2018 23:56	WG110914
1,1,1-Trichloroethane	U		0.000307	0.00280	1	05/13/2018 23:56	WG110914
1,1,2-Trichloroethane	U		0.000987	0.00280	1	05/13/2018 23:56	WG110914
Trichloroethene	0.448		0.000447	0.00112	1	05/13/2018 23:56	WG110914
Trichlorofluoromethane	U		0.000559	0.00280	1	05/13/2018 23:56	WG110914
1,2,3-Trichloropropane	U		0.00570	0.0140	1	05/13/2018 23:56	WG110914
1,2,4-Trimethylbenzene	U		0.00130	0.00559	1	05/13/2018 23:56	WG110914
1,2,3-Trimethylbenzene	U		0.00129	0.00559	1	05/13/2018 23:56	WG110914
1,3,5-Trimethylbenzene	U		0.00121	0.00559	1	05/13/2018 23:56	WG110914
Vinyl acetate	U		0.00394	0.0140	1	05/13/2018 23:56	WG110914
Vinyl chloride	U		0.000764	0.00280	1	05/13/2018 23:56	WG110914
Xylenes, Total	U		0.00534	0.00727	1	05/13/2018 23:56	WG110914
(S) Toluene-d8	112			80.0-120		05/15/2018 13:48	WG110914
(S) Toluene-d8	119			80.0-120		05/13/2018 23:56	WG110914
(S) Dibromofluoromethane	81.0			74.0-131		05/15/2018 13:48	WG110914
(S) Dibromofluoromethane	80.4			74.0-131		05/13/2018 23:56	WG110914
(S) 4-Bromofluorobenzene	96.6			64.0-132		05/15/2018 13:48	WG110914
(S) 4-Bromofluorobenzene	98.9			64.0-132		05/13/2018 23:56	WG110914

- 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	Batch
	%			date / time	
Total Solids	85.0		1	05/16/2018 11:50	WG111636

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		0.0161	0.0294	1	05/14/2018 00:16	WG110914
Acrylonitrile	U		0.00224	0.0147	1	05/14/2018 00:16	WG110914
Benzene	U		0.000471	0.00118	1	05/14/2018 00:16	WG110914
Bromobenzene	U		0.00124	0.0147	1	05/14/2018 00:16	WG110914
Bromodichloromethane	U		0.000927	0.00294	1	05/14/2018 00:16	WG110914
Bromochloromethane	U		0.00133	0.00588	1	05/14/2018 00:16	WG110914
Bromoform	U	UJ JO	0.00704	0.0294	1	05/14/2018 00:16	WG110914
Bromomethane	U		0.00435	0.0147	1	05/14/2018 00:16	WG110914
n-Butylbenzene	U		0.00452	0.0147	1	05/14/2018 00:16	WG110914
sec-Butylbenzene	U		0.00298	0.0147	1	05/14/2018 00:16	WG110914
tert-Butylbenzene	U		0.00182	0.00588	1	05/14/2018 00:16	WG110914
Carbon disulfide	U		0.00478	0.0147	1	05/14/2018 00:16	WG110914
Carbon tetrachloride	U		0.00127	0.00588	1	05/14/2018 00:16	WG110914
Chlorobenzene	U		0.000674	0.00294	1	05/14/2018 00:16	WG110914
Chlorodibromomethane	U		0.000530	0.00294	1	05/14/2018 00:16	WG110914
Chloroethane	U		0.00127	0.00588	1	05/14/2018 00:16	WG110914
Chloroform	U		0.000488	0.00294	1	05/14/2018 00:16	WG110914
Chloromethane	U	UJ JO	0.00164	0.0147	1	05/14/2018 00:16	WG110914
2-Chlorotoluene	U		0.00108	0.00294	1	05/14/2018 00:16	WG110914
4-Chlorotoluene	U		0.00133	0.00588	1	05/14/2018 00:16	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00600	0.0294	1	05/14/2018 00:16	WG110914
1,2-Dibromoethane	U		0.000618	0.00294	1	05/14/2018 00:16	WG110914
Dibromomethane	U		0.00118	0.00588	1	05/14/2018 00:16	WG110914
1,2-Dichlorobenzene	U		0.00171	0.00588	1	05/14/2018 00:16	WG110914
1,3-Dichlorobenzene	U		0.00200	0.00588	1	05/14/2018 00:16	WG110914
1,4-Dichlorobenzene	U		0.00232	0.00588	1	05/14/2018 00:16	WG110914
Dichlorodifluoromethane	U	J3	0.000963	0.00294	1	05/14/2018 00:16	WG110914
1,1-Dichloroethane	U		0.000677	0.00294	1	05/14/2018 00:16	WG110914
1,2-Dichloroethane	U		0.000559	0.00294	1	05/14/2018 00:16	WG110914
1,1-Dichloroethene	0.00878		0.000588	0.00294	1	05/14/2018 00:16	WG110914
cis-1,2-Dichloroethene	3.36		0.00812	0.0294	10	05/15/2018 14:08	WG110914
trans-1,2-Dichloroethene	0.00860		0.00168	0.00588	1	05/14/2018 00:16	WG110914
1,2-Dichloropropane	U		0.00149	0.00588	1	05/14/2018 00:16	WG110914
1,1-Dichloropropene	U		0.000824	0.00294	1	05/14/2018 00:16	WG110914
1,3-Dichloropropane	U		0.00206	0.00588	1	05/14/2018 00:16	WG110914
cis-1,3-Dichloropropene	U		0.000798	0.00294	1	05/14/2018 00:16	WG110914
trans-1,3-Dichloropropene	U		0.00180	0.00588	1	05/14/2018 00:16	WG110914
trans-1,4-Dichloro-2-butene	U		0.00165	0.00588	1	05/14/2018 00:16	WG110914
2,2-Dichloropropane	U		0.000933	0.00294	1	05/14/2018 00:16	WG110914
Di-isopropyl ether	U		0.000412	0.00118	1	05/14/2018 00:16	WG110914
Ethylbenzene	U		0.000624	0.00294	1	05/14/2018 00:16	WG110914
Hexachloro-1,3-butadiene	U		0.0149	0.0294	1	05/14/2018 00:16	WG110914
2-Hexanone	U		0.0118	0.0294	1	05/14/2018 00:16	WG110914
n-Hexane	0.00348	J JJ4	0.00125	0.00588	1	05/14/2018 00:16	WG110914
Iodomethane	U		0.00712	0.0147	1	05/14/2018 00:16	WG110914
Isopropylbenzene	U		0.00102	0.00294	1	05/14/2018 00:16	WG110914
p-Isopropyltoluene	U		0.00274	0.00588	1	05/14/2018 00:16	WG110914
2-Butanone (MEK)	U		0.0147	0.0294	1	05/14/2018 00:16	WG110914
Methylene Chloride	U		0.00781	0.0294	1	05/14/2018 00:16	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0294	1	05/14/2018 00:16	WG110914

- 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	0.000538	J JJ0 J4	0.000347	0.00118	1	05/14/2018 00:16	WG1110914
Naphthalene	U		0.00367	0.0147	1	05/14/2018 00:16	WG1110914
n-Propylbenzene	U	UJ J4	0.00139	0.00588	1	05/14/2018 00:16	WG1110914
Styrene	U		0.00321	0.0147	1	05/14/2018 00:16	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000588	0.00294	1	05/14/2018 00:16	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000459	0.00294	1	05/14/2018 00:16	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000794	0.00294	1	05/14/2018 00:16	WG1110914
Tetrachloroethene	6.98		0.00824	0.0294	10	05/15/2018 14:08	WG1110914
Toluene	0.00172	J J	0.00147	0.00588	1	05/14/2018 00:16	WG1110914
1,2,3-Trichlorobenzene	U		0.000736	0.00294	1	05/14/2018 00:16	WG1110914
1,2,4-Trichlorobenzene	U		0.00567	0.0147	1	05/14/2018 00:16	WG1110914
1,1,1-Trichloroethane	U		0.000324	0.00294	1	05/14/2018 00:16	WG1110914
1,1,2-Trichloroethane	U		0.00104	0.00294	1	05/14/2018 00:16	WG1110914
Trichloroethene	0.162		0.000471	0.00118	1	05/14/2018 00:16	WG1110914
Trichlorofluoromethane	U		0.000588	0.00294	1	05/14/2018 00:16	WG1110914
1,2,3-Trichloropropane	U		0.00600	0.0147	1	05/14/2018 00:16	WG1110914
1,2,4-Trimethylbenzene	U		0.00137	0.00588	1	05/14/2018 00:16	WG1110914
1,2,3-Trimethylbenzene	U		0.00135	0.00588	1	05/14/2018 00:16	WG1110914
1,3,5-Trimethylbenzene	U		0.00127	0.00588	1	05/14/2018 00:16	WG1110914
Vinyl acetate	U		0.00414	0.0147	1	05/14/2018 00:16	WG1110914
Vinyl chloride	0.0308		0.000804	0.00294	1	05/14/2018 00:16	WG1110914
Xylenes, Total	U		0.00563	0.00765	1	05/14/2018 00:16	WG1110914
(S) Toluene-d8	113			80.0-120		05/15/2018 14:08	WG1110914
(S) Toluene-d8	118			80.0-120		05/14/2018 00:16	WG1110914
(S) Dibromofluoromethane	87.3			74.0-131		05/15/2018 14:08	WG1110914
(S) Dibromofluoromethane	80.5			74.0-131		05/14/2018 00:16	WG1110914
(S) 4-Bromofluorobenzene	97.1			64.0-132		05/15/2018 14:08	WG1110914
(S) 4-Bromofluorobenzene	98.3			64.0-132		05/14/2018 00:16	WG1110914

- 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	Batch
	%			date / time	
Total Solids	86.7		1	05/16/2018 11:50	WG111636

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		0.0158	0.0288	1	05/14/2018 00:35	WG110914
Acrylonitrile	U		0.00219	0.0144	1	05/14/2018 00:35	WG110914
Benzene	U		0.000461	0.00115	1	05/14/2018 00:35	WG110914
Bromobenzene	U		0.00121	0.0144	1	05/14/2018 00:35	WG110914
Bromodichloromethane	U		0.000908	0.00288	1	05/14/2018 00:35	WG110914
Bromochloromethane	U		0.00130	0.00576	1	05/14/2018 00:35	WG110914
Bromoform	U	UJ JO	0.00689	0.0288	1	05/14/2018 00:35	WG110914
Bromomethane	U		0.00427	0.0144	1	05/14/2018 00:35	WG110914
n-Butylbenzene	U		0.00443	0.0144	1	05/14/2018 00:35	WG110914
sec-Butylbenzene	U		0.00292	0.0144	1	05/14/2018 00:35	WG110914
tert-Butylbenzene	U		0.00179	0.00576	1	05/14/2018 00:35	WG110914
Carbon disulfide	U		0.00468	0.0144	1	05/14/2018 00:35	WG110914
Carbon tetrachloride	U		0.00125	0.00576	1	05/14/2018 00:35	WG110914
Chlorobenzene	U		0.000661	0.00288	1	05/14/2018 00:35	WG110914
Chlorodibromomethane	U		0.000519	0.00288	1	05/14/2018 00:35	WG110914
Chloroethane	U		0.00125	0.00576	1	05/14/2018 00:35	WG110914
Chloroform	U		0.000478	0.00288	1	05/14/2018 00:35	WG110914
Chloromethane	U	UJ JO	0.00160	0.0144	1	05/14/2018 00:35	WG110914
2-Chlorotoluene	U		0.00106	0.00288	1	05/14/2018 00:35	WG110914
4-Chlorotoluene	U		0.00130	0.00576	1	05/14/2018 00:35	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00588	0.0288	1	05/14/2018 00:35	WG110914
1,2-Dibromoethane	U		0.000605	0.00288	1	05/14/2018 00:35	WG110914
Dibromomethane	U		0.00115	0.00576	1	05/14/2018 00:35	WG110914
1,2-Dichlorobenzene	U		0.00167	0.00576	1	05/14/2018 00:35	WG110914
1,3-Dichlorobenzene	U		0.00196	0.00576	1	05/14/2018 00:35	WG110914
1,4-Dichlorobenzene	U		0.00227	0.00576	1	05/14/2018 00:35	WG110914
Dichlorodifluoromethane	U	J3	0.000943	0.00288	1	05/14/2018 00:35	WG110914
1,1-Dichloroethane	U		0.000663	0.00288	1	05/14/2018 00:35	WG110914
1,2-Dichloroethane	U		0.000548	0.00288	1	05/14/2018 00:35	WG110914
1,1-Dichloroethene	U		0.000576	0.00288	1	05/14/2018 00:35	WG110914
cis-1,2-Dichloroethene	0.00505		0.000795	0.00288	1	05/15/2018 12:51	WG110914
trans-1,2-Dichloroethene	U		0.00165	0.00576	1	05/14/2018 00:35	WG110914
1,2-Dichloropropane	U		0.00146	0.00576	1	05/14/2018 00:35	WG110914
1,1-Dichloropropene	U		0.000807	0.00288	1	05/14/2018 00:35	WG110914
1,3-Dichloropropane	U		0.00202	0.00576	1	05/14/2018 00:35	WG110914
cis-1,3-Dichloropropene	U		0.000782	0.00288	1	05/14/2018 00:35	WG110914
trans-1,3-Dichloropropene	U		0.00176	0.00576	1	05/14/2018 00:35	WG110914
trans-1,4-Dichloro-2-butene	U		0.00161	0.00576	1	05/14/2018 00:35	WG110914
2,2-Dichloropropane	U		0.000914	0.00288	1	05/14/2018 00:35	WG110914
Di-isopropyl ether	U		0.000403	0.00115	1	05/14/2018 00:35	WG110914
Ethylbenzene	U		0.000611	0.00288	1	05/14/2018 00:35	WG110914
Hexachloro-1,3-butadiene	U		0.0146	0.0288	1	05/14/2018 00:35	WG110914
2-Hexanone	U		0.0115	0.0288	1	05/14/2018 00:35	WG110914
n-Hexane	U	J4	0.00122	0.00576	1	05/14/2018 00:35	WG110914
Iodomethane	U		0.00697	0.0144	1	05/14/2018 00:35	WG110914
Isopropylbenzene	U		0.000995	0.00288	1	05/14/2018 00:35	WG110914
p-Isopropyltoluene	U		0.00269	0.00576	1	05/14/2018 00:35	WG110914
2-Butanone (MEK)	U		0.0144	0.0288	1	05/14/2018 00:35	WG110914
Methylene Chloride	U		0.00765	0.0288	1	05/14/2018 00:35	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0288	1	05/14/2018 00:35	WG110914

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

JC 6/14/18



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	UJ	0.00340	0.00115	1	05/14/2018 00:35	WG1110914
Naphthalene	U		0.00360	0.0144	1	05/14/2018 00:35	WG1110914
n-Propylbenzene	U	UJ	0.00136	0.00576	1	05/14/2018 00:35	WG1110914
Styrene	U		0.00315	0.0144	1	05/14/2018 00:35	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000576	0.00288	1	05/14/2018 00:35	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000450	0.00288	1	05/14/2018 00:35	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000778	0.00288	1	05/14/2018 00:35	WG1110914
Tetrachloroethene	0.00548		0.000807	0.00288	1	05/15/2018 12:51	WG1110914
Toluene	U		0.00144	0.00576	1	05/14/2018 00:35	WG1110914
1,2,3-Trichlorobenzene	U		0.000720	0.00288	1	05/14/2018 00:35	WG1110914
1,2,4-Trichlorobenzene	U		0.00556	0.0144	1	05/14/2018 00:35	WG1110914
1,1,1-Trichloroethane	U		0.000317	0.00288	1	05/14/2018 00:35	WG1110914
1,1,2-Trichloroethane	U		0.00102	0.00288	1	05/14/2018 00:35	WG1110914
Trichloroethene	U		0.000461	0.00115	1	05/14/2018 00:35	WG1110914
Trichlorofluoromethane	U		0.000576	0.00288	1	05/14/2018 00:35	WG1110914
1,2,3-Trichloropropane	U		0.00588	0.0144	1	05/14/2018 00:35	WG1110914
1,2,4-Trimethylbenzene	U		0.00134	0.00576	1	05/14/2018 00:35	WG1110914
1,2,3-Trimethylbenzene	U		0.00133	0.00576	1	05/14/2018 00:35	WG1110914
1,3,5-Trimethylbenzene	U		0.00125	0.00576	1	05/14/2018 00:35	WG1110914
Vinyl acetate	U		0.00406	0.0144	1	05/14/2018 00:35	WG1110914
Vinyl chloride	U		0.000787	0.00288	1	05/14/2018 00:35	WG1110914
Xylenes, Total	U		0.00551	0.00749	1	05/14/2018 00:35	WG1110914
(S) Toluene-d8	115			80.0-120		05/14/2018 00:35	WG1110914
(S) Toluene-d8	103			80.0-120		05/15/2018 12:51	WG1110914
(S) Dibromofluoromethane	97.9			74.0-131		05/14/2018 00:35	WG1110914
(S) Dibromofluoromethane	99.3			74.0-131		05/15/2018 12:51	WG1110914
(S) 4-Bromofluorobenzene	104			64.0-132		05/14/2018 00:35	WG1110914
(S) 4-Bromofluorobenzene	98.4			64.0-132		05/15/2018 12:51	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	05/16/2018 11:50	WG111636

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		0.0155	0.0283	1	05/14/2018 00:55	WG110914
Acrylonitrile	U		0.00215	0.0142	1	05/14/2018 00:55	WG110914
Benzene	U		0.000453	0.00113	1	05/14/2018 00:55	WG110914
Bromobenzene	U		0.00119	0.0142	1	05/14/2018 00:55	WG110914
Bromodichloromethane	U		0.000892	0.00283	1	05/14/2018 00:55	WG110914
Bromochloromethane	U		0.00128	0.00566	1	05/14/2018 00:55	WG110914
Bromoform	U	UJ JO	0.00677	0.0283	1	05/14/2018 00:55	WG110914
Bromomethane	U		0.00419	0.0142	1	05/14/2018 00:55	WG110914
n-Butylbenzene	U		0.00435	0.0142	1	05/14/2018 00:55	WG110914
sec-Butylbenzene	U		0.00287	0.0142	1	05/14/2018 00:55	WG110914
tert-Butylbenzene	U		0.00176	0.00566	1	05/14/2018 00:55	WG110914
Carbon disulfide	U		0.00460	0.0142	1	05/14/2018 00:55	WG110914
Carbon tetrachloride	U		0.00122	0.00566	1	05/14/2018 00:55	WG110914
Chlorobenzene	U		0.000649	0.00283	1	05/14/2018 00:55	WG110914
Chlorodibromomethane	U		0.000510	0.00283	1	05/14/2018 00:55	WG110914
Chloroethane	U		0.00122	0.00566	1	05/14/2018 00:55	WG110914
Chloroform	U		0.000470	0.00283	1	05/14/2018 00:55	WG110914
Chloromethane	U	UJ JO	0.00157	0.0142	1	05/14/2018 00:55	WG110914
2-Chlorotoluene	U		0.00104	0.00283	1	05/14/2018 00:55	WG110914
4-Chlorotoluene	U		0.00128	0.00566	1	05/14/2018 00:55	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00578	0.0283	1	05/14/2018 00:55	WG110914
1,2-Dibromoethane	U		0.000595	0.00283	1	05/14/2018 00:55	WG110914
Dibromomethane	U		0.00113	0.00566	1	05/14/2018 00:55	WG110914
1,2-Dichlorobenzene	U		0.00164	0.00566	1	05/14/2018 00:55	WG110914
1,3-Dichlorobenzene	U		0.00193	0.00566	1	05/14/2018 00:55	WG110914
1,4-Dichlorobenzene	U		0.00223	0.00566	1	05/14/2018 00:55	WG110914
Dichlorodifluoromethane	U	J3	0.000926	0.00283	1	05/14/2018 00:55	WG110914
1,1-Dichloroethane	U		0.000651	0.00283	1	05/14/2018 00:55	WG110914
1,2-Dichloroethane	U		0.000538	0.00283	1	05/14/2018 00:55	WG110914
1,1-Dichloroethene	0.00121	J J	0.000566	0.00283	1	05/14/2018 00:55	WG110914
cis-1,2-Dichloroethene	0.255		0.000781	0.00283	1	05/14/2018 00:55	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00566	1	05/14/2018 00:55	WG110914
1,2-Dichloropropane	U		0.00144	0.00566	1	05/14/2018 00:55	WG110914
1,1-Dichloropropene	U		0.000793	0.00283	1	05/14/2018 00:55	WG110914
1,3-Dichloropropane	U		0.00198	0.00566	1	05/14/2018 00:55	WG110914
cis-1,3-Dichloropropene	U		0.000768	0.00283	1	05/14/2018 00:55	WG110914
trans-1,3-Dichloropropene	U		0.00173	0.00566	1	05/14/2018 00:55	WG110914
trans-1,4-Dichloro-2-butene	U		0.00159	0.00566	1	05/14/2018 00:55	WG110914
2,2-Dichloropropane	U		0.000898	0.00283	1	05/14/2018 00:55	WG110914
Di-isopropyl ether	U		0.000396	0.00113	1	05/14/2018 00:55	WG110914
Ethylbenzene	U		0.000600	0.00283	1	05/14/2018 00:55	WG110914
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	05/14/2018 00:55	WG110914
2-Hexanone	U		0.0113	0.0283	1	05/14/2018 00:55	WG110914
n-Hexane	0.00171	J JJ4	0.00120	0.00566	1	05/14/2018 00:55	WG110914
Iodomethane	U		0.00685	0.0142	1	05/14/2018 00:55	WG110914
Isopropylbenzene	U		0.000977	0.00283	1	05/14/2018 00:55	WG110914
p-Isopropyltoluene	U		0.00264	0.00566	1	05/14/2018 00:55	WG110914
2-Butanone (MEK)	U		0.0142	0.0283	1	05/14/2018 00:55	WG110914
Methylene Chloride	U		0.00752	0.0283	1	05/14/2018 00:55	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	05/14/2018 00:55	WG110914

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

JC 6/14/18



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	0.000376	J	0.000334	0.00113	1	05/14/2018 00:55	WG1110914
Naphthalene	U		0.00353	0.0142	1	05/14/2018 00:55	WG1110914
n-Propylbenzene	U	UJ	0.00134	0.00566	1	05/14/2018 00:55	WG1110914
Styrene	U		0.00309	0.0142	1	05/14/2018 00:55	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000566	0.00283	1	05/14/2018 00:55	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000442	0.00283	1	05/14/2018 00:55	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000764	0.00283	1	05/14/2018 00:55	WG1110914
Tetrachloroethene	4.07		0.00634	0.0226	8	05/15/2018 14:27	WG1110914
Toluene	U		0.00142	0.00566	1	05/14/2018 00:55	WG1110914
1,2,3-Trichlorobenzene	U		0.000708	0.00283	1	05/14/2018 00:55	WG1110914
1,2,4-Trichlorobenzene	U		0.00546	0.0142	1	05/14/2018 00:55	WG1110914
1,1,1-Trichloroethane	U		0.000311	0.00283	1	05/14/2018 00:55	WG1110914
1,1,2-Trichloroethane	U		0.00100	0.00283	1	05/14/2018 00:55	WG1110914
Trichloroethene	0.280		0.000453	0.00113	1	05/14/2018 00:55	WG1110914
Trichlorofluoromethane	U		0.000566	0.00283	1	05/14/2018 00:55	WG1110914
1,2,3-Trichloropropane	U		0.00578	0.0142	1	05/14/2018 00:55	WG1110914
1,2,4-Trimethylbenzene	U		0.00131	0.00566	1	05/14/2018 00:55	WG1110914
1,2,3-Trimethylbenzene	U		0.00130	0.00566	1	05/14/2018 00:55	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00566	1	05/14/2018 00:55	WG1110914
Vinyl acetate	U		0.00399	0.0142	1	05/14/2018 00:55	WG1110914
Vinyl chloride	0.00735		0.000773	0.00283	1	05/14/2018 00:55	WG1110914
Xylenes, Total	U		0.00541	0.00736	1	05/14/2018 00:55	WG1110914
(S) Toluene-d8	118			80.0-120		05/15/2018 14:27	WG1110914
(S) Toluene-d8	117			80.0-120		05/14/2018 00:55	WG1110914
(S) Dibromofluoromethane	84.1			74.0-131		05/14/2018 00:55	WG1110914
(S) Dibromofluoromethane	84.8			74.0-131		05/15/2018 14:27	WG1110914
(S) 4-Bromofluorobenzene	98.7			64.0-132		05/15/2018 14:27	WG1110914
(S) 4-Bromofluorobenzene	98.4			64.0-132		05/14/2018 00:55	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	05/16/2018 11:50	WG111636

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		0.0150	0.0273	1	05/14/2018 01:14	WG110914	
Acrylonitrile	U		0.00208	0.0137	1	05/14/2018 01:14	WG110914	
Benzene	U		0.000437	0.00109	1	05/14/2018 01:14	WG110914	
Bromobenzene	U		0.00115	0.0137	1	05/14/2018 01:14	WG110914	
Bromodichloromethane	U		0.000862	0.00273	1	05/14/2018 01:14	WG110914	
Bromochloromethane	U		0.00124	0.00547	1	05/14/2018 01:14	WG110914	
Bromoform	U	UJ	JO	0.00654	0.0273	1	05/14/2018 01:14	WG110914
Bromomethane	U		0.00405	0.0137	1	05/14/2018 01:14	WG110914	
n-Butylbenzene	U		0.00420	0.0137	1	05/14/2018 01:14	WG110914	
sec-Butylbenzene	U		0.00277	0.0137	1	05/14/2018 01:14	WG110914	
tert-Butylbenzene	U		0.00169	0.00547	1	05/14/2018 01:14	WG110914	
Carbon disulfide	U		0.00444	0.0137	1	05/14/2018 01:14	WG110914	
Carbon tetrachloride	U		0.00118	0.00547	1	05/14/2018 01:14	WG110914	
Chlorobenzene	U		0.000627	0.00273	1	05/14/2018 01:14	WG110914	
Chlorodibromomethane	U		0.000492	0.00273	1	05/14/2018 01:14	WG110914	
Chloroethane	U		0.00118	0.00547	1	05/14/2018 01:14	WG110914	
Chloroform	U		0.000454	0.00273	1	05/14/2018 01:14	WG110914	
Chloromethane	U	UJ	JO	0.00152	0.0137	1	05/14/2018 01:14	WG110914
2-Chlorotoluene	U		0.00101	0.00273	1	05/14/2018 01:14	WG110914	
4-Chlorotoluene	U		0.00124	0.00547	1	05/14/2018 01:14	WG110914	
1,2-Dibromo-3-Chloropropane	U		0.00558	0.0273	1	05/14/2018 01:14	WG110914	
1,2-Dibromoethane	U		0.000574	0.00273	1	05/14/2018 01:14	WG110914	
Dibromomethane	U		0.00109	0.00547	1	05/14/2018 01:14	WG110914	
1,2-Dichlorobenzene	U		0.00159	0.00547	1	05/14/2018 01:14	WG110914	
1,3-Dichlorobenzene	U		0.00186	0.00547	1	05/14/2018 01:14	WG110914	
1,4-Dichlorobenzene	U		0.00215	0.00547	1	05/14/2018 01:14	WG110914	
Dichlorodifluoromethane	U		J3	0.000895	0.00273	1	05/14/2018 01:14	WG110914
1,1-Dichloroethane	U		0.000629	0.00273	1	05/14/2018 01:14	WG110914	
1,2-Dichloroethane	U		0.000519	0.00273	1	05/14/2018 01:14	WG110914	
1,1-Dichloroethene	0.00192	J	J	0.000547	0.00273	1	05/14/2018 01:14	WG110914
cis-1,2-Dichloroethene	0.330			0.000755	0.00273	1	05/14/2018 01:14	WG110914
trans-1,2-Dichloroethene	U			0.00156	0.00547	1	05/14/2018 01:14	WG110914
1,2-Dichloropropane	U			0.00139	0.00547	1	05/14/2018 01:14	WG110914
1,1-Dichloropropene	U			0.000765	0.00273	1	05/14/2018 01:14	WG110914
1,3-Dichloropropane	U			0.00191	0.00547	1	05/14/2018 01:14	WG110914
cis-1,3-Dichloropropene	U			0.000741	0.00273	1	05/14/2018 01:14	WG110914
trans-1,3-Dichloropropene	U			0.00167	0.00547	1	05/14/2018 01:14	WG110914
trans-1,4-Dichloro-2-butene	U			0.00153	0.00547	1	05/14/2018 01:14	WG110914
2,2-Dichloropropane	U			0.000867	0.00273	1	05/14/2018 01:14	WG110914
Di-isopropyl ether	U			0.000383	0.00109	1	05/14/2018 01:14	WG110914
Ethylbenzene	U			0.000580	0.00273	1	05/14/2018 01:14	WG110914
Hexachloro-1,3-butadiene	U			0.0139	0.0273	1	05/14/2018 01:14	WG110914
2-Hexanone	U			0.0109	0.0273	1	05/14/2018 01:14	WG110914
n-Hexane	0.00209	J	J J4	0.00116	0.00547	1	05/14/2018 01:14	WG110914
Iodomethane	U			0.00662	0.0137	1	05/14/2018 01:14	WG110914
Isopropylbenzene	U			0.000944	0.00273	1	05/14/2018 01:14	WG110914
p-Isopropyltoluene	U			0.00255	0.00547	1	05/14/2018 01:14	WG110914
2-Butanone (MEK)	U			0.0137	0.0273	1	05/14/2018 01:14	WG110914
Methylene Chloride	U			0.00726	0.0273	1	05/14/2018 01:14	WG110914
4-Methyl-2-pentanone (MIBK)	U			0.0109	0.0273	1	05/14/2018 01:14	WG110914

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

JC 6/14/18



Collected date/time: 05/11/18 10:40

L993557

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	0.000437	J	0.000323	0.00109	1	05/14/2018 01:14	WG1110914
Naphthalene	U		0.00341	0.0137	1	05/14/2018 01:14	WG1110914
n-Propylbenzene	U	UJ	0.00129	0.00547	1	05/14/2018 01:14	WG1110914
Styrene	U		0.00299	0.0137	1	05/14/2018 01:14	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000547	0.00273	1	05/14/2018 01:14	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000426	0.00273	1	05/14/2018 01:14	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000738	0.00273	1	05/14/2018 01:14	WG1110914
Tetrachloroethene	0.00312		0.000765	0.00273	1	05/15/2018 13:10	WG1110914
Toluene	0.00143	J	0.00137	0.00547	1	05/14/2018 01:14	WG1110914
1,2,3-Trichlorobenzene	U		0.000683	0.00273	1	05/14/2018 01:14	WG1110914
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1	05/14/2018 01:14	WG1110914
1,1,1-Trichloroethane	U		0.000301	0.00273	1	05/14/2018 01:14	WG1110914
1,1,2-Trichloroethane	U		0.000966	0.00273	1	05/14/2018 01:14	WG1110914
Trichloroethene	0.00780		0.000437	0.00109	1	05/14/2018 01:14	WG1110914
Trichlorofluoromethane	U		0.000547	0.00273	1	05/14/2018 01:14	WG1110914
1,2,3-Trichloropropane	U		0.00558	0.0137	1	05/14/2018 01:14	WG1110914
1,2,4-Trimethylbenzene	U		0.00127	0.00547	1	05/14/2018 01:14	WG1110914
1,2,3-Trimethylbenzene	U		0.00126	0.00547	1	05/14/2018 01:14	WG1110914
1,3,5-Trimethylbenzene	U		0.00118	0.00547	1	05/14/2018 01:14	WG1110914
Vinyl acetate	U		0.00385	0.0137	1	05/14/2018 01:14	WG1110914
Vinyl chloride	0.00339		0.000747	0.00273	1	05/14/2018 01:14	WG1110914
Xylenes, Total	U		0.00523	0.00711	1	05/14/2018 01:14	WG1110914
(S) Toluene-d8	111			80.0-120		05/15/2018 13:10	WG1110914
(S) Toluene-d8	118			80.0-120		05/14/2018 01:14	WG1110914
(S) Dibromofluoromethane	82.3			74.0-131		05/14/2018 01:14	WG1110914
(S) Dibromofluoromethane	91.5			74.0-131		05/15/2018 13:10	WG1110914
(S) 4-Bromofluorobenzene	95.3			64.0-132		05/15/2018 13:10	WG1110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/14/2018 01:14	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.4		1	05/16/2018 11:50	WG111636

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	0.0277	J	0.0165	0.0301	1.03	05/14/2018 01:33	WG110914
Acrylonitrile	U		0.00229	0.0151	1.03	05/14/2018 01:33	WG110914
Benzene	U		0.000482	0.00121	1.03	05/14/2018 01:33	WG110914
Bromobenzene	U		0.00126	0.0151	1.03	05/14/2018 01:33	WG110914
Bromodichloromethane	U		0.000951	0.00301	1.03	05/14/2018 01:33	WG110914
Bromochloromethane	U		0.00136	0.00603	1.03	05/14/2018 01:33	WG110914
Bromoform	U	UJ JO	0.00721	0.0301	1.03	05/14/2018 01:33	WG110914
Bromomethane	U		0.00446	0.0151	1.03	05/14/2018 01:33	WG110914
n-Butylbenzene	U		0.00464	0.0151	1.03	05/14/2018 01:33	WG110914
sec-Butylbenzene	U		0.00304	0.0151	1.03	05/14/2018 01:33	WG110914
tert-Butylbenzene	U		0.00187	0.00603	1.03	05/14/2018 01:33	WG110914
Carbon disulfide	U		0.00489	0.0151	1.03	05/14/2018 01:33	WG110914
Carbon tetrachloride	U		0.00130	0.00603	1.03	05/14/2018 01:33	WG110914
Chlorobenzene	U		0.000691	0.00301	1.03	05/14/2018 01:33	WG110914
Chlorodibromomethane	U		0.000543	0.00301	1.03	05/14/2018 01:33	WG110914
Chloroethane	U		0.00130	0.00603	1.03	05/14/2018 01:33	WG110914
Chloroform	U		0.000500	0.00301	1.03	05/14/2018 01:33	WG110914
Chloromethane	U	UJ JO	0.00167	0.0151	1.03	05/14/2018 01:33	WG110914
2-Chlorotoluene	U		0.00111	0.00301	1.03	05/14/2018 01:33	WG110914
4-Chlorotoluene	U		0.00136	0.00603	1.03	05/14/2018 01:33	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00615	0.0301	1.03	05/14/2018 01:33	WG110914
1,2-Dibromoethane	U		0.000633	0.00301	1.03	05/14/2018 01:33	WG110914
Dibromomethane	U		0.00121	0.00603	1.03	05/14/2018 01:33	WG110914
1,2-Dichlorobenzene	U		0.00174	0.00603	1.03	05/14/2018 01:33	WG110914
1,3-Dichlorobenzene	U		0.00205	0.00603	1.03	05/14/2018 01:33	WG110914
1,4-Dichlorobenzene	U		0.00238	0.00603	1.03	05/14/2018 01:33	WG110914
Dichlorodifluoromethane	U	J3	0.000986	0.00301	1.03	05/14/2018 01:33	WG110914
1,1-Dichloroethane	U		0.000693	0.00301	1.03	05/14/2018 01:33	WG110914
1,2-Dichloroethane	U		0.000573	0.00301	1.03	05/14/2018 01:33	WG110914
1,1-Dichloroethene	U		0.000603	0.00301	1.03	05/14/2018 01:33	WG110914
cis-1,2-Dichloroethene	0.00410		0.000832	0.00301	1.03	05/14/2018 01:33	WG110914
trans-1,2-Dichloroethene	U		0.00172	0.00603	1.03	05/14/2018 01:33	WG110914
1,2-Dichloropropane	U		0.00153	0.00603	1.03	05/14/2018 01:33	WG110914
1,1-Dichloropropene	U		0.000844	0.00301	1.03	05/14/2018 01:33	WG110914
1,3-Dichloropropane	U		0.00211	0.00603	1.03	05/14/2018 01:33	WG110914
cis-1,3-Dichloropropene	U		0.000817	0.00301	1.03	05/14/2018 01:33	WG110914
trans-1,3-Dichloropropene	U		0.00185	0.00603	1.03	05/14/2018 01:33	WG110914
trans-1,4-Dichloro-2-butene	U		0.00169	0.00603	1.03	05/14/2018 01:33	WG110914
2,2-Dichloropropane	U		0.000957	0.00301	1.03	05/14/2018 01:33	WG110914
Di-isopropyl ether	U		0.000422	0.00121	1.03	05/14/2018 01:33	WG110914
Ethylbenzene	U		0.000639	0.00301	1.03	05/14/2018 01:33	WG110914
Hexachloro-1,3-butadiene	U		0.0153	0.0301	1.03	05/14/2018 01:33	WG110914
2-Hexanone	U		0.0121	0.0301	1.03	05/14/2018 01:33	WG110914
n-Hexane	0.00858	J J4	0.00128	0.00603	1.03	05/14/2018 01:33	WG110914
Iodomethane	U		0.00729	0.0151	1.03	05/14/2018 01:33	WG110914
Isopropylbenzene	U		0.00104	0.00301	1.03	05/14/2018 01:33	WG110914
p-Isopropyltoluene	U		0.00281	0.00603	1.03	05/14/2018 01:33	WG110914
2-Butanone (MEK)	U		0.0151	0.0301	1.03	05/14/2018 01:33	WG110914
Methylene Chloride	U		0.00801	0.0301	1.03	05/14/2018 01:33	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0301	1.03	05/14/2018 01:33	WG110914

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

JC 6/14/18



Collected date/time: 05/11/18 10:50

L993557

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	UJ	0.000356	0.00121	1.03	05/14/2018 01:33	WG110914
Naphthalene	U		0.00376	0.0151	1.03	05/14/2018 01:33	WG110914
n-Propylbenzene	U	UJ	0.00143	0.00603	1.03	05/14/2018 01:33	WG110914
Styrene	U		0.00329	0.0151	1.03	05/14/2018 01:33	WG110914
1,1,1,2-Tetrachloroethane	U		0.000603	0.00301	1.03	05/14/2018 01:33	WG110914
1,1,2,2-Tetrachloroethane	U		0.000471	0.00301	1.03	05/14/2018 01:33	WG110914
1,1,2-Trichlorotrifluoroethane	U		0.000814	0.00301	1.03	05/14/2018 01:33	WG110914
Tetrachloroethene	U		0.000836	0.00299	1.02	05/15/2018 13:29	WG110914
Toluene	0.00477	J	0.00151	0.00603	1.03	05/14/2018 01:33	WG110914
1,2,3-Trichlorobenzene	U		0.000754	0.00301	1.03	05/14/2018 01:33	WG110914
1,2,4-Trichlorobenzene	U		0.00581	0.0151	1.03	05/14/2018 01:33	WG110914
1,1,1-Trichloroethane	U		0.000331	0.00301	1.03	05/14/2018 01:33	WG110914
1,1,2-Trichloroethane	U		0.00106	0.00301	1.03	05/14/2018 01:33	WG110914
Trichloroethene	0.000999	J	0.000482	0.00121	1.03	05/14/2018 01:33	WG110914
Trichlorofluoromethane	U		0.000603	0.00301	1.03	05/14/2018 01:33	WG110914
1,2,3-Trichloropropane	U		0.00615	0.0151	1.03	05/14/2018 01:33	WG110914
1,2,4-Trimethylbenzene	U		0.00139	0.00603	1.03	05/14/2018 01:33	WG110914
1,2,3-Trimethylbenzene	U		0.00138	0.00603	1.03	05/14/2018 01:33	WG110914
1,3,5-Trimethylbenzene	U		0.00130	0.00603	1.03	05/14/2018 01:33	WG110914
Vinyl acetate	U		0.00424	0.0151	1.03	05/14/2018 01:33	WG110914
Vinyl chloride	U		0.000823	0.00301	1.03	05/14/2018 01:33	WG110914
Xylenes, Total	U		0.00576	0.00784	1.03	05/14/2018 01:33	WG110914
(S) Toluene-d8	104			80.0-120		05/15/2018 13:29	WG110914
(S) Toluene-d8	120			80.0-120		05/14/2018 01:33	WG110914
(S) Dibromofluoromethane	80.4			74.0-131		05/15/2018 13:29	WG110914
(S) Dibromofluoromethane	81.0			74.0-131		05/14/2018 01:33	WG110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/14/2018 01:33	WG110914
(S) 4-Bromofluorobenzene	95.8			64.0-132		05/15/2018 13:29	WG110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.9		1	05/16/2018 11:50	WG111636

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		0.0154	0.0281	1	05/14/2018 01:53	WG110914
Acrylonitrile	U		0.00214	0.0141	1	05/14/2018 01:53	WG110914
Benzene	U		0.000450	0.00113	1	05/14/2018 01:53	WG110914
Bromobenzene	U		0.00118	0.0141	1	05/14/2018 01:53	WG110914
Bromodichloromethane	U		0.000887	0.00281	1	05/14/2018 01:53	WG110914
Bromochloromethane	U		0.00127	0.00563	1	05/14/2018 01:53	WG110914
Bromoform	U	UJ JO	0.00673	0.0281	1	05/14/2018 01:53	WG110914
Bromomethane	U		0.00416	0.0141	1	05/14/2018 01:53	WG110914
n-Butylbenzene	U		0.00432	0.0141	1	05/14/2018 01:53	WG110914
sec-Butylbenzene	U		0.00285	0.0141	1	05/14/2018 01:53	WG110914
tert-Butylbenzene	U		0.00174	0.00563	1	05/14/2018 01:53	WG110914
Carbon disulfide	U		0.00457	0.0141	1	05/14/2018 01:53	WG110914
Carbon tetrachloride	U		0.00122	0.00563	1	05/14/2018 01:53	WG110914
Chlorobenzene	U		0.000645	0.00281	1	05/14/2018 01:53	WG110914
Chlorodibromomethane	U		0.000506	0.00281	1	05/14/2018 01:53	WG110914
Chloroethane	U		0.00122	0.00563	1	05/14/2018 01:53	WG110914
Chloroform	U		0.000467	0.00281	1	05/14/2018 01:53	WG110914
Chloromethane	U	UJ JO	0.00156	0.0141	1	05/14/2018 01:53	WG110914
2-Chlorotoluene	U		0.00104	0.00281	1	05/14/2018 01:53	WG110914
4-Chlorotoluene	U		0.00127	0.00563	1	05/14/2018 01:53	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00574	0.0281	1	05/14/2018 01:53	WG110914
1,2-Dibromoethane	U		0.000591	0.00281	1	05/14/2018 01:53	WG110914
Dibromomethane	U		0.00113	0.00563	1	05/14/2018 01:53	WG110914
1,2-Dichlorobenzene	U		0.00163	0.00563	1	05/14/2018 01:53	WG110914
1,3-Dichlorobenzene	U		0.00191	0.00563	1	05/14/2018 01:53	WG110914
1,4-Dichlorobenzene	U		0.00222	0.00563	1	05/14/2018 01:53	WG110914
Dichlorodifluoromethane	U	J3	0.000920	0.00281	1	05/14/2018 01:53	WG110914
1,1-Dichloroethane	U		0.000647	0.00281	1	05/14/2018 01:53	WG110914
1,2-Dichloroethane	U		0.000534	0.00281	1	05/14/2018 01:53	WG110914
1,1-Dichloroethene	U		0.000563	0.00281	1	05/14/2018 01:53	WG110914
cis-1,2-Dichloroethene	0.00150	J J	0.000776	0.00281	1	05/14/2018 01:53	WG110914
trans-1,2-Dichloroethene	U		0.00161	0.00563	1	05/14/2018 01:53	WG110914
1,2-Dichloropropane	U		0.00143	0.00563	1	05/14/2018 01:53	WG110914
1,1-Dichloropropene	U		0.000788	0.00281	1	05/14/2018 01:53	WG110914
1,3-Dichloropropane	U		0.00197	0.00563	1	05/14/2018 01:53	WG110914
cis-1,3-Dichloropropene	U		0.000763	0.00281	1	05/14/2018 01:53	WG110914
trans-1,3-Dichloropropene	U		0.00172	0.00563	1	05/14/2018 01:53	WG110914
trans-1,4-Dichloro-2-butene	U		0.00158	0.00563	1	05/14/2018 01:53	WG110914
2,2-Dichloropropane	U		0.000892	0.00281	1	05/14/2018 01:53	WG110914
Di-isopropyl ether	U		0.000394	0.00113	1	05/14/2018 01:53	WG110914
Ethylbenzene	U		0.000596	0.00281	1	05/14/2018 01:53	WG110914
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	05/14/2018 01:53	WG110914
2-Hexanone	U		0.0113	0.0281	1	05/14/2018 01:53	WG110914
n-Hexane	0.00197	J JJ4	0.00119	0.00563	1	05/14/2018 01:53	WG110914
Iodomethane	U		0.00681	0.0141	1	05/14/2018 01:53	WG110914
Isopropylbenzene	U		0.000971	0.00281	1	05/14/2018 01:53	WG110914
p-Isopropyltoluene	U		0.00262	0.00563	1	05/14/2018 01:53	WG110914
2-Butanone (MEK)	U		0.0141	0.0281	1	05/14/2018 01:53	WG110914
Methylene Chloride	U		0.00747	0.0281	1	05/14/2018 01:53	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0281	1	05/14/2018 01:53	WG110914

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

JC 6/14/18



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	UJ JO J4	0.000332	0.00113	1	05/14/2018 01:53	WG1110914
Naphthalene	U		0.00351	0.0141	1	05/14/2018 01:53	WG1110914
n-Propylbenzene	U	UJ J4	0.00133	0.00563	1	05/14/2018 01:53	WG1110914
Styrene	U		0.00307	0.0141	1	05/14/2018 01:53	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000563	0.00281	1	05/14/2018 01:53	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000439	0.00281	1	05/14/2018 01:53	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000759	0.00281	1	05/14/2018 01:53	WG1110914
Tetrachloroethene	0.00576		0.000788	0.00281	1	05/14/2018 01:53	WG1110914
Toluene	0.00215	J J	0.00141	0.00563	1	05/14/2018 01:53	WG1110914
1,2,3-Trichlorobenzene	U		0.000703	0.00281	1	05/14/2018 01:53	WG1110914
1,2,4-Trichlorobenzene	U		0.00542	0.0141	1	05/14/2018 01:53	WG1110914
1,1,1-Trichloroethane	U		0.000309	0.00281	1	05/14/2018 01:53	WG1110914
1,1,2-Trichloroethane	U		0.000993	0.00281	1	05/14/2018 01:53	WG1110914
Trichloroethene	0.000767	J J	0.000450	0.00113	1	05/14/2018 01:53	WG1110914
Trichlorofluoromethane	U		0.000563	0.00281	1	05/14/2018 01:53	WG1110914
1,2,3-Trichloropropane	U		0.00574	0.0141	1	05/14/2018 01:53	WG1110914
1,2,4-Trimethylbenzene	U		0.00131	0.00563	1	05/14/2018 01:53	WG1110914
1,2,3-Trimethylbenzene	U		0.00129	0.00563	1	05/14/2018 01:53	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00563	1	05/14/2018 01:53	WG1110914
Vinyl acetate	U		0.00396	0.0141	1	05/14/2018 01:53	WG1110914
Vinyl chloride	U		0.000768	0.00281	1	05/14/2018 01:53	WG1110914
Xylenes, Total	U		0.00538	0.00731	1	05/14/2018 01:53	WG1110914
(S) Toluene-d8	119			80.0-120		05/14/2018 01:53	WG1110914
(S) Dibromofluoromethane	77.0			74.0-131		05/14/2018 01:53	WG1110914
(S) 4-Bromofluorobenzene	99.7			64.0-132		05/14/2018 01:53	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	05/16/2018 11:50	WG111636

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		0.0157	0.0286	1	05/14/2018 02:12	WG110914
Acrylonitrile	U		0.00218	0.0143	1	05/14/2018 02:12	WG110914
Benzene	U		0.000458	0.00115	1	05/14/2018 02:12	WG110914
Bromobenzene	U		0.00120	0.0143	1	05/14/2018 02:12	WG110914
Bromodichloromethane	U		0.000902	0.00286	1	05/14/2018 02:12	WG110914
Bromochloromethane	U		0.00129	0.00573	1	05/14/2018 02:12	WG110914
Bromoform	U	UJ JO	0.00685	0.0286	1	05/14/2018 02:12	WG110914
Bromomethane	U		0.00424	0.0143	1	05/14/2018 02:12	WG110914
n-Butylbenzene	U		0.00440	0.0143	1	05/14/2018 02:12	WG110914
sec-Butylbenzene	U		0.00290	0.0143	1	05/14/2018 02:12	WG110914
tert-Butylbenzene	U		0.00177	0.00573	1	05/14/2018 02:12	WG110914
Carbon disulfide	U		0.00465	0.0143	1	05/14/2018 02:12	WG110914
Carbon tetrachloride	U		0.00124	0.00573	1	05/14/2018 02:12	WG110914
Chlorobenzene	U		0.000656	0.00286	1	05/14/2018 02:12	WG110914
Chlorodibromomethane	U		0.000515	0.00286	1	05/14/2018 02:12	WG110914
Chloroethane	U		0.00124	0.00573	1	05/14/2018 02:12	WG110914
Chloroform	U		0.000475	0.00286	1	05/14/2018 02:12	WG110914
Chloromethane	U	UJ JO	0.00159	0.0143	1	05/14/2018 02:12	WG110914
2-Chlorotoluene	U		0.00105	0.00286	1	05/14/2018 02:12	WG110914
4-Chlorotoluene	U		0.00129	0.00573	1	05/14/2018 02:12	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	05/14/2018 02:12	WG110914
1,2-Dibromoethane	U		0.000601	0.00286	1	05/14/2018 02:12	WG110914
Dibromomethane	U		0.00115	0.00573	1	05/14/2018 02:12	WG110914
1,2-Dichlorobenzene	U		0.00166	0.00573	1	05/14/2018 02:12	WG110914
1,3-Dichlorobenzene	U		0.00195	0.00573	1	05/14/2018 02:12	WG110914
1,4-Dichlorobenzene	U		0.00226	0.00573	1	05/14/2018 02:12	WG110914
Dichlorodifluoromethane	U		0.000937	0.00286	1	05/14/2018 02:12	WG110914
1,1-Dichloroethane	U		0.000658	0.00286	1	05/14/2018 02:12	WG110914
1,2-Dichloroethane	U		0.000544	0.00286	1	05/14/2018 02:12	WG110914
1,1-Dichloroethene	U		0.000573	0.00286	1	05/14/2018 02:12	WG110914
cis-1,2-Dichloroethene	0.00111	J J	0.000790	0.00286	1	05/14/2018 02:12	WG110914
trans-1,2-Dichloroethene	U		0.00164	0.00573	1	05/14/2018 02:12	WG110914
1,2-Dichloropropane	U		0.00145	0.00573	1	05/14/2018 02:12	WG110914
1,1-Dichloropropene	U		0.000802	0.00286	1	05/14/2018 02:12	WG110914
1,3-Dichloropropane	U		0.00200	0.00573	1	05/14/2018 02:12	WG110914
cis-1,3-Dichloropropene	U		0.000776	0.00286	1	05/14/2018 02:12	WG110914
trans-1,3-Dichloropropene	U		0.00175	0.00573	1	05/14/2018 02:12	WG110914
trans-1,4-Dichloro-2-butene	U		0.00160	0.00573	1	05/14/2018 02:12	WG110914
2,2-Dichloropropane	U		0.000908	0.00286	1	05/14/2018 02:12	WG110914
Di-isopropyl ether	U		0.000401	0.00115	1	05/14/2018 02:12	WG110914
Ethylbenzene	U		0.000607	0.00286	1	05/14/2018 02:12	WG110914
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	05/14/2018 02:12	WG110914
2-Hexanone	U		0.0115	0.0286	1	05/14/2018 02:12	WG110914
n-Hexane	0.00229	J JJ4	0.00121	0.00573	1	05/14/2018 02:12	WG110914
Iodomethane	U		0.00693	0.0143	1	05/14/2018 02:12	WG110914
Isopropylbenzene	U		0.000988	0.00286	1	05/14/2018 02:12	WG110914
p-Isopropyltoluene	U		0.00267	0.00573	1	05/14/2018 02:12	WG110914
2-Butanone (MEK)	U		0.0143	0.0286	1	05/14/2018 02:12	WG110914
Methylene Chloride	U		0.00760	0.0286	1	05/14/2018 02:12	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0286	1	05/14/2018 02:12	WG110914

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/14/18



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	UJ	0.000338	0.00115	1	05/14/2018 02:12	WG1110914
Naphthalene	U		0.00357	0.0143	1	05/14/2018 02:12	WG1110914
n-Propylbenzene	U	J4	0.00135	0.00573	1	05/14/2018 02:12	WG1110914
Styrene	U		0.00313	0.0143	1	05/14/2018 02:12	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000573	0.00286	1	05/14/2018 02:12	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000447	0.00286	1	05/14/2018 02:12	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000773	0.00286	1	05/14/2018 02:12	WG1110914
Tetrachloroethene	0.00372		0.000802	0.00286	1	05/14/2018 02:12	WG1110914
Toluene	0.00446	J	0.00143	0.00573	1	05/14/2018 02:12	WG1110914
1,2,3-Trichlorobenzene	U		0.000716	0.00286	1	05/14/2018 02:12	WG1110914
1,2,4-Trichlorobenzene	U		0.00552	0.0143	1	05/14/2018 02:12	WG1110914
1,1,1-Trichloroethane	U		0.000315	0.00286	1	05/14/2018 02:12	WG1110914
1,1,2-Trichloroethane	U		0.00101	0.00286	1	05/14/2018 02:12	WG1110914
Trichloroethene	0.000650	J	0.000458	0.00115	1	05/14/2018 02:12	WG1110914
Trichlorofluoromethane	U		0.000573	0.00286	1	05/14/2018 02:12	WG1110914
1,2,3-Trichloropropane	U		0.00584	0.0143	1	05/14/2018 02:12	WG1110914
1,2,4-Trimethylbenzene	U		0.00133	0.00573	1	05/14/2018 02:12	WG1110914
1,2,3-Trimethylbenzene	U		0.00132	0.00573	1	05/14/2018 02:12	WG1110914
1,3,5-Trimethylbenzene	U		0.00124	0.00573	1	05/14/2018 02:12	WG1110914
Vinyl acetate	U		0.00403	0.0143	1	05/14/2018 02:12	WG1110914
Vinyl chloride	U		0.000782	0.00286	1	05/14/2018 02:12	WG1110914
Xylenes, Total	U		0.00547	0.00744	1	05/14/2018 02:12	WG1110914
(S) Toluene-d8	119			80.0-120		05/14/2018 02:12	WG1110914
(S) Dibromofluoromethane	76.5			74.0-131		05/14/2018 02:12	WG1110914
(S) 4-Bromofluorobenzene	96.7			64.0-132		05/14/2018 02:12	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	05/16/2018 11:50	WG111636

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		0.0155	0.0284	1	05/14/2018 02:31	WG110914
Acrylonitrile	U		0.00216	0.0142	1	05/14/2018 02:31	WG110914
Benzene	U		0.000454	0.00113	1	05/14/2018 02:31	WG110914
Bromobenzene	U		0.00119	0.0142	1	05/14/2018 02:31	WG110914
Bromodichloromethane	U		0.000894	0.00284	1	05/14/2018 02:31	WG110914
Bromochloromethane	U		0.00128	0.00567	1	05/14/2018 02:31	WG110914
Bromoform	U	UJ JO	0.00679	0.0284	1	05/14/2018 02:31	WG110914
Bromomethane	U		0.00420	0.0142	1	05/14/2018 02:31	WG110914
n-Butylbenzene	U		0.00436	0.0142	1	05/14/2018 02:31	WG110914
sec-Butylbenzene	U		0.00287	0.0142	1	05/14/2018 02:31	WG110914
tert-Butylbenzene	U		0.00176	0.00567	1	05/14/2018 02:31	WG110914
Carbon disulfide	U		0.00461	0.0142	1	05/14/2018 02:31	WG110914
Carbon tetrachloride	U		0.00123	0.00567	1	05/14/2018 02:31	WG110914
Chlorobenzene	U		0.000650	0.00284	1	05/14/2018 02:31	WG110914
Chlorodibromomethane	U		0.000511	0.00284	1	05/14/2018 02:31	WG110914
Chloroethane	U		0.00123	0.00567	1	05/14/2018 02:31	WG110914
Chloroform	U		0.000471	0.00284	1	05/14/2018 02:31	WG110914
Chloromethane	U	UJ JO	0.00158	0.0142	1	05/14/2018 02:31	WG110914
2-Chlorotoluene	U		0.00104	0.00284	1	05/14/2018 02:31	WG110914
4-Chlorotoluene	U		0.00128	0.00567	1	05/14/2018 02:31	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00579	0.0284	1	05/14/2018 02:31	WG110914
1,2-Dibromoethane	U		0.000596	0.00284	1	05/14/2018 02:31	WG110914
Dibromomethane	U		0.00113	0.00567	1	05/14/2018 02:31	WG110914
1,2-Dichlorobenzene	U		0.00165	0.00567	1	05/14/2018 02:31	WG110914
1,3-Dichlorobenzene	U		0.00193	0.00567	1	05/14/2018 02:31	WG110914
1,4-Dichlorobenzene	U		0.00224	0.00567	1	05/14/2018 02:31	WG110914
Dichlorodifluoromethane	U		0.000928	0.00284	1	05/14/2018 02:31	WG110914
1,1-Dichloroethane	U		0.000653	0.00284	1	05/14/2018 02:31	WG110914
1,2-Dichloroethane	U		0.000539	0.00284	1	05/14/2018 02:31	WG110914
1,1-Dichloroethene	U		0.000567	0.00284	1	05/14/2018 02:31	WG110914
cis-1,2-Dichloroethene	0.00153	J J	0.000783	0.00284	1	05/14/2018 02:31	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00567	1	05/14/2018 02:31	WG110914
1,2-Dichloropropane	U		0.00144	0.00567	1	05/14/2018 02:31	WG110914
1,1-Dichloropropene	U		0.000794	0.00284	1	05/14/2018 02:31	WG110914
1,3-Dichloropropane	U		0.00199	0.00567	1	05/14/2018 02:31	WG110914
cis-1,3-Dichloropropene	U		0.000769	0.00284	1	05/14/2018 02:31	WG110914
trans-1,3-Dichloropropene	U		0.00174	0.00567	1	05/14/2018 02:31	WG110914
trans-1,4-Dichloro-2-butene	U		0.00159	0.00567	1	05/14/2018 02:31	WG110914
2,2-Dichloropropane	U		0.000900	0.00284	1	05/14/2018 02:31	WG110914
Di-isopropyl ether	U		0.000397	0.00113	1	05/14/2018 02:31	WG110914
Ethylbenzene	U		0.000601	0.00284	1	05/14/2018 02:31	WG110914
Hexachloro-1,3-butadiene	U		0.0144	0.0284	1	05/14/2018 02:31	WG110914
2-Hexanone	U		0.0113	0.0284	1	05/14/2018 02:31	WG110914
n-Hexane	0.00222	J JJ4	0.00120	0.00567	1	05/14/2018 02:31	WG110914
Iodomethane	U		0.00687	0.0142	1	05/14/2018 02:31	WG110914
Isopropylbenzene	U		0.000979	0.00284	1	05/14/2018 02:31	WG110914
p-Isopropyltoluene	U		0.00264	0.00567	1	05/14/2018 02:31	WG110914
2-Butanone (MEK)	U		0.0142	0.0284	1	05/14/2018 02:31	WG110914
Methylene Chloride	U		0.00754	0.0284	1	05/14/2018 02:31	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0284	1	05/14/2018 02:31	WG110914

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

JC 6/14/18



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	0.000377	J JJO J4	0.000335	0.00113	1	05/14/2018 02:31	WG1110914
Naphthalene	U		0.00354	0.0142	1	05/14/2018 02:31	WG1110914
n-Propylbenzene	U	UJ J4	0.00134	0.00567	1	05/14/2018 02:31	WG1110914
Styrene	U		0.00310	0.0142	1	05/14/2018 02:31	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000567	0.00284	1	05/14/2018 02:31	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000443	0.00284	1	05/14/2018 02:31	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000766	0.00284	1	05/14/2018 02:31	WG1110914
Tetrachloroethene	0.00493		0.000794	0.00284	1	05/14/2018 02:31	WG1110914
Toluene	0.00208	J J	0.00142	0.00567	1	05/14/2018 02:31	WG1110914
1,2,3-Trichlorobenzene	U		0.000709	0.00284	1	05/14/2018 02:31	WG1110914
1,2,4-Trichlorobenzene	U		0.00547	0.0142	1	05/14/2018 02:31	WG1110914
1,1,1-Trichloroethane	U		0.000312	0.00284	1	05/14/2018 02:31	WG1110914
1,1,2-Trichloroethane	U		0.00100	0.00284	1	05/14/2018 02:31	WG1110914
Trichloroethene	0.000723	J J	0.000454	0.00113	1	05/14/2018 02:31	WG1110914
Trichlorofluoromethane	U		0.000567	0.00284	1	05/14/2018 02:31	WG1110914
1,2,3-Trichloropropane	U		0.00579	0.0142	1	05/14/2018 02:31	WG1110914
1,2,4-Trimethylbenzene	U		0.00132	0.00567	1	05/14/2018 02:31	WG1110914
1,2,3-Trimethylbenzene	U		0.00131	0.00567	1	05/14/2018 02:31	WG1110914
1,3,5-Trimethylbenzene	U		0.00123	0.00567	1	05/14/2018 02:31	WG1110914
Vinyl acetate	U		0.00399	0.0142	1	05/14/2018 02:31	WG1110914
Vinyl chloride	U		0.000775	0.00284	1	05/14/2018 02:31	WG1110914
Xylenes, Total	U		0.00542	0.00738	1	05/14/2018 02:31	WG1110914
(S) Toluene-d8	119			80.0-120		05/14/2018 02:31	WG1110914
(S) Dibromofluoromethane	82.4			74.0-131		05/14/2018 02:31	WG1110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/14/2018 02:31	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.8		1	05/16/2018 10:57	WG111637

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		0.0169	0.0309	1	05/14/2018 02:51	WG110914
Acrylonitrile	U		0.00235	0.0155	1	05/14/2018 02:51	WG110914
Benzene	U		0.000495	0.00124	1	05/14/2018 02:51	WG110914
Bromobenzene	U		0.00130	0.0155	1	05/14/2018 02:51	WG110914
Bromodichloromethane	U		0.000975	0.00309	1	05/14/2018 02:51	WG110914
Bromochloromethane	U		0.00140	0.00618	1	05/14/2018 02:51	WG110914
Bromoform	U	UJ JO	0.00740	0.0309	1	05/14/2018 02:51	WG110914
Bromomethane	U		0.00458	0.0155	1	05/14/2018 02:51	WG110914
n-Butylbenzene	U		0.00475	0.0155	1	05/14/2018 02:51	WG110914
sec-Butylbenzene	U		0.00313	0.0155	1	05/14/2018 02:51	WG110914
tert-Butylbenzene	U		0.00192	0.00618	1	05/14/2018 02:51	WG110914
Carbon disulfide	U		0.00502	0.0155	1	05/14/2018 02:51	WG110914
Carbon tetrachloride	U		0.00134	0.00618	1	05/14/2018 02:51	WG110914
Chlorobenzene	U		0.000709	0.00309	1	05/14/2018 02:51	WG110914
Chlorodibromomethane	U		0.000557	0.00309	1	05/14/2018 02:51	WG110914
Chloroethane	U		0.00134	0.00618	1	05/14/2018 02:51	WG110914
Chloroform	U		0.000513	0.00309	1	05/14/2018 02:51	WG110914
Chloromethane	U	UJ JO	0.00172	0.0155	1	05/14/2018 02:51	WG110914
2-Chlorotoluene	U		0.00114	0.00309	1	05/14/2018 02:51	WG110914
4-Chlorotoluene	U		0.00140	0.00618	1	05/14/2018 02:51	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00631	0.0309	1	05/14/2018 02:51	WG110914
1,2-Dibromoethane	U		0.000649	0.00309	1	05/14/2018 02:51	WG110914
Dibromomethane	U		0.00124	0.00618	1	05/14/2018 02:51	WG110914
1,2-Dichlorobenzene	U		0.00179	0.00618	1	05/14/2018 02:51	WG110914
1,3-Dichlorobenzene	U		0.00210	0.00618	1	05/14/2018 02:51	WG110914
1,4-Dichlorobenzene	U		0.00244	0.00618	1	05/14/2018 02:51	WG110914
Dichlorodifluoromethane	U	J3	0.00101	0.00309	1	05/14/2018 02:51	WG110914
1,1-Dichloroethane	U		0.000711	0.00309	1	05/14/2018 02:51	WG110914
1,2-Dichloroethane	U		0.000588	0.00309	1	05/14/2018 02:51	WG110914
1,1-Dichloroethene	U		0.000618	0.00309	1	05/14/2018 02:51	WG110914
cis-1,2-Dichloroethene	0.0338		0.000854	0.00309	1	05/14/2018 02:51	WG110914
trans-1,2-Dichloroethene	U		0.00177	0.00618	1	05/14/2018 02:51	WG110914
1,2-Dichloropropane	U		0.00157	0.00618	1	05/14/2018 02:51	WG110914
1,1-Dichloropropene	U		0.000866	0.00309	1	05/14/2018 02:51	WG110914
1,3-Dichloropropane	U		0.00216	0.00618	1	05/14/2018 02:51	WG110914
cis-1,3-Dichloropropene	U		0.000839	0.00309	1	05/14/2018 02:51	WG110914
trans-1,3-Dichloropropene	U		0.00189	0.00618	1	05/14/2018 02:51	WG110914
trans-1,4-Dichloro-2-butene	U		0.00173	0.00618	1	05/14/2018 02:51	WG110914
2,2-Dichloropropane	U		0.000981	0.00309	1	05/14/2018 02:51	WG110914
Di-isopropyl ether	U		0.000433	0.00124	1	05/14/2018 02:51	WG110914
Ethylbenzene	U		0.000656	0.00309	1	05/14/2018 02:51	WG110914
Hexachloro-1,3-butadiene	U		0.0157	0.0309	1	05/14/2018 02:51	WG110914
2-Hexanone	U		0.0124	0.0309	1	05/14/2018 02:51	WG110914
n-Hexane	0.00253	J JJ4	0.00131	0.00618	1	05/14/2018 02:51	WG110914
Iodomethane	U		0.00748	0.0155	1	05/14/2018 02:51	WG110914 JC 6/14/18
Isopropylbenzene	U		0.00107	0.00309	1	05/14/2018 02:51	WG110914
p-Isopropyltoluene	U		0.00288	0.00618	1	05/14/2018 02:51	WG110914
2-Butanone (MEK)	U		0.0155	0.0309	1	05/14/2018 02:51	WG110914
Methylene Chloride	U		0.00821	0.0309	1	05/14/2018 02:51	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0124	0.0309	1	05/14/2018 02:51	WG110914

- 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	UJ	0.000365	0.00124	1	05/14/2018 02:51	WG1110914
Naphthalene	U		0.00386	0.0155	1	05/14/2018 02:51	WG1110914
n-Propylbenzene	U	UJ	0.00146	0.00618	1	05/14/2018 02:51	WG1110914
Styrene	U		0.00338	0.0155	1	05/14/2018 02:51	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000618	0.00309	1	05/14/2018 02:51	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000482	0.00309	1	05/14/2018 02:51	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000835	0.00309	1	05/14/2018 02:51	WG1110914
Tetrachloroethene	0.00178	J	0.000866	0.00309	1	05/14/2018 02:51	WG1110914
Toluene	0.00178	J	0.00155	0.00618	1	05/14/2018 02:51	WG1110914
1,2,3-Trichlorobenzene	U		0.000773	0.00309	1	05/14/2018 02:51	WG1110914
1,2,4-Trichlorobenzene	U		0.00596	0.0155	1	05/14/2018 02:51	WG1110914
1,1,1-Trichloroethane	U		0.000340	0.00309	1	05/14/2018 02:51	WG1110914
1,1,2-Trichloroethane	U		0.00109	0.00309	1	05/14/2018 02:51	WG1110914
Trichloroethene	U		0.000495	0.00124	1	05/14/2018 02:51	WG1110914
Trichlorofluoromethane	U		0.000618	0.00309	1	05/14/2018 02:51	WG1110914
1,2,3-Trichloropropane	U		0.00631	0.0155	1	05/14/2018 02:51	WG1110914
1,2,4-Trimethylbenzene	U		0.00143	0.00618	1	05/14/2018 02:51	WG1110914
1,2,3-Trimethylbenzene	U		0.00142	0.00618	1	05/14/2018 02:51	WG1110914
1,3,5-Trimethylbenzene	U		0.00134	0.00618	1	05/14/2018 02:51	WG1110914
Vinyl acetate	U		0.00435	0.0155	1	05/14/2018 02:51	WG1110914
Vinyl chloride	0.0154		0.000845	0.00309	1	05/14/2018 02:51	WG1110914
Xylenes, Total	U		0.00591	0.00804	1	05/14/2018 02:51	WG1110914
(S) Toluene-d8	120			80.0-120		05/14/2018 02:51	WG1110914
(S) Dibromofluoromethane	76.6			74.0-131		05/14/2018 02:51	WG1110914
(S) 4-Bromofluorobenzene	98.0			64.0-132		05/14/2018 02:51	WG1110914

- 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	Batch
	%			date / time	
Total Solids	90.0		1	05/16/2018 10:57	WG111637

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	0.0166	J	0.0152	0.0278	1	05/14/2018 03:10	WG110914
Acrylonitrile	U	UJ	0.00211	0.0139	1	05/14/2018 03:10	WG110914
Benzene	U		0.000445	0.00111	1	05/14/2018 03:10	WG110914
Bromobenzene	U		0.00117	0.0139	1	05/14/2018 03:10	WG110914
Bromodichloromethane	U		0.000876	0.00278	1	05/14/2018 03:10	WG110914
Bromochloromethane	U		0.00126	0.00556	1	05/14/2018 03:10	WG110914
Bromoform	U	UJ	0.00665	0.0278	1	05/14/2018 03:10	WG110914
Bromomethane	U		0.00411	0.0139	1	05/14/2018 03:10	WG110914
n-Butylbenzene	U		0.00427	0.0139	1	05/14/2018 03:10	WG110914
sec-Butylbenzene	U		0.00281	0.0139	1	05/14/2018 03:10	WG110914
tert-Butylbenzene	U		0.00172	0.00556	1	05/14/2018 03:10	WG110914
Carbon disulfide	U		0.00451	0.0139	1	05/14/2018 03:10	WG110914
Carbon tetrachloride	U		0.00120	0.00556	1	05/14/2018 03:10	WG110914
Chlorobenzene	U		0.000637	0.00278	1	05/14/2018 03:10	WG110914
Chlorodibromomethane	U		0.000500	0.00278	1	05/14/2018 03:10	WG110914
Chloroethane	U		0.00120	0.00556	1	05/14/2018 03:10	WG110914
Chloroform	U		0.000461	0.00278	1	05/14/2018 03:10	WG110914
Chloromethane	U	UJ	0.00154	0.0139	1	05/14/2018 03:10	WG110914
2-Chlorotoluene	U		0.00102	0.00278	1	05/14/2018 03:10	WG110914
4-Chlorotoluene	U		0.00126	0.00556	1	05/14/2018 03:10	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00567	0.0278	1	05/14/2018 03:10	WG110914
1,2-Dibromoethane	U		0.000584	0.00278	1	05/14/2018 03:10	WG110914
Dibromomethane	U		0.00111	0.00556	1	05/14/2018 03:10	WG110914
1,2-Dichlorobenzene	U		0.00161	0.00556	1	05/14/2018 03:10	WG110914
1,3-Dichlorobenzene	U		0.00189	0.00556	1	05/14/2018 03:10	WG110914
1,4-Dichlorobenzene	U		0.00219	0.00556	1	05/14/2018 03:10	WG110914
Dichlorodifluoromethane	U	J3	0.000909	0.00278	1	05/14/2018 03:10	WG110914
1,1-Dichloroethane	U		0.000639	0.00278	1	05/14/2018 03:10	WG110914
1,2-Dichloroethane	U		0.000528	0.00278	1	05/14/2018 03:10	WG110914
1,1-Dichloroethene	0.00147	J	0.000556	0.00278	1	05/14/2018 03:10	WG110914
cis-1,2-Dichloroethene	0.232	J	0.000767	0.00278	1	05/14/2018 03:10	WG110914
trans-1,2-Dichloroethene	U	I UJ	0.00159	0.00556	1	05/14/2018 03:10	WG110914
1,2-Dichloropropane	U		0.00141	0.00556	1	05/14/2018 03:10	WG110914
1,1-Dichloropropene	U		0.000778	0.00278	1	05/14/2018 03:10	WG110914
1,3-Dichloropropane	U		0.00195	0.00556	1	05/14/2018 03:10	WG110914
cis-1,3-Dichloropropene	U		0.000754	0.00278	1	05/14/2018 03:10	WG110914
trans-1,3-Dichloropropene	U		0.00170	0.00556	1	05/14/2018 03:10	WG110914
trans-1,4-Dichloro-2-butene	U		0.00156	0.00556	1	05/14/2018 03:10	WG110914
2,2-Dichloropropane	U		0.000881	0.00278	1	05/14/2018 03:10	WG110914
Di-isopropyl ether	U		0.000389	0.00111	1	05/14/2018 03:10	WG110914
Ethylbenzene	U		0.000589	0.00278	1	05/14/2018 03:10	WG110914
Hexachloro-1,3-butadiene	U		0.0141	0.0278	1	05/14/2018 03:10	WG110914
2-Hexanone	U	UJ	0.0111	0.0278	1	05/14/2018 03:10	WG110914
n-Hexane	0.00291	J	0.00118	0.00556	1	05/14/2018 03:10	WG110914
Iodomethane	U	UJ	0.00672	0.0139	1	05/14/2018 03:10	WG110914
Isopropylbenzene	U		0.000959	0.00278	1	05/14/2018 03:10	WG110914
p-Isopropyltoluene	U		0.00259	0.00556	1	05/14/2018 03:10	WG110914
2-Butanone (MEK)	U		0.0139	0.0278	1	05/14/2018 03:10	WG110914
Methylene Chloride	U		0.00738	0.0278	1	05/14/2018 03:10	WG110914
4-Methyl-2-pentanone (MIBK)	U	UJ	0.0111	0.0278	1	05/14/2018 03:10	WG110914

- 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	0.000596	J	0.000328	0.00111	1	05/14/2018 03:10	WG1110914
Naphthalene	U	UJ	0.00347	0.0139	1	05/14/2018 03:10	WG1110914
n-Propylbenzene	U	UJ	0.00131	0.00556	1	05/14/2018 03:10	WG1110914
Styrene	U	UJ	0.00303	0.0139	1	05/14/2018 03:10	WG1110914
1,1,1,2-Tetrachloroethane	U	UJ	0.000556	0.00278	1	05/14/2018 03:10	WG1110914
1,1,2,2-Tetrachloroethane	U	UJ	0.000433	0.00278	1	05/14/2018 03:10	WG1110914
1,1,2-Trichlorotrifluoroethane	U	UJ	0.000750	0.00278	1	05/14/2018 03:10	WG1110914
Tetrachloroethene	0.223	J	0.000778	0.00278	1	05/14/2018 03:10	WG1110914
Toluene	0.00520	J	0.00139	0.00556	1	05/14/2018 03:10	WG1110914
1,2,3-Trichlorobenzene	U	UJ	0.000695	0.00278	1	05/14/2018 03:10	WG1110914
1,2,4-Trichlorobenzene	U	UJ	0.00536	0.0139	1	05/14/2018 03:10	WG1110914
1,1,1-Trichloroethane	U	UJ	0.000306	0.00278	1	05/14/2018 03:10	WG1110914
1,1,2-Trichloroethane	U	UJ	0.000981	0.00278	1	05/14/2018 03:10	WG1110914
Trichloroethene	0.239	J	0.000445	0.00111	1	05/14/2018 03:10	WG1110914
Trichlorofluoromethane	U	UJ	0.000556	0.00278	1	05/14/2018 03:10	WG1110914
1,2,3-Trichloropropane	U	UJ	0.00567	0.0139	1	05/14/2018 03:10	WG1110914
1,2,4-Trimethylbenzene	U	UJ	0.00129	0.00556	1	05/14/2018 03:10	WG1110914
1,2,3-Trimethylbenzene	U	UJ	0.00128	0.00556	1	05/14/2018 03:10	WG1110914
1,3,5-Trimethylbenzene	U	UJ	0.00120	0.00556	1	05/14/2018 03:10	WG1110914
Vinyl acetate	U	UJ	0.00391	0.0139	1	05/14/2018 03:10	WG1110914
Vinyl chloride	0.00822	J	0.000759	0.00278	1	05/14/2018 03:10	WG1110914
Xylenes, Total	U	UJ	0.00531	0.00722	1	05/14/2018 03:10	WG1110914
(S) Toluene-d8	121	J1		80.0-120		05/14/2018 03:10	WG1110914
(S) Dibromofluoromethane	73.7	J2		74.0-131		05/14/2018 03:10	WG1110914
(S) 4-Bromofluorobenzene	101			64.0-132		05/14/2018 03:10	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	05/16/2018 10:57	WG111637

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	0.0178	J	0.0159	0.0290	1	05/14/2018 03:30	WG110914
Acrylonitrile	U		0.00220	0.0145	1	05/14/2018 03:30	WG110914
Benzene	U		0.000463	0.00116	1	05/14/2018 03:30	WG110914
Bromobenzene	U		0.00122	0.0145	1	05/14/2018 03:30	WG110914
Bromodichloromethane	U		0.000913	0.00290	1	05/14/2018 03:30	WG110914
Bromochloromethane	U		0.00131	0.00579	1	05/14/2018 03:30	WG110914
Bromoform	U	UJ	0.00693	0.0290	1	05/14/2018 03:30	WG110914
Bromomethane	U		0.00429	0.0145	1	05/14/2018 03:30	WG110914
n-Butylbenzene	U		0.00445	0.0145	1	05/14/2018 03:30	WG110914
sec-Butylbenzene	U		0.00293	0.0145	1	05/14/2018 03:30	WG110914
tert-Butylbenzene	U		0.00180	0.00579	1	05/14/2018 03:30	WG110914
Carbon disulfide	U		0.00470	0.0145	1	05/14/2018 03:30	WG110914
Carbon tetrachloride	U		0.00125	0.00579	1	05/14/2018 03:30	WG110914
Chlorobenzene	U		0.000664	0.00290	1	05/14/2018 03:30	WG110914
Chlorodibromomethane	U		0.000521	0.00290	1	05/14/2018 03:30	WG110914
Chloroethane	U		0.00125	0.00579	1	05/14/2018 03:30	WG110914
Chloroform	U		0.000481	0.00290	1	05/14/2018 03:30	WG110914
Chloromethane	U	UJ	0.00161	0.0145	1	05/14/2018 03:30	WG110914
2-Chlorotoluene	U		0.00107	0.00290	1	05/14/2018 03:30	WG110914
4-Chlorotoluene	U		0.00131	0.00579	1	05/14/2018 03:30	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	05/14/2018 03:30	WG110914
1,2-Dibromoethane	U		0.000608	0.00290	1	05/14/2018 03:30	WG110914
Dibromomethane	U		0.00116	0.00579	1	05/14/2018 03:30	WG110914
1,2-Dichlorobenzene	U		0.00168	0.00579	1	05/14/2018 03:30	WG110914
1,3-Dichlorobenzene	U		0.00197	0.00579	1	05/14/2018 03:30	WG110914
1,4-Dichlorobenzene	U		0.00228	0.00579	1	05/14/2018 03:30	WG110914
Dichlorodifluoromethane	U		0.000948	0.00290	1	05/14/2018 03:30	WG110914
1,1-Dichloroethane	U	J3	0.000666	0.00290	1	05/14/2018 03:30	WG110914
1,2-Dichloroethane	U		0.000550	0.00290	1	05/14/2018 03:30	WG110914
1,1-Dichloroethene	U		0.000579	0.00290	1	05/14/2018 03:30	WG110914
cis-1,2-Dichloroethene	U		0.000799	0.00290	1	05/14/2018 03:30	WG110914
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	05/14/2018 03:30	WG110914
1,2-Dichloropropane	U		0.00147	0.00579	1	05/14/2018 03:30	WG110914
1,1-Dichloropropene	U		0.000811	0.00290	1	05/14/2018 03:30	WG110914
1,3-Dichloropropane	U		0.00203	0.00579	1	05/14/2018 03:30	WG110914
cis-1,3-Dichloropropene	U		0.000786	0.00290	1	05/14/2018 03:30	WG110914
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	05/14/2018 03:30	WG110914
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	05/14/2018 03:30	WG110914
2,2-Dichloropropane	U		0.000919	0.00290	1	05/14/2018 03:30	WG110914
Di-isopropyl ether	U		0.000406	0.00116	1	05/14/2018 03:30	WG110914
Ethylbenzene	U		0.000614	0.00290	1	05/14/2018 03:30	WG110914
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	05/14/2018 03:30	WG110914
2-Hexanone	U		0.0116	0.0290	1	05/14/2018 03:30	WG110914
n-Hexane	0.00301	J	0.00123	0.00579	1	05/14/2018 03:30	WG110914
Iodomethane	U		0.00701	0.0145	1	05/14/2018 03:30	WG110914
Isopropylbenzene	U		0.00100	0.00290	1	05/14/2018 03:30	WG110914
p-Isopropyltoluene	U		0.00270	0.00579	1	05/14/2018 03:30	WG110914
2-Butanone (MEK)	U		0.0145	0.0290	1	05/14/2018 03:30	WG110914
Methylene Chloride	U		0.00769	0.0290	1	05/14/2018 03:30	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	05/14/2018 03:30	WG110914

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

JC 6/14/18



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	0.000689	J	0.000342	0.00116	1	05/14/2018 03:30	WG1110914
Naphthalene	U		0.00361	0.0145	1	05/14/2018 03:30	WG1110914
n-Propylbenzene	U	UJ	0.00137	0.00579	1	05/14/2018 03:30	WG1110914
Styrene	U		0.00316	0.0145	1	05/14/2018 03:30	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	05/14/2018 03:30	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	05/14/2018 03:30	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	05/14/2018 03:30	WG1110914
Tetrachloroethene	0.00130	J	0.000811	0.00290	1	05/14/2018 03:30	WG1110914
Toluene	0.00494	J	0.00145	0.00579	1	05/14/2018 03:30	WG1110914
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	05/14/2018 03:30	WG1110914
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	05/14/2018 03:30	WG1110914
1,1,1-Trichloroethane	U		0.000319	0.00290	1	05/14/2018 03:30	WG1110914
1,1,2-Trichloroethane	U		0.00102	0.00290	1	05/14/2018 03:30	WG1110914
Trichloroethene	U		0.000463	0.00116	1	05/14/2018 03:30	WG1110914
Trichlorofluoromethane	U		0.000579	0.00290	1	05/14/2018 03:30	WG1110914
1,2,3-Trichloropropane	U		0.00591	0.0145	1	05/14/2018 03:30	WG1110914
1,2,4-Trimethylbenzene	U		0.00134	0.00579	1	05/14/2018 03:30	WG1110914
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	05/14/2018 03:30	WG1110914
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	05/14/2018 03:30	WG1110914
Vinyl acetate	U		0.00408	0.0145	1	05/14/2018 03:30	WG1110914
Vinyl chloride	U		0.000791	0.00290	1	05/14/2018 03:30	WG1110914
Xylenes, Total	U		0.00554	0.00753	1	05/14/2018 03:30	WG1110914
(S) Toluene-d8	120			80.0-120		05/14/2018 03:30	WG1110914
(S) Dibromofluoromethane	81.1			74.0-131		05/14/2018 03:30	WG1110914
(S) 4-Bromofluorobenzene	100			64.0-132		05/14/2018 03:30	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	05/16/2018 10:57	WG111637

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		0.0155	0.0282	1	05/14/2018 03:49	WG110914
Acrylonitrile	U		0.00215	0.0141	1	05/14/2018 03:49	WG110914
Benzene	U		0.000452	0.00113	1	05/14/2018 03:49	WG110914
Bromobenzene	U		0.00119	0.0141	1	05/14/2018 03:49	WG110914
Bromodichloromethane	U		0.000890	0.00282	1	05/14/2018 03:49	WG110914
Bromochloromethane	U		0.00128	0.00565	1	05/14/2018 03:49	WG110914
Bromoform	U	UJ JO	0.00675	0.0282	1	05/14/2018 03:49	WG110914
Bromomethane	U		0.00418	0.0141	1	05/14/2018 03:49	WG110914
n-Butylbenzene	U		0.00434	0.0141	1	05/14/2018 03:49	WG110914
sec-Butylbenzene	U		0.00286	0.0141	1	05/14/2018 03:49	WG110914
tert-Butylbenzene	U		0.00175	0.00565	1	05/14/2018 03:49	WG110914
Carbon disulfide	U		0.00459	0.0141	1	05/14/2018 03:49	WG110914
Carbon tetrachloride	U		0.00122	0.00565	1	05/14/2018 03:49	WG110914
Chlorobenzene	U		0.000647	0.00282	1	05/14/2018 03:49	WG110914
Chlorodibromomethane	U		0.000508	0.00282	1	05/14/2018 03:49	WG110914
Chloroethane	U		0.00122	0.00565	1	05/14/2018 03:49	WG110914
Chloroform	U		0.000469	0.00282	1	05/14/2018 03:49	WG110914
Chloromethane	U	UJ JO	0.00157	0.0141	1	05/14/2018 03:49	WG110914
2-Chlorotoluene	U		0.00104	0.00282	1	05/14/2018 03:49	WG110914
4-Chlorotoluene	U		0.00128	0.00565	1	05/14/2018 03:49	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0282	1	05/14/2018 03:49	WG110914
1,2-Dibromoethane	U		0.000593	0.00282	1	05/14/2018 03:49	WG110914
Dibromomethane	U		0.00113	0.00565	1	05/14/2018 03:49	WG110914
1,2-Dichlorobenzene	U		0.00164	0.00565	1	05/14/2018 03:49	WG110914
1,3-Dichlorobenzene	U		0.00192	0.00565	1	05/14/2018 03:49	WG110914
1,4-Dichlorobenzene	U		0.00223	0.00565	1	05/14/2018 03:49	WG110914
Dichlorodifluoromethane	U	J3	0.000924	0.00282	1	05/14/2018 03:49	WG110914
1,1-Dichloroethane	U		0.000649	0.00282	1	05/14/2018 03:49	WG110914
1,2-Dichloroethane	U		0.000536	0.00282	1	05/14/2018 03:49	WG110914
1,1-Dichloroethene	U		0.000565	0.00282	1	05/14/2018 03:49	WG110914
cis-1,2-Dichloroethene	U		0.000779	0.00282	1	05/14/2018 03:49	WG110914
trans-1,2-Dichloroethene	U		0.00162	0.00565	1	05/14/2018 03:49	WG110914
1,2-Dichloropropane	U		0.00143	0.00565	1	05/14/2018 03:49	WG110914
1,1-Dichloropropene	U		0.000791	0.00282	1	05/14/2018 03:49	WG110914
1,3-Dichloropropane	U		0.00198	0.00565	1	05/14/2018 03:49	WG110914
cis-1,3-Dichloropropene	U		0.000766	0.00282	1	05/14/2018 03:49	WG110914
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	05/14/2018 03:49	WG110914
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	05/14/2018 03:49	WG110914
2,2-Dichloropropane	U		0.000896	0.00282	1	05/14/2018 03:49	WG110914
Di-isopropyl ether	U		0.000395	0.00113	1	05/14/2018 03:49	WG110914
Ethylbenzene	U		0.000599	0.00282	1	05/14/2018 03:49	WG110914
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	05/14/2018 03:49	WG110914 JC 6/14/18
2-Hexanone	U		0.0113	0.0282	1	05/14/2018 03:49	WG110914
n-Hexane	U	J4	0.00120	0.00565	1	05/14/2018 03:49	WG110914
Iodomethane	U		0.00683	0.0141	1	05/14/2018 03:49	WG110914
Isopropylbenzene	U		0.000975	0.00282	1	05/14/2018 03:49	WG110914
p-Isopropyltoluene	U		0.00263	0.00565	1	05/14/2018 03:49	WG110914
2-Butanone (MEK)	U		0.0141	0.0282	1	05/14/2018 03:49	WG110914
Methylene Chloride	U		0.00750	0.0282	1	05/14/2018 03:49	WG110914
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	05/14/2018 03:49	WG110914

- 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	0.000343	J	0.000333	0.00113	1	05/14/2018 03:49	WG1110914
Naphthalene	U		0.00352	0.0141	1	05/14/2018 03:49	WG1110914
n-Propylbenzene	U	UJ	0.00133	0.00565	1	05/14/2018 03:49	WG1110914
Styrene	U	J4	0.00308	0.0141	1	05/14/2018 03:49	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000565	0.00282	1	05/14/2018 03:49	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000440	0.00282	1	05/14/2018 03:49	WG1110914
1,1,2-Trichlorotrifluoroethane	U		0.000762	0.00282	1	05/14/2018 03:49	WG1110914
Tetrachloroethene	U		0.000791	0.00282	1	05/14/2018 03:49	WG1110914
Toluene	U		0.00141	0.00565	1	05/14/2018 03:49	WG1110914
1,2,3-Trichlorobenzene	U		0.000706	0.00282	1	05/14/2018 03:49	WG1110914
1,2,4-Trichlorobenzene	U		0.00544	0.0141	1	05/14/2018 03:49	WG1110914
1,1,1-Trichloroethane	U		0.000311	0.00282	1	05/14/2018 03:49	WG1110914
1,1,2-Trichloroethane	U		0.000997	0.00282	1	05/14/2018 03:49	WG1110914
Trichloroethene	U		0.000452	0.00113	1	05/14/2018 03:49	WG1110914
Trichlorofluoromethane	U		0.000565	0.00282	1	05/14/2018 03:49	WG1110914
1,2,3-Trichloropropane	U		0.00576	0.0141	1	05/14/2018 03:49	WG1110914
1,2,4-Trimethylbenzene	U		0.00131	0.00565	1	05/14/2018 03:49	WG1110914
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	05/14/2018 03:49	WG1110914
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	05/14/2018 03:49	WG1110914
Vinyl acetate	U		0.00398	0.0141	1	05/14/2018 03:49	WG1110914
Vinyl chloride	U		0.000771	0.00282	1	05/14/2018 03:49	WG1110914
Xylenes, Total	U		0.00540	0.00734	1	05/14/2018 03:49	WG1110914
(S) Toluene-d8	120			80.0-120		05/14/2018 03:49	WG1110914
(S) Dibromofluoromethane	85.5			74.0-131		05/14/2018 03:49	WG1110914
(S) 4-Bromofluorobenzene	98.6			64.0-132		05/14/2018 03:49	WG1110914

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	05/16/2018 10:57	WG111637

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	UJ	0.0205	0.0374	1.37	05/14/2018 04:08	WG110914
Acrylonitrile	U	UJ	0.00284	0.0187	1.37	05/14/2018 04:08	WG110914
Benzene	0.000776	J	0.000599	0.00150	1.37	05/14/2018 04:08	WG110914
Bromobenzene	U	UJ	0.00157	0.0187	1.37	05/14/2018 04:08	WG110914
Bromodichloromethane	U		0.00118	0.00374	1.37	05/14/2018 04:08	WG110914
Bromochloromethane	U	J3	0.00169	0.00749	1.37	05/14/2018 04:08	WG110914
Bromoform	U	J0	0.00895	0.0374	1.37	05/14/2018 04:08	WG110914
Bromomethane	U		0.00554	0.0187	1.37	05/14/2018 04:08	WG110914
n-Butylbenzene	U		0.00575	0.0187	1.37	05/14/2018 04:08	WG110914
sec-Butylbenzene	U		0.00379	0.0187	1.37	05/14/2018 04:08	WG110914
tert-Butylbenzene	U		0.00232	0.00749	1.37	05/14/2018 04:08	WG110914
Carbon disulfide	U		0.00608	0.0187	1.37	05/14/2018 04:08	WG110914
Carbon tetrachloride	U		0.00162	0.00749	1.37	05/14/2018 04:08	WG110914
Chlorobenzene	U	J5	0.000858	0.00374	1.37	05/14/2018 04:08	WG110914
Chlorodibromomethane	U		0.000673	0.00374	1.37	05/14/2018 04:08	WG110914
Chloroethane	U		0.00162	0.00749	1.37	05/14/2018 04:08	WG110914
Chloroform	U		0.000621	0.00374	1.37	05/14/2018 04:08	WG110914
Chloromethane	U	J0	0.00208	0.0187	1.37	05/14/2018 04:08	WG110914
2-Chlorotoluene	U		0.00138	0.00374	1.37	05/14/2018 04:08	WG110914
4-Chlorotoluene	U		0.00169	0.00749	1.37	05/14/2018 04:08	WG110914
1,2-Dibromo-3-Chloropropane	U		0.00764	0.0374	1.37	05/14/2018 04:08	WG110914
1,2-Dibromoethane	U		0.000786	0.00374	1.37	05/14/2018 04:08	WG110914
Dibromomethane	U		0.00150	0.00749	1.37	05/14/2018 04:08	WG110914
1,2-Dichlorobenzene	U		0.00218	0.00749	1.37	05/14/2018 04:08	WG110914
1,3-Dichlorobenzene	U		0.00255	0.00749	1.37	05/14/2018 04:08	WG110914
1,4-Dichlorobenzene	U		0.00295	0.00749	1.37	05/14/2018 04:08	WG110914
Dichlorodifluoromethane	U	J5	0.00122	0.00374	1.37	05/14/2018 04:08	WG110914
1,1-Dichloroethane	U		0.000861	0.00374	1.37	05/14/2018 04:08	WG110914
1,2-Dichloroethane	U		0.000712	0.00374	1.37	05/14/2018 04:08	WG110914
1,1-Dichloroethene	U	UJ	0.000749	0.00374	1.37	05/14/2018 04:08	WG110914
cis-1,2-Dichloroethene	0.0150	J	0.00103	0.00374	1.37	05/14/2018 04:08	WG110914
trans-1,2-Dichloroethene	U	UJ	0.00214	0.00749	1.37	05/14/2018 04:08	WG110914
1,2-Dichloropropane	U		0.00190	0.00749	1.37	05/14/2018 04:08	WG110914
1,1-Dichloropropene	U		0.00105	0.00374	1.37	05/14/2018 04:08	WG110914
1,3-Dichloropropane	U	J5	0.00262	0.00749	1.37	05/14/2018 04:08	WG110914
cis-1,3-Dichloropropene	U		0.00102	0.00374	1.37	05/14/2018 04:08	WG110914
trans-1,3-Dichloropropene	U		0.00230	0.00749	1.37	05/14/2018 04:08	WG110914
trans-1,4-Dichloro-2-butene	U		0.00210	0.00749	1.37	05/14/2018 04:08	WG110914
2,2-Dichloropropane	U		0.00119	0.00374	1.37	05/14/2018 04:08	WG110914
Di-isopropyl ether	U		0.000525	0.00150	1.37	05/14/2018 04:08	WG110914
Ethylbenzene	U	J5	0.000793	0.00374	1.37	05/14/2018 04:08	WG110914
Hexachloro-1,3-butadiene	U		0.0190	0.0374	1.37	05/14/2018 04:08	WG110914
2-Hexanone	U	UJ	0.0150	0.0374	1.37	05/14/2018 04:08	WG110914
n-Hexane	0.00536	J	0.00158	0.00749	1.37	05/14/2018 04:08	WG110914
Iodomethane	U	UJ	0.00906	0.0187	1.37	05/14/2018 04:08	WG110914
Isopropylbenzene	U		0.00129	0.00374	1.37	05/14/2018 04:08	WG110914
p-Isopropyltoluene	U		0.00349	0.00749	1.37	05/14/2018 04:08	WG110914
2-Butanone (MEK)	U		0.0187	0.0374	1.37	05/14/2018 04:08	WG110914
Methylene Chloride	U		0.00995	0.0374	1.37	05/14/2018 04:08	WG110914
4-Methyl-2-pentanone (MIBK)	U	UJ	0.0150	0.0374	1.37	05/14/2018 04:08	WG110914

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





Collected date/time: 05/11/18 08:00

L993557

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	0.000771	J	0.000442	0.00150	1.37	05/14/2018 04:08	WG1110914
Naphthalene	U	UJ	0.00467	0.0187	1.37	05/14/2018 04:08	WG1110914
n-Propylbenzene	U	J4	0.00177	0.00749	1.37	05/14/2018 04:08	WG1110914
Styrene	U	J5	0.00409	0.0187	1.37	05/14/2018 04:08	WG1110914
1,1,1,2-Tetrachloroethane	U		0.000749	0.00374	1.37	05/14/2018 04:08	WG1110914
1,1,2,2-Tetrachloroethane	U		0.000584	0.00374	1.37	05/14/2018 04:08	WG1110914
1,1,2-Trichlorotrifluoroethane	U	UJ	0.00101	0.00374	1.37	05/14/2018 04:08	WG1110914
Tetrachloroethene	0.0144	J	0.00105	0.00374	1.37	05/14/2018 04:08	WG1110914
Toluene	0.00231	J	0.00187	0.00749	1.37	05/14/2018 04:08	WG1110914
1,2,3-Trichlorobenzene	U	UJ	0.000936	0.00374	1.37	05/14/2018 04:08	WG1110914
1,2,4-Trichlorobenzene	U		0.00721	0.0187	1.37	05/14/2018 04:08	WG1110914
1,1,1-Trichloroethane	U		0.000412	0.00374	1.37	05/14/2018 04:08	WG1110914
1,1,2-Trichloroethane	U	J5	0.00132	0.00374	1.37	05/14/2018 04:08	WG1110914
Trichloroethene	0.00359	J	0.000599	0.00150	1.37	05/14/2018 04:08	WG1110914
Trichlorofluoromethane	U	UJ	0.000749	0.00374	1.37	05/14/2018 04:08	WG1110914
1,2,3-Trichloropropane	U		0.00764	0.0187	1.37	05/14/2018 04:08	WG1110914
1,2,4-Trimethylbenzene	U		0.00174	0.00749	1.37	05/14/2018 04:08	WG1110914
1,2,3-Trimethylbenzene	U	J5	0.00173	0.00749	1.37	05/14/2018 04:08	WG1110914
1,3,5-Trimethylbenzene	U		0.00162	0.00749	1.37	05/14/2018 04:08	WG1110914
Vinyl acetate	U		0.00527	0.0187	1.37	05/14/2018 04:08	WG1110914
Vinyl chloride	U	J6	0.00102	0.00374	1.37	05/14/2018 04:08	WG1110914
Xylenes, Total	U	UJ	0.00716	0.00973	1.37	05/14/2018 04:08	WG1110914
(S) Toluene-d8	120			80.0-120		05/14/2018 04:08	WG1110914
(S) Dibromofluoromethane	85.8			74.0-131		05/14/2018 04:08	WG1110914
(S) 4-Bromofluorobenzene	99.2			64.0-132		05/14/2018 04:08	WG1110914

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
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- 9 Sc

JC 6/14/18



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	05/16/2018 12:31	WG111989
Acrylonitrile	U		0.873	5.00	1	05/16/2018 12:31	WG111989
Benzene	U		0.0896	0.500	1	05/16/2018 12:31	WG111989
Bromobenzene	U		0.133	0.500	1	05/16/2018 12:31	WG111989
Bromodichloromethane	U		0.0800	0.500	1	05/16/2018 12:31	WG111989
Bromochloromethane	U		0.145	0.500	1	05/16/2018 12:31	WG111989
Bromoform	U		0.186	0.500	1	05/16/2018 12:31	WG111989
Bromomethane	U		0.157	2.50	1	05/16/2018 12:31	WG111989
n-Butylbenzene	U		0.143	0.500	1	05/16/2018 12:31	WG111989
sec-Butylbenzene	U		0.134	0.500	1	05/16/2018 12:31	WG111989
tert-Butylbenzene	U		0.183	0.500	1	05/16/2018 12:31	WG111989
Carbon disulfide	U		0.101	0.500	1	05/16/2018 12:31	WG111989
Carbon tetrachloride	U		0.159	0.500	1	05/16/2018 12:31	WG111989
Chlorobenzene	U		0.140	0.500	1	05/16/2018 12:31	WG111989
Chlorodibromomethane	U		0.128	0.500	1	05/16/2018 12:31	WG111989
Chloroethane	U	UJ JO	0.141	2.50	1	05/16/2018 12:31	WG111989
Chloroform	U		0.0860	0.500	1	05/16/2018 12:31	WG111989
Chloromethane	U		0.153	1.25	1	05/16/2018 12:31	WG111989
2-Chlorotoluene	U		0.111	0.500	1	05/16/2018 12:31	WG111989
4-Chlorotoluene	U		0.0972	0.500	1	05/16/2018 12:31	WG111989
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/16/2018 12:31	WG111989
1,2-Dibromoethane	U		0.193	0.500	1	05/16/2018 12:31	WG111989
Dibromomethane	U		0.117	0.500	1	05/16/2018 12:31	WG111989
1,2-Dichlorobenzene	U		0.101	0.500	1	05/16/2018 12:31	WG111989
1,3-Dichlorobenzene	U		0.130	0.500	1	05/16/2018 12:31	WG111989
1,4-Dichlorobenzene	U		0.121	0.500	1	05/16/2018 12:31	WG111989
Dichlorodifluoromethane	U		0.127	2.50	1	05/16/2018 12:31	WG111989
1,1-Dichloroethane	U		0.114	0.500	1	05/16/2018 12:31	WG111989
1,2-Dichloroethane	U		0.108	0.500	1	05/16/2018 12:31	WG111989
1,1-Dichloroethene	U		0.188	0.500	1	05/16/2018 12:31	WG111989
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/16/2018 12:31	WG111989
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/16/2018 12:31	WG111989
1,2-Dichloropropane	U		0.190	0.500	1	05/16/2018 12:31	WG111989
1,1-Dichloropropene	U		0.128	0.500	1	05/16/2018 12:31	WG111989
1,3-Dichloropropane	U		0.147	1.00	1	05/16/2018 12:31	WG111989
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/16/2018 12:31	WG111989
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/16/2018 12:31	WG111989
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/16/2018 12:31	WG111989
2,2-Dichloropropane	U		0.0929	0.500	1	05/16/2018 12:31	WG111989
Di-isopropyl ether	U		0.0924	0.500	1	05/16/2018 12:31	WG111989
Ethylbenzene	U		0.158	0.500	1	05/16/2018 12:31	WG111989
Hexachloro-1,3-butadiene	U	UJ JO	0.157	1.00	1	05/16/2018 12:31	WG111989
2-Hexanone	U		0.757	5.00	1	05/16/2018 12:31	WG111989
n-Hexane	U		0.305	5.00	1	05/16/2018 12:31	WG111989
Iodomethane	U		0.377	10.0	1	05/16/2018 12:31	WG111989
Isopropylbenzene	U		0.126	0.500	1	05/16/2018 12:31	WG111989
p-Isopropyltoluene	U		0.138	0.500	1	05/16/2018 12:31	WG111989
2-Butanone (MEK)	U		1.28	5.00	1	05/16/2018 12:31	WG111989
Methylene Chloride	U		1.07	2.50	1	05/16/2018 12:31	WG111989
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/16/2018 12:31	WG111989
Methyl tert-butyl ether	U		0.102	0.500	1	05/16/2018 12:31	WG111989
Naphthalene	U		0.174	2.50	1	05/16/2018 12:31	WG111989
n-Propylbenzene	U		0.162	0.500	1	05/16/2018 12:31	WG111989
Styrene	U		0.117	0.500	1	05/16/2018 12:31	WG111989
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/16/2018 12:31	WG111989
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/16/2018 12:31	WG111989

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

JC 6/14/18



Collected date/time: 05/11/18 00:00

L993557

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	05/16/2018 12:31	WG1111989
Tetrachloroethene	U		0.199	0.500	1	05/16/2018 12:31	WG1111989
Toluene	U		0.412	0.500	1	05/16/2018 12:31	WG1111989
1,2,3-Trichlorobenzene	U	UJ <u>JO</u>	0.164	0.500	1	05/16/2018 12:31	WG1111989
1,2,4-Trichlorobenzene	U	UJ <u>JO</u>	0.355	0.500	1	05/16/2018 12:31	WG1111989
1,1,1-Trichloroethane	U		0.0940	0.500	1	05/16/2018 12:31	WG1111989
1,1,2-Trichloroethane	U		0.186	0.500	1	05/16/2018 12:31	WG1111989
Trichloroethene	U		0.153	0.500	1	05/16/2018 12:31	WG1111989
Trichlorofluoromethane	U		0.130	2.50	1	05/16/2018 12:31	WG1111989
1,2,3-Trichloropropane	U		0.247	2.50	1	05/16/2018 12:31	WG1111989
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/16/2018 12:31	WG1111989
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/16/2018 12:31	WG1111989
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/16/2018 12:31	WG1111989
Vinyl acetate	U	<u>J3</u>	0.645	5.00	1	05/16/2018 12:31	WG1111989
Vinyl chloride	U		0.118	0.500	1	05/16/2018 12:31	WG1111989
Xylenes, Total	U		0.316	1.50	1	05/16/2018 12:31	WG1111989
(S) Toluene-d8	94.3			80.0-120		05/16/2018 12:31	WG1111989
(S) Dibromofluoromethane	113			76.0-123		05/16/2018 12:31	WG1111989
(S) 4-Bromofluorobenzene	113			80.0-120		05/16/2018 12:31	WG1111989

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

JC 6/14/18

PES Environmental, Inc.- WA

Sample Delivery Group: L993885
Samples Received: 05/15/2018
Project Number: 1413.001.05.601
Description: American Linen
Site: 1413.001.05.601
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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1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY



MW-161-11 L993885-01 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 09:45 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112648	1	05/17/18 13:43	05/17/18 13:51	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 00:16	LRL

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW-161-21 L993885-02 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 10:00 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112648	1	05/17/18 13:43	05/17/18 13:51	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 00:36	LRL

MW-161-31 L993885-03 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 10:20 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112648	1	05/17/18 13:43	05/17/18 13:51	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 00:56	LRL

MW-161-40 L993885-04 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 10:55 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 01:15	LRL

MW-161-50 L993885-05 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 11:25 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 01:35	LRL

MW-161-60 L993885-06 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 11:40 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 01:55	LRL

MW-161-70 L993885-07 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 13:00 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 02:15	LRL

SAMPLE SUMMARY



MW-161-80 L993885-08 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 13:30 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1.02	05/15/18 20:24	05/16/18 02:35	LRL

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW-161-90 L993885-09 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 14:25 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 02:55	LRL

B-927-30 L993885-10 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 08:00 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1.1	05/15/18 20:24	05/16/18 03:14	LRL

MW-161-100 L993885-11 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 14:35 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 03:34	LRL

MW-161-110 L993885-12 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 14:50 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 03:54	LRL

MW-161-120 L993885-13 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 15:10 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112649	1	05/17/18 15:35	05/17/18 15:45	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 04:13	LRL

MW-161-130 L993885-14 Solid

Collected by
Karsten Springstead Collected date/time
05/14/18 15:45 Received date/time
05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112650	1	05/17/18 15:26	05/17/18 15:33	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111817	1	05/15/18 20:24	05/16/18 04:33	LRL

SAMPLE SUMMARY



TRIP BLANK-051418 L993885-15 GW

Collected by Karsten Springstead
Collected date/time 05/14/18 00:00
Received date/time 05/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1111989	1	05/16/18 12:52	05/16/18 12:52	ACG

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, unless qualified or notated within the report. Where applicable, 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.

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	Batch
	%			date / time	
Total Solids	81.3		1	05/17/2018 13:51	WG1112648

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0307	1	05/16/2018 00:16	WG1111817
Acrylonitrile	ND		0.0154	1	05/16/2018 00:16	WG1111817
Benzene	ND		0.00123	1	05/16/2018 00:16	WG1111817
Bromobenzene	ND		0.0154	1	05/16/2018 00:16	WG1111817
Bromodichloromethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
Bromoform	ND		0.0307	1	05/16/2018 00:16	WG1111817
Bromomethane	ND		0.0154	1	05/16/2018 00:16	WG1111817
n-Butylbenzene	ND		0.0154	1	05/16/2018 00:16	WG1111817
sec-Butylbenzene	ND		0.0154	1	05/16/2018 00:16	WG1111817
tert-Butylbenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
Carbon tetrachloride	ND		0.00615	1	05/16/2018 00:16	WG1111817
Chlorobenzene	ND		0.00307	1	05/16/2018 00:16	WG1111817
Chlorodibromomethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
Chloroethane	ND		0.00615	1	05/16/2018 00:16	WG1111817
Chloroform	ND		0.00307	1	05/16/2018 00:16	WG1111817
Chloromethane	ND		0.0154	1	05/16/2018 00:16	WG1111817
2-Chlorotoluene	ND		0.00307	1	05/16/2018 00:16	WG1111817
4-Chlorotoluene	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0307	1	05/16/2018 00:16	WG1111817
1,2-Dibromoethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
Dibromomethane	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,2-Dichlorobenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,3-Dichlorobenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,4-Dichlorobenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
Dichlorodifluoromethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,1-Dichloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,2-Dichloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,1-Dichloroethene	ND		0.00307	1	05/16/2018 00:16	WG1111817
cis-1,2-Dichloroethene	0.00563		0.00307	1	05/16/2018 00:16	WG1111817
trans-1,2-Dichloroethene	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,2-Dichloropropane	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,1-Dichloropropene	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,3-Dichloropropane	ND	J4	0.00615	1	05/16/2018 00:16	WG1111817
cis-1,3-Dichloropropene	ND		0.00307	1	05/16/2018 00:16	WG1111817
trans-1,3-Dichloropropene	ND		0.00615	1	05/16/2018 00:16	WG1111817
2,2-Dichloropropane	ND		0.00307	1	05/16/2018 00:16	WG1111817
Di-isopropyl ether	ND		0.00123	1	05/16/2018 00:16	WG1111817
Ethylbenzene	ND		0.00307	1	05/16/2018 00:16	WG1111817
Hexachloro-1,3-butadiene	ND		0.0307	1	05/16/2018 00:16	WG1111817
Isopropylbenzene	ND		0.00307	1	05/16/2018 00:16	WG1111817
p-Isopropyltoluene	ND		0.00615	1	05/16/2018 00:16	WG1111817
2-Butanone (MEK)	ND		0.0307	1	05/16/2018 00:16	WG1111817
Methylene Chloride	ND		0.0307	1	05/16/2018 00:16	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0307	1	05/16/2018 00:16	WG1111817
Methyl tert-butyl ether	ND	JO J4	0.00123	1	05/16/2018 00:16	WG1111817
Naphthalene	ND		0.0154	1	05/16/2018 00:16	WG1111817
n-Propylbenzene	ND	J4	0.00615	1	05/16/2018 00:16	WG1111817
Styrene	ND		0.0154	1	05/16/2018 00:16	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
Tetrachloroethene	0.00523		0.00307	1	05/16/2018 00:16	WG1111817
Toluene	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,2,3-Trichlorobenzene	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,2,4-Trichlorobenzene	ND		0.0154	1	05/16/2018 00:16	WG1111817
1,1,1-Trichloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,1,2-Trichloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
Trichloroethene	ND		0.00123	1	05/16/2018 00:16	WG1111817
Trichlorofluoromethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,2,3-Trichloropropane	ND		0.0154	1	05/16/2018 00:16	WG1111817
1,2,4-Trimethylbenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,2,3-Trimethylbenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
Vinyl chloride	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,3,5-Trimethylbenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
Xylenes, Total	ND		0.00799	1	05/16/2018 00:16	WG1111817
(S) Toluene-d8	110		80.0-120		05/16/2018 00:16	WG1111817
(S) Dibromofluoromethane	95.9		74.0-131		05/16/2018 00:16	WG1111817
(S) 4-Bromofluorobenzene	100		64.0-132		05/16/2018 00:16	WG1111817

- 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	96.2		1	05/17/2018 13:51	WG1112648

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0260	1	05/16/2018 00:36	WG1111817
Acrylonitrile	ND		0.0130	1	05/16/2018 00:36	WG1111817
Benzene	ND		0.00104	1	05/16/2018 00:36	WG1111817
Bromobenzene	ND		0.0130	1	05/16/2018 00:36	WG1111817
Bromodichloromethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
Bromoform	ND		0.0260	1	05/16/2018 00:36	WG1111817
Bromomethane	ND		0.0130	1	05/16/2018 00:36	WG1111817
n-Butylbenzene	ND		0.0130	1	05/16/2018 00:36	WG1111817
sec-Butylbenzene	ND		0.0130	1	05/16/2018 00:36	WG1111817
tert-Butylbenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
Carbon tetrachloride	ND		0.00520	1	05/16/2018 00:36	WG1111817
Chlorobenzene	ND		0.00260	1	05/16/2018 00:36	WG1111817
Chlorodibromomethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
Chloroethane	ND		0.00520	1	05/16/2018 00:36	WG1111817
Chloroform	ND		0.00260	1	05/16/2018 00:36	WG1111817
Chloromethane	ND		0.0130	1	05/16/2018 00:36	WG1111817
2-Chlorotoluene	ND		0.00260	1	05/16/2018 00:36	WG1111817
4-Chlorotoluene	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0260	1	05/16/2018 00:36	WG1111817
1,2-Dibromoethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
Dibromomethane	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,2-Dichlorobenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,3-Dichlorobenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,4-Dichlorobenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
Dichlorodifluoromethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,1-Dichloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,2-Dichloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,1-Dichloroethene	ND		0.00260	1	05/16/2018 00:36	WG1111817
cis-1,2-Dichloroethene	0.00364		0.00260	1	05/16/2018 00:36	WG1111817
trans-1,2-Dichloroethene	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,2-Dichloropropane	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,1-Dichloropropene	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00520	1	05/16/2018 00:36	WG1111817
cis-1,3-Dichloropropene	ND		0.00260	1	05/16/2018 00:36	WG1111817
trans-1,3-Dichloropropene	ND		0.00520	1	05/16/2018 00:36	WG1111817
2,2-Dichloropropane	ND		0.00260	1	05/16/2018 00:36	WG1111817
Di-isopropyl ether	ND		0.00104	1	05/16/2018 00:36	WG1111817
Ethylbenzene	ND		0.00260	1	05/16/2018 00:36	WG1111817
Hexachloro-1,3-butadiene	ND		0.0260	1	05/16/2018 00:36	WG1111817
Isopropylbenzene	ND		0.00260	1	05/16/2018 00:36	WG1111817
p-Isopropyltoluene	ND		0.00520	1	05/16/2018 00:36	WG1111817
2-Butanone (MEK)	ND		0.0260	1	05/16/2018 00:36	WG1111817
Methylene Chloride	ND		0.0260	1	05/16/2018 00:36	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0260	1	05/16/2018 00:36	WG1111817
Methyl tert-butyl ether	ND	<u>JO J4</u>	0.00104	1	05/16/2018 00:36	WG1111817
Naphthalene	ND		0.0130	1	05/16/2018 00:36	WG1111817
n-Propylbenzene	ND	<u>J4</u>	0.00520	1	05/16/2018 00:36	WG1111817
Styrene	ND		0.0130	1	05/16/2018 00:36	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
Tetrachloroethene	ND		0.00260	1	05/16/2018 00:36	WG1111817
Toluene	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,2,3-Trichlorobenzene	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,2,4-Trichlorobenzene	ND		0.0130	1	05/16/2018 00:36	WG1111817
1,1,1-Trichloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,1,2-Trichloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
Trichloroethene	ND		0.00104	1	05/16/2018 00:36	WG1111817
Trichlorofluoromethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,2,3-Trichloropropane	ND		0.0130	1	05/16/2018 00:36	WG1111817
1,2,4-Trimethylbenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,2,3-Trimethylbenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
Vinyl chloride	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,3,5-Trimethylbenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
Xylenes, Total	ND		0.00676	1	05/16/2018 00:36	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 00:36	WG1111817
(S) Dibromofluoromethane	96.2		74.0-131		05/16/2018 00:36	WG1111817
(S) 4-Bromofluorobenzene	100		64.0-132		05/16/2018 00:36	WG1111817

- 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	87.4		1	05/17/2018 13:51	WG1112648

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0286	1	05/16/2018 00:56	WG1111817
Acrylonitrile	ND		0.0143	1	05/16/2018 00:56	WG1111817
Benzene	ND		0.00114	1	05/16/2018 00:56	WG1111817
Bromobenzene	ND		0.0143	1	05/16/2018 00:56	WG1111817
Bromodichloromethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Bromoform	ND		0.0286	1	05/16/2018 00:56	WG1111817
Bromomethane	ND		0.0143	1	05/16/2018 00:56	WG1111817
n-Butylbenzene	ND		0.0143	1	05/16/2018 00:56	WG1111817
sec-Butylbenzene	ND		0.0143	1	05/16/2018 00:56	WG1111817
tert-Butylbenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
Carbon tetrachloride	ND		0.00572	1	05/16/2018 00:56	WG1111817
Chlorobenzene	ND		0.00286	1	05/16/2018 00:56	WG1111817
Chlorodibromomethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Chloroethane	ND		0.00572	1	05/16/2018 00:56	WG1111817
Chloroform	ND		0.00286	1	05/16/2018 00:56	WG1111817
Chloromethane	ND		0.0143	1	05/16/2018 00:56	WG1111817
2-Chlorotoluene	ND		0.00286	1	05/16/2018 00:56	WG1111817
4-Chlorotoluene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0286	1	05/16/2018 00:56	WG1111817
1,2-Dibromoethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Dibromomethane	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2-Dichlorobenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,3-Dichlorobenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,4-Dichlorobenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
Dichlorodifluoromethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,1-Dichloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,2-Dichloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,1-Dichloroethene	ND		0.00286	1	05/16/2018 00:56	WG1111817
cis-1,2-Dichloroethene	0.00387		0.00286	1	05/16/2018 00:56	WG1111817
trans-1,2-Dichloroethene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2-Dichloropropane	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,1-Dichloropropene	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,3-Dichloropropane	ND	J4	0.00572	1	05/16/2018 00:56	WG1111817
cis-1,3-Dichloropropene	ND		0.00286	1	05/16/2018 00:56	WG1111817
trans-1,3-Dichloropropene	ND		0.00572	1	05/16/2018 00:56	WG1111817
2,2-Dichloropropane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Di-isopropyl ether	ND		0.00114	1	05/16/2018 00:56	WG1111817
Ethylbenzene	ND		0.00286	1	05/16/2018 00:56	WG1111817
Hexachloro-1,3-butadiene	ND		0.0286	1	05/16/2018 00:56	WG1111817
Isopropylbenzene	ND		0.00286	1	05/16/2018 00:56	WG1111817
p-Isopropyltoluene	ND		0.00572	1	05/16/2018 00:56	WG1111817
2-Butanone (MEK)	ND		0.0286	1	05/16/2018 00:56	WG1111817
Methylene Chloride	ND		0.0286	1	05/16/2018 00:56	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0286	1	05/16/2018 00:56	WG1111817
Methyl tert-butyl ether	ND	JO J4	0.00114	1	05/16/2018 00:56	WG1111817
Naphthalene	ND		0.0143	1	05/16/2018 00:56	WG1111817
n-Propylbenzene	ND	J4	0.00572	1	05/16/2018 00:56	WG1111817
Styrene	ND		0.0143	1	05/16/2018 00:56	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817

- 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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Tetrachloroethene	0.0159		0.00286	1	05/16/2018 00:56	WG1111817
Toluene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2,3-Trichlorobenzene	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,2,4-Trichlorobenzene	ND		0.0143	1	05/16/2018 00:56	WG1111817
1,1,1-Trichloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,1,2-Trichloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Trichloroethene	0.00196		0.00114	1	05/16/2018 00:56	WG1111817
Trichlorofluoromethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,2,3-Trichloropropane	ND		0.0143	1	05/16/2018 00:56	WG1111817
1,2,4-Trimethylbenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2,3-Trimethylbenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
Vinyl chloride	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,3,5-Trimethylbenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
Xylenes, Total	ND		0.00744	1	05/16/2018 00:56	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 00:56	WG1111817
(S) Dibromofluoromethane	95.3		74.0-131		05/16/2018 00:56	WG1111817
(S) 4-Bromofluorobenzene	100		64.0-132		05/16/2018 00:56	WG1111817

- 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	90.6		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0276	1	05/16/2018 01:15	WG1111817
Acrylonitrile	ND		0.0138	1	05/16/2018 01:15	WG1111817
Benzene	ND		0.00110	1	05/16/2018 01:15	WG1111817
Bromobenzene	ND		0.0138	1	05/16/2018 01:15	WG1111817
Bromodichloromethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Bromoform	ND		0.0276	1	05/16/2018 01:15	WG1111817
Bromomethane	ND		0.0138	1	05/16/2018 01:15	WG1111817
n-Butylbenzene	ND		0.0138	1	05/16/2018 01:15	WG1111817
sec-Butylbenzene	ND		0.0138	1	05/16/2018 01:15	WG1111817
tert-Butylbenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
Carbon tetrachloride	ND		0.00552	1	05/16/2018 01:15	WG1111817
Chlorobenzene	ND		0.00276	1	05/16/2018 01:15	WG1111817
Chlorodibromomethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Chloroethane	ND		0.00552	1	05/16/2018 01:15	WG1111817
Chloroform	ND		0.00276	1	05/16/2018 01:15	WG1111817
Chloromethane	ND		0.0138	1	05/16/2018 01:15	WG1111817
2-Chlorotoluene	ND		0.00276	1	05/16/2018 01:15	WG1111817
4-Chlorotoluene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0276	1	05/16/2018 01:15	WG1111817
1,2-Dibromoethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Dibromomethane	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2-Dichlorobenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,3-Dichlorobenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,4-Dichlorobenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
Dichlorodifluoromethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,1-Dichloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,2-Dichloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,1-Dichloroethene	ND		0.00276	1	05/16/2018 01:15	WG1111817
cis-1,2-Dichloroethene	0.376		0.00276	1	05/16/2018 01:15	WG1111817
trans-1,2-Dichloroethene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2-Dichloropropane	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,1-Dichloropropene	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,3-Dichloropropane	ND	J4	0.00552	1	05/16/2018 01:15	WG1111817
cis-1,3-Dichloropropene	ND		0.00276	1	05/16/2018 01:15	WG1111817
trans-1,3-Dichloropropene	ND		0.00552	1	05/16/2018 01:15	WG1111817
2,2-Dichloropropane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Di-isopropyl ether	ND		0.00110	1	05/16/2018 01:15	WG1111817
Ethylbenzene	ND		0.00276	1	05/16/2018 01:15	WG1111817
Hexachloro-1,3-butadiene	ND		0.0276	1	05/16/2018 01:15	WG1111817
Isopropylbenzene	ND		0.00276	1	05/16/2018 01:15	WG1111817
p-Isopropyltoluene	ND		0.00552	1	05/16/2018 01:15	WG1111817
2-Butanone (MEK)	ND		0.0276	1	05/16/2018 01:15	WG1111817
Methylene Chloride	ND		0.0276	1	05/16/2018 01:15	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0276	1	05/16/2018 01:15	WG1111817
Methyl tert-butyl ether	ND	JO J4	0.00110	1	05/16/2018 01:15	WG1111817
Naphthalene	ND		0.0138	1	05/16/2018 01:15	WG1111817
n-Propylbenzene	ND	J4	0.00552	1	05/16/2018 01:15	WG1111817
Styrene	ND		0.0138	1	05/16/2018 01:15	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817

- 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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Tetrachloroethene	0.00438		0.00276	1	05/16/2018 01:15	WG1111817
Toluene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2,3-Trichlorobenzene	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,2,4-Trichlorobenzene	ND		0.0138	1	05/16/2018 01:15	WG1111817
1,1,1-Trichloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,1,2-Trichloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Trichloroethene	0.00132		0.00110	1	05/16/2018 01:15	WG1111817
Trichlorofluoromethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,2,3-Trichloropropane	ND		0.0138	1	05/16/2018 01:15	WG1111817
1,2,4-Trimethylbenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2,3-Trimethylbenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
Vinyl chloride	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,3,5-Trimethylbenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
Xylenes, Total	ND		0.00717	1	05/16/2018 01:15	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 01:15	WG1111817
(S) Dibromofluoromethane	95.0		74.0-131		05/16/2018 01:15	WG1111817
(S) 4-Bromofluorobenzene	97.2		64.0-132		05/16/2018 01:15	WG1111817

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	89.6		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0279	1	05/16/2018 01:35	WG1111817
Acrylonitrile	ND		0.0139	1	05/16/2018 01:35	WG1111817
Benzene	ND		0.00112	1	05/16/2018 01:35	WG1111817
Bromobenzene	ND		0.0139	1	05/16/2018 01:35	WG1111817
Bromodichloromethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Bromoform	ND		0.0279	1	05/16/2018 01:35	WG1111817
Bromomethane	ND		0.0139	1	05/16/2018 01:35	WG1111817
n-Butylbenzene	ND		0.0139	1	05/16/2018 01:35	WG1111817
sec-Butylbenzene	ND		0.0139	1	05/16/2018 01:35	WG1111817
tert-Butylbenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
Carbon tetrachloride	ND		0.00558	1	05/16/2018 01:35	WG1111817
Chlorobenzene	ND		0.00279	1	05/16/2018 01:35	WG1111817
Chlorodibromomethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Chloroethane	ND		0.00558	1	05/16/2018 01:35	WG1111817
Chloroform	ND		0.00279	1	05/16/2018 01:35	WG1111817
Chloromethane	ND		0.0139	1	05/16/2018 01:35	WG1111817
2-Chlorotoluene	ND		0.00279	1	05/16/2018 01:35	WG1111817
4-Chlorotoluene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0279	1	05/16/2018 01:35	WG1111817
1,2-Dibromoethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Dibromomethane	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2-Dichlorobenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,3-Dichlorobenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,4-Dichlorobenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
Dichlorodifluoromethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,1-Dichloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,2-Dichloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,1-Dichloroethene	ND		0.00279	1	05/16/2018 01:35	WG1111817
cis-1,2-Dichloroethene	0.0356		0.00279	1	05/16/2018 01:35	WG1111817
trans-1,2-Dichloroethene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2-Dichloropropane	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,1-Dichloropropene	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,3-Dichloropropane	ND	J4	0.00558	1	05/16/2018 01:35	WG1111817
cis-1,3-Dichloropropene	ND		0.00279	1	05/16/2018 01:35	WG1111817
trans-1,3-Dichloropropene	ND		0.00558	1	05/16/2018 01:35	WG1111817
2,2-Dichloropropane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Di-isopropyl ether	ND		0.00112	1	05/16/2018 01:35	WG1111817
Ethylbenzene	ND		0.00279	1	05/16/2018 01:35	WG1111817
Hexachloro-1,3-butadiene	ND		0.0279	1	05/16/2018 01:35	WG1111817
Isopropylbenzene	ND		0.00279	1	05/16/2018 01:35	WG1111817
p-Isopropyltoluene	ND		0.00558	1	05/16/2018 01:35	WG1111817
2-Butanone (MEK)	ND		0.0279	1	05/16/2018 01:35	WG1111817
Methylene Chloride	ND		0.0279	1	05/16/2018 01:35	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0279	1	05/16/2018 01:35	WG1111817
Methyl tert-butyl ether	ND	JO J4	0.00112	1	05/16/2018 01:35	WG1111817
Naphthalene	ND		0.0139	1	05/16/2018 01:35	WG1111817
n-Propylbenzene	ND	J4	0.00558	1	05/16/2018 01:35	WG1111817
Styrene	ND		0.0139	1	05/16/2018 01:35	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Tetrachloroethene	0.0173		0.00279	1	05/16/2018 01:35	WG1111817
Toluene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2,3-Trichlorobenzene	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,2,4-Trichlorobenzene	ND		0.0139	1	05/16/2018 01:35	WG1111817
1,1,1-Trichloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,1,2-Trichloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Trichloroethene	0.00956		0.00112	1	05/16/2018 01:35	WG1111817
Trichlorofluoromethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,2,3-Trichloropropane	ND		0.0139	1	05/16/2018 01:35	WG1111817
1,2,4-Trimethylbenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2,3-Trimethylbenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
Vinyl chloride	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,3,5-Trimethylbenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
Xylenes, Total	ND		0.00725	1	05/16/2018 01:35	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 01:35	WG1111817
(S) Dibromofluoromethane	95.1		74.0-131		05/16/2018 01:35	WG1111817
(S) 4-Bromofluorobenzene	99.7		64.0-132		05/16/2018 01:35	WG1111817

- 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	87.6		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0286	1	05/16/2018 01:55	WG1111817
Acrylonitrile	ND		0.0143	1	05/16/2018 01:55	WG1111817
Benzene	ND		0.00114	1	05/16/2018 01:55	WG1111817
Bromobenzene	ND		0.0143	1	05/16/2018 01:55	WG1111817
Bromodichloromethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
Bromoform	ND		0.0286	1	05/16/2018 01:55	WG1111817
Bromomethane	ND		0.0143	1	05/16/2018 01:55	WG1111817
n-Butylbenzene	ND		0.0143	1	05/16/2018 01:55	WG1111817
sec-Butylbenzene	ND		0.0143	1	05/16/2018 01:55	WG1111817
tert-Butylbenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
Carbon tetrachloride	ND		0.00571	1	05/16/2018 01:55	WG1111817
Chlorobenzene	ND		0.00286	1	05/16/2018 01:55	WG1111817
Chlorodibromomethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
Chloroethane	ND		0.00571	1	05/16/2018 01:55	WG1111817
Chloroform	ND		0.00286	1	05/16/2018 01:55	WG1111817
Chloromethane	ND		0.0143	1	05/16/2018 01:55	WG1111817
2-Chlorotoluene	ND		0.00286	1	05/16/2018 01:55	WG1111817
4-Chlorotoluene	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0286	1	05/16/2018 01:55	WG1111817
1,2-Dibromoethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
Dibromomethane	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,2-Dichlorobenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,3-Dichlorobenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,4-Dichlorobenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
Dichlorodifluoromethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,1-Dichloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,2-Dichloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,1-Dichloroethene	ND		0.00286	1	05/16/2018 01:55	WG1111817
cis-1,2-Dichloroethene	0.0316		0.00286	1	05/16/2018 01:55	WG1111817
trans-1,2-Dichloroethene	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,2-Dichloropropane	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,1-Dichloropropene	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,3-Dichloropropane	ND	J4	0.00571	1	05/16/2018 01:55	WG1111817
cis-1,3-Dichloropropene	ND		0.00286	1	05/16/2018 01:55	WG1111817
trans-1,3-Dichloropropene	ND		0.00571	1	05/16/2018 01:55	WG1111817
2,2-Dichloropropane	ND		0.00286	1	05/16/2018 01:55	WG1111817
Di-isopropyl ether	ND		0.00114	1	05/16/2018 01:55	WG1111817
Ethylbenzene	ND		0.00286	1	05/16/2018 01:55	WG1111817
Hexachloro-1,3-butadiene	ND		0.0286	1	05/16/2018 01:55	WG1111817
Isopropylbenzene	ND		0.00286	1	05/16/2018 01:55	WG1111817
p-Isopropyltoluene	ND		0.00571	1	05/16/2018 01:55	WG1111817
2-Butanone (MEK)	ND		0.0286	1	05/16/2018 01:55	WG1111817
Methylene Chloride	ND		0.0286	1	05/16/2018 01:55	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0286	1	05/16/2018 01:55	WG1111817
Methyl tert-butyl ether	ND	JO J4	0.00114	1	05/16/2018 01:55	WG1111817
Naphthalene	ND		0.0143	1	05/16/2018 01:55	WG1111817
n-Propylbenzene	ND	J4	0.00571	1	05/16/2018 01:55	WG1111817
Styrene	ND		0.0143	1	05/16/2018 01:55	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
Tetrachloroethene	0.0356		0.00286	1	05/16/2018 01:55	WG1111817
Toluene	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,2,3-Trichlorobenzene	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,2,4-Trichlorobenzene	ND		0.0143	1	05/16/2018 01:55	WG1111817
1,1,1-Trichloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,1,2-Trichloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
Trichloroethene	0.00328		0.00114	1	05/16/2018 01:55	WG1111817
Trichlorofluoromethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,2,3-Trichloropropane	ND		0.0143	1	05/16/2018 01:55	WG1111817
1,2,4-Trimethylbenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,2,3-Trimethylbenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
Vinyl chloride	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,3,5-Trimethylbenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
Xylenes, Total	ND		0.00742	1	05/16/2018 01:55	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 01:55	WG1111817
(S) Dibromofluoromethane	94.7		74.0-131		05/16/2018 01:55	WG1111817
(S) 4-Bromofluorobenzene	101		64.0-132		05/16/2018 01:55	WG1111817

- 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	89.5		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0279	1	05/16/2018 02:15	WG1111817
Acrylonitrile	ND		0.0140	1	05/16/2018 02:15	WG1111817
Benzene	ND		0.00112	1	05/16/2018 02:15	WG1111817
Bromobenzene	ND		0.0140	1	05/16/2018 02:15	WG1111817
Bromodichloromethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
Bromoform	ND		0.0279	1	05/16/2018 02:15	WG1111817
Bromomethane	ND		0.0140	1	05/16/2018 02:15	WG1111817
n-Butylbenzene	ND		0.0140	1	05/16/2018 02:15	WG1111817
sec-Butylbenzene	ND		0.0140	1	05/16/2018 02:15	WG1111817
tert-Butylbenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
Carbon tetrachloride	ND		0.00558	1	05/16/2018 02:15	WG1111817
Chlorobenzene	ND		0.00279	1	05/16/2018 02:15	WG1111817
Chlorodibromomethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
Chloroethane	ND		0.00558	1	05/16/2018 02:15	WG1111817
Chloroform	ND		0.00279	1	05/16/2018 02:15	WG1111817
Chloromethane	ND		0.0140	1	05/16/2018 02:15	WG1111817
2-Chlorotoluene	ND		0.00279	1	05/16/2018 02:15	WG1111817
4-Chlorotoluene	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0279	1	05/16/2018 02:15	WG1111817
1,2-Dibromoethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
Dibromomethane	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,2-Dichlorobenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,3-Dichlorobenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,4-Dichlorobenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
Dichlorodifluoromethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,1-Dichloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,2-Dichloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,1-Dichloroethene	ND		0.00279	1	05/16/2018 02:15	WG1111817
cis-1,2-Dichloroethene	ND		0.00279	1	05/16/2018 02:15	WG1111817
trans-1,2-Dichloroethene	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,2-Dichloropropane	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,1-Dichloropropene	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,3-Dichloropropane	ND	J4	0.00558	1	05/16/2018 02:15	WG1111817
cis-1,3-Dichloropropene	ND		0.00279	1	05/16/2018 02:15	WG1111817
trans-1,3-Dichloropropene	ND		0.00558	1	05/16/2018 02:15	WG1111817
2,2-Dichloropropane	ND		0.00279	1	05/16/2018 02:15	WG1111817
Di-isopropyl ether	ND		0.00112	1	05/16/2018 02:15	WG1111817
Ethylbenzene	ND		0.00279	1	05/16/2018 02:15	WG1111817
Hexachloro-1,3-butadiene	ND		0.0279	1	05/16/2018 02:15	WG1111817
Isopropylbenzene	ND		0.00279	1	05/16/2018 02:15	WG1111817
p-Isopropyltoluene	ND		0.00558	1	05/16/2018 02:15	WG1111817
2-Butanone (MEK)	ND		0.0279	1	05/16/2018 02:15	WG1111817
Methylene Chloride	ND		0.0279	1	05/16/2018 02:15	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0279	1	05/16/2018 02:15	WG1111817
Methyl tert-butyl ether	ND	JO J4	0.00112	1	05/16/2018 02:15	WG1111817
Naphthalene	ND		0.0140	1	05/16/2018 02:15	WG1111817
n-Propylbenzene	ND	J4	0.00558	1	05/16/2018 02:15	WG1111817
Styrene	ND		0.0140	1	05/16/2018 02:15	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
Tetrachloroethene	ND		0.00279	1	05/16/2018 02:15	WG1111817
Toluene	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,2,3-Trichlorobenzene	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,2,4-Trichlorobenzene	ND		0.0140	1	05/16/2018 02:15	WG1111817
1,1,1-Trichloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,1,2-Trichloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
Trichloroethene	ND		0.00112	1	05/16/2018 02:15	WG1111817
Trichlorofluoromethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,2,3-Trichloropropane	ND		0.0140	1	05/16/2018 02:15	WG1111817
1,2,4-Trimethylbenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,2,3-Trimethylbenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
Vinyl chloride	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,3,5-Trimethylbenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
Xylenes, Total	ND		0.00726	1	05/16/2018 02:15	WG1111817
(S) Toluene-d8	107		80.0-120		05/16/2018 02:15	WG1111817
(S) Dibromofluoromethane	105		74.0-131		05/16/2018 02:15	WG1111817
(S) 4-Bromofluorobenzene	94.2		64.0-132		05/16/2018 02:15	WG1111817

- 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	82.8		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0308	1.02	05/16/2018 02:35	WG1111817
Acrylonitrile	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
Benzene	ND		0.00123	1.02	05/16/2018 02:35	WG1111817
Bromobenzene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
Bromodichloromethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Bromoform	ND		0.0308	1.02	05/16/2018 02:35	WG1111817
Bromomethane	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
n-Butylbenzene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
sec-Butylbenzene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
tert-Butylbenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
Carbon tetrachloride	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
Chlorobenzene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Chlorodibromomethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Chloroethane	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
Chloroform	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Chloromethane	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
2-Chlorotoluene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
4-Chlorotoluene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0308	1.02	05/16/2018 02:35	WG1111817
1,2-Dibromoethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Dibromomethane	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,2-Dichlorobenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,3-Dichlorobenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,4-Dichlorobenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
Dichlorodifluoromethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,1-Dichloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,2-Dichloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,1-Dichloroethene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
cis-1,2-Dichloroethene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
trans-1,2-Dichloroethene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,2-Dichloropropane	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,1-Dichloropropene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00616	1.02	05/16/2018 02:35	WG1111817
cis-1,3-Dichloropropene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
trans-1,3-Dichloropropene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
2,2-Dichloropropane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Di-isopropyl ether	ND		0.00123	1.02	05/16/2018 02:35	WG1111817
Ethylbenzene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Hexachloro-1,3-butadiene	ND		0.0308	1.02	05/16/2018 02:35	WG1111817
Isopropylbenzene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
p-Isopropyltoluene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
2-Butanone (MEK)	ND		0.0308	1.02	05/16/2018 02:35	WG1111817
Methylene Chloride	ND		0.0308	1.02	05/16/2018 02:35	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0308	1.02	05/16/2018 02:35	WG1111817
Methyl tert-butyl ether	ND	<u>JO J4</u>	0.00123	1.02	05/16/2018 02:35	WG1111817
Naphthalene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
n-Propylbenzene	ND	<u>J4</u>	0.00616	1.02	05/16/2018 02:35	WG1111817
Styrene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Tetrachloroethene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Toluene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,2,3-Trichlorobenzene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,2,4-Trichlorobenzene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
1,1,1-Trichloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,1,2-Trichloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Trichloroethene	ND		0.00123	1.02	05/16/2018 02:35	WG1111817
Trichlorofluoromethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,2,3-Trichloropropane	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
1,2,4-Trimethylbenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,2,3-Trimethylbenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
Vinyl chloride	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,3,5-Trimethylbenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
Xylenes, Total	ND		0.00801	1.02	05/16/2018 02:35	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 02:35	WG1111817
(S) Dibromofluoromethane	95.7		74.0-131		05/16/2018 02:35	WG1111817
(S) 4-Bromofluorobenzene	96.9		64.0-132		05/16/2018 02:35	WG1111817

- 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	87.9		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0285	1	05/16/2018 02:55	WG1111817
Acrylonitrile	ND		0.0142	1	05/16/2018 02:55	WG1111817
Benzene	ND		0.00114	1	05/16/2018 02:55	WG1111817
Bromobenzene	ND		0.0142	1	05/16/2018 02:55	WG1111817
Bromodichloromethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
Bromoform	ND		0.0285	1	05/16/2018 02:55	WG1111817
Bromomethane	ND		0.0142	1	05/16/2018 02:55	WG1111817
n-Butylbenzene	ND		0.0142	1	05/16/2018 02:55	WG1111817
sec-Butylbenzene	ND		0.0142	1	05/16/2018 02:55	WG1111817
tert-Butylbenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
Carbon tetrachloride	ND		0.00569	1	05/16/2018 02:55	WG1111817
Chlorobenzene	ND		0.00285	1	05/16/2018 02:55	WG1111817
Chlorodibromomethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
Chloroethane	ND		0.00569	1	05/16/2018 02:55	WG1111817
Chloroform	ND		0.00285	1	05/16/2018 02:55	WG1111817
Chloromethane	ND		0.0142	1	05/16/2018 02:55	WG1111817
2-Chlorotoluene	ND		0.00285	1	05/16/2018 02:55	WG1111817
4-Chlorotoluene	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0285	1	05/16/2018 02:55	WG1111817
1,2-Dibromoethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
Dibromomethane	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,2-Dichlorobenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,3-Dichlorobenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,4-Dichlorobenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
Dichlorodifluoromethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,1-Dichloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,2-Dichloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,1-Dichloroethene	ND		0.00285	1	05/16/2018 02:55	WG1111817
cis-1,2-Dichloroethene	ND		0.00285	1	05/16/2018 02:55	WG1111817
trans-1,2-Dichloroethene	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,2-Dichloropropane	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,1-Dichloropropene	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00569	1	05/16/2018 02:55	WG1111817
cis-1,3-Dichloropropene	ND		0.00285	1	05/16/2018 02:55	WG1111817
trans-1,3-Dichloropropene	ND		0.00569	1	05/16/2018 02:55	WG1111817
2,2-Dichloropropane	ND		0.00285	1	05/16/2018 02:55	WG1111817
Di-isopropyl ether	ND		0.00114	1	05/16/2018 02:55	WG1111817
Ethylbenzene	ND		0.00285	1	05/16/2018 02:55	WG1111817
Hexachloro-1,3-butadiene	ND		0.0285	1	05/16/2018 02:55	WG1111817
Isopropylbenzene	ND		0.00285	1	05/16/2018 02:55	WG1111817
p-Isopropyltoluene	ND		0.00569	1	05/16/2018 02:55	WG1111817
2-Butanone (MEK)	ND		0.0285	1	05/16/2018 02:55	WG1111817
Methylene Chloride	ND		0.0285	1	05/16/2018 02:55	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0285	1	05/16/2018 02:55	WG1111817
Methyl tert-butyl ether	ND	<u>JO J4</u>	0.00114	1	05/16/2018 02:55	WG1111817
Naphthalene	ND		0.0142	1	05/16/2018 02:55	WG1111817
n-Propylbenzene	ND	<u>J4</u>	0.00569	1	05/16/2018 02:55	WG1111817
Styrene	ND		0.0142	1	05/16/2018 02:55	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
Tetrachloroethene	ND		0.00285	1	05/16/2018 02:55	WG1111817
Toluene	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,2,3-Trichlorobenzene	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,2,4-Trichlorobenzene	ND		0.0142	1	05/16/2018 02:55	WG1111817
1,1,1-Trichloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,1,2-Trichloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
Trichloroethene	ND		0.00114	1	05/16/2018 02:55	WG1111817
Trichlorofluoromethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,2,3-Trichloropropane	ND		0.0142	1	05/16/2018 02:55	WG1111817
1,2,4-Trimethylbenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,2,3-Trimethylbenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
Vinyl chloride	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,3,5-Trimethylbenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
Xylenes, Total	ND		0.00740	1	05/16/2018 02:55	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 02:55	WG1111817
(S) Dibromofluoromethane	94.9		74.0-131		05/16/2018 02:55	WG1111817
(S) 4-Bromofluorobenzene	99.8		64.0-132		05/16/2018 02:55	WG1111817

- 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	88.6		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0310	1.1	05/16/2018 03:14	WG1111817
Acrylonitrile	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
Benzene	ND		0.00124	1.1	05/16/2018 03:14	WG1111817
Bromobenzene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
Bromodichloromethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Bromoform	ND		0.0310	1.1	05/16/2018 03:14	WG1111817
Bromomethane	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
n-Butylbenzene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
sec-Butylbenzene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
tert-Butylbenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
Carbon tetrachloride	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
Chlorobenzene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Chlorodibromomethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Chloroethane	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
Chloroform	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Chloromethane	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
2-Chlorotoluene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
4-Chlorotoluene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0310	1.1	05/16/2018 03:14	WG1111817
1,2-Dibromoethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Dibromomethane	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,2-Dichlorobenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,3-Dichlorobenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,4-Dichlorobenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
Dichlorodifluoromethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,1-Dichloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,2-Dichloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,1-Dichloroethene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
cis-1,2-Dichloroethene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
trans-1,2-Dichloroethene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,2-Dichloropropane	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,1-Dichloropropene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00621	1.1	05/16/2018 03:14	WG1111817
cis-1,3-Dichloropropene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
trans-1,3-Dichloropropene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
2,2-Dichloropropane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Di-isopropyl ether	ND		0.00124	1.1	05/16/2018 03:14	WG1111817
Ethylbenzene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Hexachloro-1,3-butadiene	ND		0.0310	1.1	05/16/2018 03:14	WG1111817
Isopropylbenzene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
p-Isopropyltoluene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
2-Butanone (MEK)	ND		0.0310	1.1	05/16/2018 03:14	WG1111817
Methylene Chloride	ND		0.0310	1.1	05/16/2018 03:14	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0310	1.1	05/16/2018 03:14	WG1111817
Methyl tert-butyl ether	ND	<u>JO J4</u>	0.00124	1.1	05/16/2018 03:14	WG1111817
Naphthalene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
n-Propylbenzene	ND	<u>J4</u>	0.00621	1.1	05/16/2018 03:14	WG1111817
Styrene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817

- 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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Tetrachloroethene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Toluene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,2,3-Trichlorobenzene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,2,4-Trichlorobenzene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
1,1,1-Trichloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,1,2-Trichloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Trichloroethene	ND		0.00124	1.1	05/16/2018 03:14	WG1111817
Trichlorofluoromethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,2,3-Trichloropropane	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
1,2,4-Trimethylbenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,2,3-Trimethylbenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
Vinyl chloride	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,3,5-Trimethylbenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
Xylenes, Total	ND		0.00807	1.1	05/16/2018 03:14	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 03:14	WG1111817
(S) Dibromofluoromethane	85.0		74.0-131		05/16/2018 03:14	WG1111817
(S) 4-Bromofluorobenzene	95.9		64.0-132		05/16/2018 03:14	WG1111817

- 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	85.9		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0291	1	05/16/2018 03:34	WG1111817
Acrylonitrile	ND		0.0146	1	05/16/2018 03:34	WG1111817
Benzene	ND		0.00116	1	05/16/2018 03:34	WG1111817
Bromobenzene	ND		0.0146	1	05/16/2018 03:34	WG1111817
Bromodichloromethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Bromoform	ND		0.0291	1	05/16/2018 03:34	WG1111817
Bromomethane	ND		0.0146	1	05/16/2018 03:34	WG1111817
n-Butylbenzene	ND		0.0146	1	05/16/2018 03:34	WG1111817
sec-Butylbenzene	ND		0.0146	1	05/16/2018 03:34	WG1111817
tert-Butylbenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
Carbon tetrachloride	ND		0.00582	1	05/16/2018 03:34	WG1111817
Chlorobenzene	ND		0.00291	1	05/16/2018 03:34	WG1111817
Chlorodibromomethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Chloroethane	ND		0.00582	1	05/16/2018 03:34	WG1111817
Chloroform	ND		0.00291	1	05/16/2018 03:34	WG1111817
Chloromethane	ND		0.0146	1	05/16/2018 03:34	WG1111817
2-Chlorotoluene	ND		0.00291	1	05/16/2018 03:34	WG1111817
4-Chlorotoluene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0291	1	05/16/2018 03:34	WG1111817
1,2-Dibromoethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Dibromomethane	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2-Dichlorobenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,3-Dichlorobenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,4-Dichlorobenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
Dichlorodifluoromethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,1-Dichloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,2-Dichloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,1-Dichloroethene	ND		0.00291	1	05/16/2018 03:34	WG1111817
cis-1,2-Dichloroethene	ND		0.00291	1	05/16/2018 03:34	WG1111817
trans-1,2-Dichloroethene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2-Dichloropropane	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,1-Dichloropropene	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00582	1	05/16/2018 03:34	WG1111817
cis-1,3-Dichloropropene	ND		0.00291	1	05/16/2018 03:34	WG1111817
trans-1,3-Dichloropropene	ND		0.00582	1	05/16/2018 03:34	WG1111817
2,2-Dichloropropane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Di-isopropyl ether	ND		0.00116	1	05/16/2018 03:34	WG1111817
Ethylbenzene	ND		0.00291	1	05/16/2018 03:34	WG1111817
Hexachloro-1,3-butadiene	ND		0.0291	1	05/16/2018 03:34	WG1111817
Isopropylbenzene	ND		0.00291	1	05/16/2018 03:34	WG1111817
p-Isopropyltoluene	ND		0.00582	1	05/16/2018 03:34	WG1111817
2-Butanone (MEK)	ND		0.0291	1	05/16/2018 03:34	WG1111817
Methylene Chloride	ND		0.0291	1	05/16/2018 03:34	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0291	1	05/16/2018 03:34	WG1111817
Methyl tert-butyl ether	ND	<u>JO J4</u>	0.00116	1	05/16/2018 03:34	WG1111817
Naphthalene	ND		0.0146	1	05/16/2018 03:34	WG1111817
n-Propylbenzene	ND	<u>J4</u>	0.00582	1	05/16/2018 03:34	WG1111817
Styrene	ND		0.0146	1	05/16/2018 03:34	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Tetrachloroethene	ND		0.00291	1	05/16/2018 03:34	WG1111817
Toluene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2,3-Trichlorobenzene	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,2,4-Trichlorobenzene	ND		0.0146	1	05/16/2018 03:34	WG1111817
1,1,1-Trichloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,1,2-Trichloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Trichloroethene	ND		0.00116	1	05/16/2018 03:34	WG1111817
Trichlorofluoromethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,2,3-Trichloropropane	ND		0.0146	1	05/16/2018 03:34	WG1111817
1,2,4-Trimethylbenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2,3-Trimethylbenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
Vinyl chloride	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,3,5-Trimethylbenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
Xylenes, Total	ND		0.00757	1	05/16/2018 03:34	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 03:34	WG1111817
(S) Dibromofluoromethane	95.4		74.0-131		05/16/2018 03:34	WG1111817
(S) 4-Bromofluorobenzene	96.2		64.0-132		05/16/2018 03:34	WG1111817

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	82.0		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0305	1	05/16/2018 03:54	WG1111817
Acrylonitrile	ND		0.0152	1	05/16/2018 03:54	WG1111817
Benzene	ND		0.00122	1	05/16/2018 03:54	WG1111817
Bromobenzene	ND		0.0152	1	05/16/2018 03:54	WG1111817
Bromodichloromethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Bromoform	ND		0.0305	1	05/16/2018 03:54	WG1111817
Bromomethane	ND		0.0152	1	05/16/2018 03:54	WG1111817
n-Butylbenzene	ND		0.0152	1	05/16/2018 03:54	WG1111817
sec-Butylbenzene	ND		0.0152	1	05/16/2018 03:54	WG1111817
tert-Butylbenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
Carbon tetrachloride	ND		0.00610	1	05/16/2018 03:54	WG1111817
Chlorobenzene	ND		0.00305	1	05/16/2018 03:54	WG1111817
Chlorodibromomethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Chloroethane	ND		0.00610	1	05/16/2018 03:54	WG1111817
Chloroform	ND		0.00305	1	05/16/2018 03:54	WG1111817
Chloromethane	ND		0.0152	1	05/16/2018 03:54	WG1111817
2-Chlorotoluene	ND		0.00305	1	05/16/2018 03:54	WG1111817
4-Chlorotoluene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0305	1	05/16/2018 03:54	WG1111817
1,2-Dibromoethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Dibromomethane	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2-Dichlorobenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,3-Dichlorobenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,4-Dichlorobenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
Dichlorodifluoromethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,1-Dichloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,2-Dichloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,1-Dichloroethene	ND		0.00305	1	05/16/2018 03:54	WG1111817
cis-1,2-Dichloroethene	ND		0.00305	1	05/16/2018 03:54	WG1111817
trans-1,2-Dichloroethene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2-Dichloropropane	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,1-Dichloropropene	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00610	1	05/16/2018 03:54	WG1111817
cis-1,3-Dichloropropene	ND		0.00305	1	05/16/2018 03:54	WG1111817
trans-1,3-Dichloropropene	ND		0.00610	1	05/16/2018 03:54	WG1111817
2,2-Dichloropropane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Di-isopropyl ether	ND		0.00122	1	05/16/2018 03:54	WG1111817
Ethylbenzene	ND		0.00305	1	05/16/2018 03:54	WG1111817
Hexachloro-1,3-butadiene	ND		0.0305	1	05/16/2018 03:54	WG1111817
Isopropylbenzene	ND		0.00305	1	05/16/2018 03:54	WG1111817
p-Isopropyltoluene	ND		0.00610	1	05/16/2018 03:54	WG1111817
2-Butanone (MEK)	ND		0.0305	1	05/16/2018 03:54	WG1111817
Methylene Chloride	ND		0.0305	1	05/16/2018 03:54	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0305	1	05/16/2018 03:54	WG1111817
Methyl tert-butyl ether	ND	<u>JO J4</u>	0.00122	1	05/16/2018 03:54	WG1111817
Naphthalene	ND		0.0152	1	05/16/2018 03:54	WG1111817
n-Propylbenzene	ND	<u>J4</u>	0.00610	1	05/16/2018 03:54	WG1111817
Styrene	ND		0.0152	1	05/16/2018 03:54	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Tetrachloroethene	ND		0.00305	1	05/16/2018 03:54	WG1111817
Toluene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2,3-Trichlorobenzene	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,2,4-Trichlorobenzene	ND		0.0152	1	05/16/2018 03:54	WG1111817
1,1,1-Trichloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,1,2-Trichloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Trichloroethene	ND		0.00122	1	05/16/2018 03:54	WG1111817
Trichlorofluoromethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,2,3-Trichloropropane	ND		0.0152	1	05/16/2018 03:54	WG1111817
1,2,4-Trimethylbenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2,3-Trimethylbenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
Vinyl chloride	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,3,5-Trimethylbenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
Xylenes, Total	ND		0.00793	1	05/16/2018 03:54	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 03:54	WG1111817
(S) Dibromofluoromethane	96.8		74.0-131		05/16/2018 03:54	WG1111817
(S) 4-Bromofluorobenzene	97.3		64.0-132		05/16/2018 03:54	WG1111817

- 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	82.0		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0305	1	05/16/2018 04:13	WG1111817
Acrylonitrile	ND		0.0153	1	05/16/2018 04:13	WG1111817
Benzene	ND		0.00122	1	05/16/2018 04:13	WG1111817
Bromobenzene	ND		0.0153	1	05/16/2018 04:13	WG1111817
Bromodichloromethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
Bromoform	ND		0.0305	1	05/16/2018 04:13	WG1111817
Bromomethane	ND		0.0153	1	05/16/2018 04:13	WG1111817
n-Butylbenzene	ND		0.0153	1	05/16/2018 04:13	WG1111817
sec-Butylbenzene	ND		0.0153	1	05/16/2018 04:13	WG1111817
tert-Butylbenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
Carbon tetrachloride	ND		0.00610	1	05/16/2018 04:13	WG1111817
Chlorobenzene	ND		0.00305	1	05/16/2018 04:13	WG1111817
Chlorodibromomethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
Chloroethane	ND		0.00610	1	05/16/2018 04:13	WG1111817
Chloroform	ND		0.00305	1	05/16/2018 04:13	WG1111817
Chloromethane	ND		0.0153	1	05/16/2018 04:13	WG1111817
2-Chlorotoluene	ND		0.00305	1	05/16/2018 04:13	WG1111817
4-Chlorotoluene	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0305	1	05/16/2018 04:13	WG1111817
1,2-Dibromoethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
Dibromomethane	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,2-Dichlorobenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,3-Dichlorobenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,4-Dichlorobenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
Dichlorodifluoromethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,1-Dichloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,2-Dichloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,1-Dichloroethene	ND		0.00305	1	05/16/2018 04:13	WG1111817
cis-1,2-Dichloroethene	ND		0.00305	1	05/16/2018 04:13	WG1111817
trans-1,2-Dichloroethene	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,2-Dichloropropane	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,1-Dichloropropene	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00610	1	05/16/2018 04:13	WG1111817
cis-1,3-Dichloropropene	ND		0.00305	1	05/16/2018 04:13	WG1111817
trans-1,3-Dichloropropene	ND		0.00610	1	05/16/2018 04:13	WG1111817
2,2-Dichloropropane	ND		0.00305	1	05/16/2018 04:13	WG1111817
Di-isopropyl ether	ND		0.00122	1	05/16/2018 04:13	WG1111817
Ethylbenzene	ND		0.00305	1	05/16/2018 04:13	WG1111817
Hexachloro-1,3-butadiene	ND		0.0305	1	05/16/2018 04:13	WG1111817
Isopropylbenzene	ND		0.00305	1	05/16/2018 04:13	WG1111817
p-Isopropyltoluene	ND		0.00610	1	05/16/2018 04:13	WG1111817
2-Butanone (MEK)	ND		0.0305	1	05/16/2018 04:13	WG1111817
Methylene Chloride	ND		0.0305	1	05/16/2018 04:13	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0305	1	05/16/2018 04:13	WG1111817
Methyl tert-butyl ether	ND	<u>JO J4</u>	0.00122	1	05/16/2018 04:13	WG1111817
Naphthalene	ND		0.0153	1	05/16/2018 04:13	WG1111817
n-Propylbenzene	ND	<u>J4</u>	0.00610	1	05/16/2018 04:13	WG1111817
Styrene	ND		0.0153	1	05/16/2018 04:13	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817

- 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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
Tetrachloroethene	ND		0.00305	1	05/16/2018 04:13	WG1111817
Toluene	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,2,3-Trichlorobenzene	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,2,4-Trichlorobenzene	ND		0.0153	1	05/16/2018 04:13	WG1111817
1,1,1-Trichloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,1,2-Trichloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
Trichloroethene	ND		0.00122	1	05/16/2018 04:13	WG1111817
Trichlorofluoromethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,2,3-Trichloropropane	ND		0.0153	1	05/16/2018 04:13	WG1111817
1,2,4-Trimethylbenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,2,3-Trimethylbenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
Vinyl chloride	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,3,5-Trimethylbenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
Xylenes, Total	ND		0.00793	1	05/16/2018 04:13	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 04:13	WG1111817
(S) Dibromofluoromethane	97.7		74.0-131		05/16/2018 04:13	WG1111817
(S) 4-Bromofluorobenzene	97.6		64.0-132		05/16/2018 04:13	WG1111817

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	90.9		1	05/17/2018 15:33	WG1112650

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0275	1	05/16/2018 04:33	WG1111817
Acrylonitrile	ND		0.0137	1	05/16/2018 04:33	WG1111817
Benzene	ND		0.00110	1	05/16/2018 04:33	WG1111817
Bromobenzene	ND		0.0137	1	05/16/2018 04:33	WG1111817
Bromodichloromethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
Bromoform	ND		0.0275	1	05/16/2018 04:33	WG1111817
Bromomethane	ND		0.0137	1	05/16/2018 04:33	WG1111817
n-Butylbenzene	ND		0.0137	1	05/16/2018 04:33	WG1111817
sec-Butylbenzene	ND		0.0137	1	05/16/2018 04:33	WG1111817
tert-Butylbenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
Carbon tetrachloride	ND		0.00550	1	05/16/2018 04:33	WG1111817
Chlorobenzene	ND		0.00275	1	05/16/2018 04:33	WG1111817
Chlorodibromomethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
Chloroethane	ND		0.00550	1	05/16/2018 04:33	WG1111817
Chloroform	ND		0.00275	1	05/16/2018 04:33	WG1111817
Chloromethane	ND		0.0137	1	05/16/2018 04:33	WG1111817
2-Chlorotoluene	ND		0.00275	1	05/16/2018 04:33	WG1111817
4-Chlorotoluene	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0275	1	05/16/2018 04:33	WG1111817
1,2-Dibromoethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
Dibromomethane	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,2-Dichlorobenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,3-Dichlorobenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,4-Dichlorobenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
Dichlorodifluoromethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,1-Dichloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,2-Dichloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,1-Dichloroethene	ND		0.00275	1	05/16/2018 04:33	WG1111817
cis-1,2-Dichloroethene	ND		0.00275	1	05/16/2018 04:33	WG1111817
trans-1,2-Dichloroethene	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,2-Dichloropropane	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,1-Dichloropropene	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00550	1	05/16/2018 04:33	WG1111817
cis-1,3-Dichloropropene	ND		0.00275	1	05/16/2018 04:33	WG1111817
trans-1,3-Dichloropropene	ND		0.00550	1	05/16/2018 04:33	WG1111817
2,2-Dichloropropane	ND		0.00275	1	05/16/2018 04:33	WG1111817
Di-isopropyl ether	ND		0.00110	1	05/16/2018 04:33	WG1111817
Ethylbenzene	ND		0.00275	1	05/16/2018 04:33	WG1111817
Hexachloro-1,3-butadiene	ND		0.0275	1	05/16/2018 04:33	WG1111817
Isopropylbenzene	ND		0.00275	1	05/16/2018 04:33	WG1111817
p-Isopropyltoluene	ND		0.00550	1	05/16/2018 04:33	WG1111817
2-Butanone (MEK)	ND		0.0275	1	05/16/2018 04:33	WG1111817
Methylene Chloride	ND		0.0275	1	05/16/2018 04:33	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0275	1	05/16/2018 04:33	WG1111817
Methyl tert-butyl ether	ND	<u>JO J4</u>	0.00110	1	05/16/2018 04:33	WG1111817
Naphthalene	ND		0.0137	1	05/16/2018 04:33	WG1111817
n-Propylbenzene	ND	<u>J4</u>	0.00550	1	05/16/2018 04:33	WG1111817
Styrene	ND		0.0137	1	05/16/2018 04:33	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
Tetrachloroethene	0.0307		0.00275	1	05/16/2018 04:33	WG1111817
Toluene	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,2,3-Trichlorobenzene	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,2,4-Trichlorobenzene	ND		0.0137	1	05/16/2018 04:33	WG1111817
1,1,1-Trichloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,1,2-Trichloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
Trichloroethene	0.0114		0.00110	1	05/16/2018 04:33	WG1111817
Trichlorofluoromethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,2,3-Trichloropropane	ND		0.0137	1	05/16/2018 04:33	WG1111817
1,2,4-Trimethylbenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,2,3-Trimethylbenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
Vinyl chloride	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,3,5-Trimethylbenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
Xylenes, Total	ND		0.00715	1	05/16/2018 04:33	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 04:33	WG1111817
(S) Dibromofluoromethane	97.4		74.0-131		05/16/2018 04:33	WG1111817
(S) 4-Bromofluorobenzene	94.9		64.0-132		05/16/2018 04:33	WG1111817

- 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	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		25.0	1	05/16/2018 12:52	WG1111989
Acrylonitrile	ND		5.00	1	05/16/2018 12:52	WG1111989
Benzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromodichloromethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromochloromethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromoform	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromomethane	ND		2.50	1	05/16/2018 12:52	WG1111989
n-Butylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
sec-Butylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
tert-Butylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Carbon disulfide	ND		0.500	1	05/16/2018 12:52	WG1111989
Carbon tetrachloride	ND		0.500	1	05/16/2018 12:52	WG1111989
Chlorobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Chlorodibromomethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Chloroethane	ND	JO	2.50	1	05/16/2018 12:52	WG1111989
Chloroform	ND		0.500	1	05/16/2018 12:52	WG1111989
Chloromethane	ND		1.25	1	05/16/2018 12:52	WG1111989
2-Chlorotoluene	ND		0.500	1	05/16/2018 12:52	WG1111989
4-Chlorotoluene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2-Dibromo-3-Chloropropane	ND		2.50	1	05/16/2018 12:52	WG1111989
1,2-Dibromoethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Dibromomethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2-Dichlorobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,3-Dichlorobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,4-Dichlorobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Dichlorodifluoromethane	ND		2.50	1	05/16/2018 12:52	WG1111989
1,1-Dichloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2-Dichloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1-Dichloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
cis-1,2-Dichloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
trans-1,2-Dichloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2-Dichloropropane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1-Dichloropropene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,3-Dichloropropane	ND		1.00	1	05/16/2018 12:52	WG1111989
cis-1,3-Dichloropropene	ND		0.500	1	05/16/2018 12:52	WG1111989
trans-1,3-Dichloropropene	ND		0.500	1	05/16/2018 12:52	WG1111989
trans-1,4-Dichloro-2-butene	ND		5.00	1	05/16/2018 12:52	WG1111989
2,2-Dichloropropane	ND		0.500	1	05/16/2018 12:52	WG1111989
Di-isopropyl ether	ND		0.500	1	05/16/2018 12:52	WG1111989
Ethylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Hexachloro-1,3-butadiene	ND	JO	1.00	1	05/16/2018 12:52	WG1111989
2-Hexanone	ND		5.00	1	05/16/2018 12:52	WG1111989
n-Hexane	ND		5.00	1	05/16/2018 12:52	WG1111989
Iodomethane	ND		10.0	1	05/16/2018 12:52	WG1111989
Isopropylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
p-Isopropyltoluene	ND		0.500	1	05/16/2018 12:52	WG1111989
2-Butanone (MEK)	ND		5.00	1	05/16/2018 12:52	WG1111989
Methylene Chloride	ND		2.50	1	05/16/2018 12:52	WG1111989
4-Methyl-2-pentanone (MIBK)	ND		5.00	1	05/16/2018 12:52	WG1111989
Methyl tert-butyl ether	ND		0.500	1	05/16/2018 12:52	WG1111989
Naphthalene	ND		2.50	1	05/16/2018 12:52	WG1111989
n-Propylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Styrene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1,1,2-Tetrachloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1,2,2-Tetrachloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/14/18 00:00

L993885

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Tetrachloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
Toluene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2,3-Trichlorobenzene	ND	<u>JO</u>	0.500	1	05/16/2018 12:52	WG1111989
1,2,4-Trichlorobenzene	ND	<u>JO</u>	0.500	1	05/16/2018 12:52	WG1111989
1,1,1-Trichloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1,2-Trichloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Trichloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
Trichlorofluoromethane	ND		2.50	1	05/16/2018 12:52	WG1111989
1,2,3-Trichloropropane	ND		2.50	1	05/16/2018 12:52	WG1111989
1,2,4-Trimethylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2,3-Trimethylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,3,5-Trimethylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Vinyl acetate	ND	<u>J3</u>	5.00	1	05/16/2018 12:52	WG1111989
Vinyl chloride	ND		0.500	1	05/16/2018 12:52	WG1111989
Xylenes, Total	ND		1.50	1	05/16/2018 12:52	WG1111989
(S) Toluene-d8	94.2		80.0-120		05/16/2018 12:52	WG1111989
(S) Dibromofluoromethane	112		76.0-123		05/16/2018 12:52	WG1111989
(S) 4-Bromofluorobenzene	116		80.0-120		05/16/2018 12:52	WG1111989

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



Method Blank (MB)

(MB) R3311086-1 05/17/18 13:51

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

L993885-01 Original Sample (OS) • Duplicate (DUP)

(OS) L993885-01 05/17/18 13:51 • (DUP) R3311086-3 05/17/18 13:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	81.3	79.1	1	2.73		5

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3311086-2 05/17/18 13:51

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) R3311018-1 05/17/18 15:45

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L993885-09 Original Sample (OS) • Duplicate (DUP)

(OS) L993885-09 05/17/18 15:45 • (DUP) R3311018-3 05/17/18 15:45

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	87.9	88.4	1	0.598		5

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3311018-2 05/17/18 15:45

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) R3311014-1 05/17/18 15:33

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L993885-14 Original Sample (OS) • Duplicate (DUP)

(OS) L993885-14 05/17/18 15:33 • (DUP) R3311014-3 05/17/18 15:33

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	90.9	92.2	1	1.36		5

Laboratory Control Sample (LCS)

(LCS) R3311014-2 05/17/18 15:33

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) R3310138-3 05/15/18 23:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3310138-3 05/15/18 23:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	111			80.0-120
(S) Dibromofluoromethane	82.4			74.0-131
(S) 4-Bromofluorobenzene	96.6			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) R3310138-1 05/15/18 22:17 • (LCSD) R3310138-2 05/15/18 22:37

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	0.625	0.592	0.572	94.8	91.5	25.3-178			3.49	22.9
Acrylonitrile	0.625	0.628	0.612	101	98.0	57.8-143			2.60	20
Benzene	0.125	0.121	0.121	96.7	96.8	72.6-120			0.0719	20
Bromobenzene	0.125	0.129	0.126	103	100	80.3-115			2.98	20
Bromodichloromethane	0.125	0.126	0.128	101	102	75.3-119			1.63	20



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

(LCS) R3310138-1 05/15/18 22:17 • (LCSD) R3310138-2 05/15/18 22:37

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 %
Bromoform	0.125	0.119	0.116	95.5	92.9	69.1-135			2.78	20
Bromomethane	0.125	0.166	0.167	133	134	23.0-191			0.554	20
n-Butylbenzene	0.125	0.112	0.117	89.5	93.5	74.2-134			4.42	20
sec-Butylbenzene	0.125	0.115	0.112	91.9	89.4	77.8-129			2.76	20
tert-Butylbenzene	0.125	0.109	0.105	86.9	84.1	77.2-129			3.27	20
Carbon tetrachloride	0.125	0.133	0.132	106	106	69.4-129			0.0724	20
Chlorobenzene	0.125	0.121	0.121	96.5	96.5	78.9-122			0.0265	20
Chlorodibromomethane	0.125	0.124	0.125	99.3	100	76.4-126			0.738	20
Chloroethane	0.125	0.138	0.138	110	110	47.2-147			0.0145	20
Chloroform	0.125	0.129	0.128	103	102	73.3-122			0.811	20
Chloromethane	0.125	0.113	0.112	90.5	89.5	53.1-135			1.05	20
2-Chlorotoluene	0.125	0.116	0.113	92.8	90.3	74.6-127			2.78	20
4-Chlorotoluene	0.125	0.124	0.121	99.5	96.7	79.5-123			2.78	20
1,2-Dibromo-3-Chloropropane	0.125	0.117	0.112	93.3	89.2	64.9-131			4.45	20
1,2-Dibromoethane	0.125	0.124	0.124	99.1	99.5	78.7-123			0.375	20
Dibromomethane	0.125	0.130	0.129	104	103	78.5-117			1.07	20
1,2-Dichlorobenzene	0.125	0.134	0.128	107	102	83.6-119			4.85	20
1,3-Dichlorobenzene	0.125	0.134	0.129	108	104	75.9-129			3.77	20
1,4-Dichlorobenzene	0.125	0.131	0.126	104	101	81.0-115			3.62	20
Dichlorodifluoromethane	0.125	0.143	0.143	114	115	50.9-139			0.399	20
1,1-Dichloroethane	0.125	0.133	0.132	106	106	71.7-125			0.581	20
1,2-Dichloroethane	0.125	0.132	0.130	105	104	67.2-121			1.36	20
1,1-Dichloroethene	0.125	0.125	0.124	100	99.4	60.6-133			0.747	20
cis-1,2-Dichloroethene	0.125	0.120	0.119	96.1	95.5	76.1-121			0.659	20
trans-1,2-Dichloroethene	0.125	0.128	0.127	103	101	70.7-124			1.21	20
1,2-Dichloropropane	0.125	0.127	0.128	101	102	76.9-123			0.963	20
1,1-Dichloropropene	0.125	0.119	0.120	95.4	95.8	71.2-126			0.383	20
1,3-Dichloropropane	0.125	0.144	0.144	115	115	80.3-114	J4	J4	0.0340	20
cis-1,3-Dichloropropene	0.125	0.111	0.112	88.6	89.4	77.3-123			0.944	20
trans-1,3-Dichloropropene	0.125	0.104	0.106	83.4	84.6	73.0-127			1.44	20
2,2-Dichloropropane	0.125	0.0985	0.0970	78.8	77.6	61.9-132			1.57	20
Di-isopropyl ether	0.125	0.111	0.110	88.4	88.0	67.2-131			0.491	20
Ethylbenzene	0.125	0.107	0.107	85.7	85.8	78.6-124			0.0438	20
Hexachloro-1,3-butadiene	0.125	0.138	0.135	110	108	69.2-136			2.33	20
Isopropylbenzene	0.125	0.110	0.107	88.3	86.0	79.4-126			2.63	20
p-Isopropyltoluene	0.125	0.120	0.117	95.8	93.5	75.4-132			2.42	20
2-Butanone (MEK)	0.625	0.653	0.642	104	103	44.5-154			1.70	21.3
Methylene Chloride	0.125	0.121	0.120	96.8	95.6	68.2-119			1.20	20
4-Methyl-2-pentanone (MIBK)	0.625	0.574	0.576	91.8	92.1	61.1-138			0.360	20
Methyl tert-butyl ether	0.125	0.0841	0.0834	67.3	66.7	70.2-122	J4	J4	0.853	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) R3310138-1 05/15/18 22:17 • (LCSD) R3310138-2 05/15/18 22:37

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 %
Naphthalene	0.125	0.119	0.112	95.3	89.9	69.9-132			5.83	20
n-Propylbenzene	0.125	0.102	0.0997	81.9	79.7	80.2-124		J4	2.70	20
Styrene	0.125	0.105	0.103	84.1	82.4	79.4-124			2.09	20
1,1,1,2-Tetrachloroethane	0.125	0.124	0.123	99.5	98.5	76.7-127			1.05	20
1,1,2,2-Tetrachloroethane	0.125	0.123	0.119	98.7	95.3	78.8-124			3.55	20
Tetrachloroethene	0.125	0.132	0.133	106	106	71.1-133			0.142	20
Toluene	0.125	0.123	0.123	98.4	98.6	76.7-116			0.247	20
1,1,2-Trichlorotrifluoroethane	0.125	0.158	0.155	126	124	62.6-138			1.70	20
1,2,3-Trichlorobenzene	0.125	0.122	0.118	97.9	94.5	72.5-137			3.58	20
1,2,4-Trichlorobenzene	0.125	0.124	0.118	99.0	94.6	74.0-137			4.53	20
1,1,1-Trichloroethane	0.125	0.127	0.126	101	101	69.9-127			0.402	20
1,1,2-Trichloroethane	0.125	0.130	0.130	104	104	81.9-119			0.223	20
Trichloroethene	0.125	0.118	0.118	94.5	94.3	77.2-122			0.184	20
Trichlorofluoromethane	0.125	0.165	0.162	132	130	51.5-151			1.58	20
1,2,3-Trichloropropane	0.125	0.130	0.125	104	100	74.0-124			3.39	20
1,2,3-Trimethylbenzene	0.125	0.125	0.120	100	96.3	79.4-118			4.00	20
1,2,4-Trimethylbenzene	0.125	0.103	0.100	82.7	80.0	77.1-124			3.39	20
1,3,5-Trimethylbenzene	0.125	0.117	0.113	93.4	90.5	79.0-125			3.14	20
Vinyl chloride	0.125	0.118	0.116	94.4	93.1	58.4-134			1.37	20
Xylenes, Total	0.375	0.329	0.330	87.7	88.0	78.1-123			0.303	20
(S) Toluene-d8				103	103	80.0-120				
(S) Dibromofluoromethane				108	106	74.0-131				
(S) 4-Bromofluorobenzene				97.9	97.3	64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L993655-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993655-01 05/16/18 05:31 • (MS) R3310138-4 05/16/18 06:48 • (MSD) R3310138-5 05/16/18 07:08

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	3.13	0.0177	0.988	0.970	31.0	30.5	1	10.0-130	J5	J5	1.78	31.5
Acrylonitrile	3.13	U	1.49	1.42	47.7	45.5	1	39.3-152	J5	J5	4.82	27.2
Benzene	0.625	U	0.498	0.484	79.7	77.5	1	47.8-131	J5	J5	2.89	22.8
Bromobenzene	0.625	U	0.609	0.578	97.5	92.5	1	40.0-130	J5	J5	5.19	27.4
Bromodichloromethane	0.625	U	0.532	0.516	85.2	82.6	1	50.6-128	J5	J5	3.14	22.8
Bromoform	0.625	U	0.522	0.524	83.5	83.9	1	43.3-139	J5	J5	0.489	25.9
Bromomethane	0.625	U	0.222	0.208	35.6	33.3	1	5.00-189			6.58	26.7
n-Butylbenzene	0.625	U	0.699	0.683	112	109	1	23.6-146	J5	J5	2.31	39.2
sec-Butylbenzene	0.625	U	0.633	0.613	101	98.0	1	31.0-142	J5	J5	3.33	34.7
tert-Butylbenzene	0.625	U	0.602	0.596	96.2	95.4	1	36.9-142	J5	J5	0.920	31.7



L993655-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993655-01 05/16/18 05:31 • (MS) R3310138-4 05/16/18 06:48 • (MSD) R3310138-5 05/16/18 07:08

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 %
Carbon tetrachloride	0.625	U	0.538	0.523	86.1	83.7	1	46.0-140	J5	J5	2.85	27.2
Chlorobenzene	0.625	U	0.596	0.590	95.3	94.4	1	44.1-134	J5	J5	0.907	25.7
Chlorodibromomethane	0.625	U	0.564	0.556	90.3	89.0	1	49.7-134	J5	J5	1.38	24
Chloroethane	0.625	U	0.131	0.117	20.9	18.7	1	5.00-164	J5	J5	11.1	28.4
Chloroform	0.625	U	0.503	0.472	80.5	75.5	1	51.2-133	J5	J5	6.36	22.8
Chloromethane	0.625	U	0.525	0.527	84.1	84.2	1	31.4-141	J5	J5	0.207	24.6
2-Chlorotoluene	0.625	U	0.594	0.588	95.1	94.1	1	36.1-137	J5	J5	1.09	28.9
4-Chlorotoluene	0.625	U	0.572	0.562	91.5	90.0	1	35.4-137	J5	J5	1.62	29.8
1,2-Dibromo-3-Chloropropane	0.625	U	0.445	0.469	71.2	75.0	1	40.4-138	J5	J5	5.19	30.8
1,2-Dibromoethane	0.625	U	0.579	0.571	92.6	91.4	1	50.2-133	J5	J5	1.31	23.6
Dibromomethane	0.625	U	0.474	0.457	75.8	73.1	1	52.4-128	J5	J5	3.63	23
1,2-Dichlorobenzene	0.625	U	0.589	0.571	94.2	91.4	1	34.6-139	J5	J5	3.05	29.9
1,3-Dichlorobenzene	0.625	U	0.611	0.594	97.7	95.1	1	28.4-142	J5	J5	2.72	31.2
1,4-Dichlorobenzene	0.625	U	0.585	0.574	93.6	91.9	1	35.0-133	J5	J5	1.89	31.1
Dichlorodifluoromethane	0.625	U	0.642	0.616	103	98.6	1	31.2-144	J5	J5	4.15	30.2
1,1-Dichloroethane	0.625	U	0.522	0.521	83.5	83.4	1	49.1-136	J5	J5	0.107	22.9
1,2-Dichloroethane	0.625	U	0.438	0.424	70.1	67.9	1	47.1-129	J5	J5	3.23	22.7
1,1-Dichloroethene	0.625	U	0.501	0.496	80.1	79.3	1	36.1-142	J5	J5	1.01	25.6
cis-1,2-Dichloroethene	0.625	U	0.483	0.472	77.3	75.6	1	50.6-133	J5	J5	2.26	23
trans-1,2-Dichloroethene	0.625	U	0.529	0.529	84.7	84.6	1	43.8-135	J5	J5	0.142	24.8
1,2-Dichloropropane	0.625	U	0.547	0.541	87.5	86.5	1	50.3-134	J5	J5	1.17	22.7
1,1-Dichloropropene	0.625	U	0.568	0.549	90.8	87.9	1	43.0-137	J5	J5	3.33	26.4
1,3-Dichloropropane	0.625	U	0.660	0.649	106	104	1	51.4-127	J5	J5	1.76	23.1
cis-1,3-Dichloropropene	0.625	U	0.554	0.552	88.7	88.3	1	48.4-134	J5	J5	0.452	23.6
trans-1,3-Dichloropropene	0.625	U	0.548	0.551	87.7	88.1	1	46.6-135	J5	J5	0.402	25.3
2,2-Dichloropropane	0.625	U	0.408	0.381	65.3	61.0	1	45.2-141	J5	J5	6.88	26.6
Di-isopropyl ether	0.625	U	0.446	0.418	71.3	66.9	1	46.7-140	J5	J5	6.30	23.5
Ethylbenzene	0.625	U	0.616	0.609	98.6	97.4	1	44.8-135	J5	J5	1.19	26.9
Hexachloro-1,3-butadiene	0.625	U	0.670	0.641	107	102	1	10.0-149	J5	J5	4.47	40
Isopropylbenzene	0.625	U	0.601	0.615	96.1	98.4	1	41.9-139	J5	J5	2.36	29.3
p-Isopropyltoluene	0.625	U	0.674	0.655	108	105	1	27.3-146	J5	J5	2.76	35.1
2-Butanone (MEK)	3.13	0.0514	2.31	1.98	72.2	61.6	1	23.9-170	J5	J5	15.5	28.3
Methylene Chloride	0.625	U	0.434	0.424	69.4	67.9	1	46.7-125	J5	J5	2.24	22.2
4-Methyl-2-pentanone (MIBK)	3.13	U	2.17	2.20	69.3	70.5	1	42.4-146	J5	J5	1.62	26.7
Methyl tert-butyl ether	0.625	U	0.272	0.259	43.6	41.4	1	50.4-131	J5	J5	5.16	24.8
Naphthalene	0.625	U	0.607	0.0425	97.2	6.79	1	18.4-145	J5	J3	174	34
n-Propylbenzene	0.625	U	0.630	0.635	101	102	1	35.2-139	J5	J5	0.746	31.9
Styrene	0.625	U	0.640	0.653	102	104	1	39.7-137	J5	J5	2.00	28.2
1,1,1,2-Tetrachloroethane	0.625	U	0.553	0.528	88.4	84.5	1	48.8-136	J5	J5	4.58	25.5
1,1,2,2-Tetrachloroethane	0.625	U	0.535	0.522	85.6	83.4	1	45.7-140	J5	J5	2.52	26.4

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993655-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993655-01 05/16/18 05:31 • (MS) R3310138-4 05/16/18 06:48 • (MSD) R3310138-5 05/16/18 07:08

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 %
Tetrachloroethene	0.625	0.00268	0.655	0.643	104	102	1	37.7-140	<u>J5</u>	<u>J5</u>	1.91	29.2
Toluene	0.625	U	0.584	0.575	93.5	92.0	1	47.8-127	<u>J5</u>	<u>J5</u>	1.57	24.3
1,1,2-Trichlorotrifluoroethane	0.625	U	0.687	0.659	110	105	1	35.7-146	<u>J5</u>	<u>J5</u>	4.13	28.8
1,2,3-Trichlorobenzene	0.625	U	0.600	0.570	96.1	91.2	1	10.0-150	<u>J5</u>	<u>J5</u>	5.15	38.5
1,2,4-Trichlorobenzene	0.625	U	0.531	0.498	85.0	79.6	1	10.0-153	<u>J5</u>	<u>J5</u>	6.50	39.3
1,1,1-Trichloroethane	0.625	U	0.521	0.496	83.3	79.4	1	49.0-138	<u>J5</u>	<u>J5</u>	4.81	25.3
1,1,2-Trichloroethane	0.625	U	0.594	0.578	95.0	92.4	1	52.3-132	<u>J5</u>	<u>J5</u>	2.76	23.4
Trichloroethene	0.625	U	0.485	0.485	77.7	77.6	1	48.0-132	<u>J5</u>	<u>J5</u>	0.0519	24.8
Trichlorofluoromethane	0.625	U	0.709	0.690	113	110	1	12.8-169	<u>J5</u>	<u>J5</u>	2.71	29.7
1,2,3-Trichloropropane	0.625	U	0.521	0.525	83.3	84.1	1	44.4-138	<u>J5</u>	<u>J5</u>	0.868	26.3
1,2,3-Trimethylbenzene	0.625	U	0.610	0.586	97.6	93.7	1	41.0-133	<u>J5</u>	<u>J5</u>	4.02	27.6
1,2,4-Trimethylbenzene	0.625	U	0.584	0.570	93.4	91.2	1	32.9-139	<u>J5</u>	<u>J5</u>	2.42	30.6
1,3,5-Trimethylbenzene	0.625	U	0.602	0.583	96.3	93.3	1	37.1-138	<u>J5</u>	<u>J5</u>	3.17	30.6
Vinyl chloride	0.625	U	0.0693	0.0675	11.1	10.8	1	32.0-146			2.67	26.3
Xylenes, Total	1.88	U	1.72	1.68	91.8	89.7	1	42.7-135	<u>J5</u>	<u>J5</u>	2.29	26.6
(S) Toluene-d8					109	109		80.0-120				
(S) Dibromofluoromethane					89.3	86.6		74.0-131				
(S) 4-Bromofluorobenzene					102	103		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) R3310485-4 05/16/18 10:41

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
Bromochloromethane	U		0.145	0.500
Bromodichloromethane	U		0.0800	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
trans-1,4-Dichloro-2-butene	U		0.257	5.00
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
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) R3310485-4 05/16/18 10:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
2-Hexanone	U		0.757	5.00
Hexachloro-1,3-butadiene	U		0.157	1.00
Iodomethane	U		0.377	10.0
n-Hexane	U		0.305	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
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 acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	95.1			80.0-120
(S) Dibromofluoromethane	110			76.0-123
(S) 4-Bromofluorobenzene	109			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) R3310485-1 05/16/18 09:14 • (LCSD) R3310485-2 05/16/18 09:35

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 %
Bromochloromethane	25.0	26.9	26.9	108	108	76.0-122			0.0291	20
Acetone	125	118	111	94.4	88.4	10.0-160			6.59	23
Acrylonitrile	125	152	147	121	118	60.0-142			2.91	20
Benzene	25.0	27.8	27.7	111	111	69.0-123			0.578	20
Bromobenzene	25.0	29.3	28.8	117	115	79.0-120			1.62	20
Bromodichloromethane	25.0	23.8	23.5	95.3	93.9	76.0-120			1.44	20
Bromoform	25.0	27.1	26.4	108	106	67.0-132			2.55	20
Bromomethane	25.0	19.5	20.3	78.1	81.2	18.0-160			3.80	20
n-Butylbenzene	25.0	23.6	22.8	94.3	91.3	72.0-126			3.19	20
sec-Butylbenzene	25.0	27.9	27.3	112	109	74.0-121			2.34	20
tert-Butylbenzene	25.0	27.3	27.2	109	109	75.0-122			0.218	20
Carbon disulfide	25.0	26.6	26.8	106	107	55.0-127			0.626	20
Carbon tetrachloride	25.0	26.2	25.8	105	103	63.0-122			1.59	20
Chlorobenzene	25.0	22.6	22.7	90.4	90.8	79.0-121			0.364	20
Chlorodibromomethane	25.0	22.4	22.1	89.6	88.6	75.0-125			1.09	20
Chloroethane	25.0	19.8	20.3	79.1	81.1	47.0-152			2.49	20
trans-1,4-Dichloro-2-butene	25.0	31.1	28.6	124	114	55.0-134			8.44	20
Chloroform	25.0	25.2	25.5	101	102	72.0-121			1.28	20
Chloromethane	25.0	32.1	32.2	128	129	48.0-139			0.489	20
2-Chlorotoluene	25.0	30.0	29.3	120	117	74.0-122			2.31	20
4-Chlorotoluene	25.0	28.9	29.1	116	116	79.0-120			0.728	20
1,2-Dibromo-3-Chloropropane	25.0	22.1	21.8	88.4	87.1	64.0-127			1.48	20
1,2-Dibromoethane	25.0	22.9	22.7	91.7	90.9	77.0-123			0.914	20
Dibromomethane	25.0	26.2	26.0	105	104	78.0-120			0.623	20
1,2-Dichlorobenzene	25.0	23.9	24.2	95.5	96.9	80.0-120			1.44	20
1,3-Dichlorobenzene	25.0	25.1	25.4	100	102	72.0-123			1.39	20
1,4-Dichlorobenzene	25.0	24.8	24.8	99.2	99.2	77.0-120			0.0231	20
Dichlorodifluoromethane	25.0	24.6	25.1	98.3	100	49.0-155			1.94	20
1,1-Dichloroethane	25.0	30.3	30.5	121	122	70.0-126			0.895	20
1,2-Dichloroethane	25.0	28.6	28.4	114	114	67.0-126			0.647	20
1,1-Dichloroethene	25.0	24.2	24.9	97.0	99.7	64.0-129			2.76	20
cis-1,2-Dichloroethene	25.0	25.1	25.4	100	102	73.0-120			1.45	20
2-Hexanone	125	119	117	95.4	93.6	58.0-147			1.87	20
trans-1,2-Dichloroethene	25.0	25.8	26.1	103	104	71.0-121			0.989	20
1,2-Dichloropropane	25.0	28.2	27.4	113	110	75.0-125			2.89	20
1,1-Dichloropropene	25.0	29.9	30.3	120	121	71.0-129			1.35	20
Iodomethane	125	126	127	101	102	57.0-140			0.741	20
1,3-Dichloropropane	25.0	25.5	25.3	102	101	80.0-121			0.847	20
cis-1,3-Dichloropropene	25.0	25.0	24.9	100	99.7	79.0-123			0.500	20
trans-1,3-Dichloropropene	25.0	24.6	24.7	98.3	98.6	74.0-127			0.328	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) R3310485-1 05/16/18 09:14 • (LCSD) R3310485-2 05/16/18 09:35

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 %
2,2-Dichloropropane	25.0	24.6	24.2	98.5	97.0	60.0-125			1.54	20
Di-isopropyl ether	25.0	32.2	31.9	129	128	59.0-133			0.945	20
Ethylbenzene	25.0	22.6	22.3	90.5	89.2	77.0-120			1.37	20
Hexachloro-1,3-butadiene	25.0	16.7	17.4	66.9	69.8	64.0-131			4.13	20
n-Hexane	25.0	26.3	24.8	105	99.2	56.0-124			6.04	20
Isopropylbenzene	25.0	29.9	29.2	119	117	75.0-120			2.39	20
p-Isopropyltoluene	25.0	25.0	24.5	100	97.8	74.0-126			2.25	20
2-Butanone (MEK)	125	152	142	121	114	37.0-158			6.47	20
Methylene Chloride	25.0	25.9	25.9	104	103	66.0-121			0.0828	20
4-Methyl-2-pentanone (MIBK)	125	130	127	104	102	59.0-143			2.49	20
Methyl tert-butyl ether	25.0	27.7	26.7	111	107	64.0-123			3.79	20
Naphthalene	25.0	20.5	22.1	81.9	88.5	62.0-128			7.79	20
n-Propylbenzene	25.0	29.8	29.2	119	117	79.0-120			2.00	20
Styrene	25.0	28.6	28.6	115	114	78.0-124			0.0819	20
1,1,1,2-Tetrachloroethane	25.0	22.8	22.0	91.4	88.1	75.0-122			3.62	20
1,1,2,2-Tetrachloroethane	25.0	26.2	25.2	105	101	71.0-122			4.14	20
Tetrachloroethene	25.0	22.2	21.6	89.0	86.5	70.0-127			2.84	20
Vinyl acetate	125	110	79.5	88.0	63.6	46.0-160		<u>J3</u>	32.1	20
Toluene	25.0	23.5	23.2	93.9	93.0	77.0-120			1.00	20
1,1,2-Trichlorotrifluoroethane	25.0	29.9	30.6	120	122	61.0-136			2.14	20
1,2,3-Trichlorobenzene	25.0	18.4	19.4	73.7	77.8	61.0-133			5.42	20
1,2,4-Trichlorobenzene	25.0	19.3	19.4	77.3	77.7	69.0-129			0.483	20
1,1,1-Trichloroethane	25.0	26.1	26.0	104	104	68.0-122			0.242	20
1,1,2-Trichloroethane	25.0	20.9	21.1	83.7	84.3	78.0-120			0.773	20
Trichloroethene	25.0	25.0	25.6	99.8	102	78.0-120			2.36	20
Trichlorofluoromethane	25.0	25.9	26.8	103	107	56.0-137			3.66	20
1,2,3-Trichloropropane	25.0	28.1	27.6	113	111	72.0-124			1.73	20
1,2,3-Trimethylbenzene	25.0	25.7	25.5	103	102	75.0-120			0.741	20
1,2,4-Trimethylbenzene	25.0	28.0	27.4	112	110	75.0-120			2.13	20
1,3,5-Trimethylbenzene	25.0	28.9	27.9	116	112	75.0-120			3.62	20
Vinyl chloride	25.0	22.1	22.8	88.4	91.1	64.0-133			2.95	20
Xylenes, Total	75.0	67.7	67.2	90.3	89.6	77.0-120			0.741	20
(S) Toluene-d8				94.2	93.8	80.0-120				
(S) Dibromofluoromethane				108	107	76.0-123				
(S) 4-Bromofluorobenzene				117	115	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993585-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993585-01 05/16/18 18:17 • (MS) R3310485-5 05/16/18 19:00 • (MSD) R3310485-6 05/16/18 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 %
Bromochloromethane	25.0	U	29.7	30.4	119	122	1	53.0-138			2.36	20
Acetone	125	U	105	106	84.0	85.0	1	10.0-139			1.25	25
Acrylonitrile	125	U	154	159	123	128	1	46.0-159			3.28	23
Benzene	25.0	U	30.8	31.6	123	126	1	34.0-147			2.34	20
Bromobenzene	25.0	U	31.1	32.0	124	128	1	51.0-137			2.99	20
Bromodichloromethane	25.0	U	26.8	28.1	107	112	1	52.0-135			4.55	20
Bromoform	25.0	U	28.1	29.4	113	118	1	50.0-146			4.35	20
Bromomethane	25.0	U	22.4	23.8	89.7	95.1	1	10.0-160			5.75	23
n-Butylbenzene	25.0	U	24.3	25.4	97.2	102	1	50.0-144			4.49	20
sec-Butylbenzene	25.0	U	27.9	28.9	112	116	1	48.0-143			3.44	20
tert-Butylbenzene	25.0	U	28.0	28.9	112	115	1	50.0-142			3.16	20
trans-1,4-Dichloro-2-butene	25.0	U	33.2	35.5	133	142	1	40.0-150			6.62	21
Carbon disulfide	25.0	U	29.6	30.4	118	122	1	10.0-147			2.75	20
Carbon tetrachloride	25.0	U	29.4	29.4	118	117	1	41.0-138			0.0890	20
Chlorobenzene	25.0	U	26.3	26.6	105	106	1	52.0-141			1.05	20
Chlorodibromomethane	25.0	U	25.1	26.0	100	104	1	54.0-142			3.47	20
Chloroethane	25.0	U	22.5	25.7	90.1	103	1	23.0-160			13.1	20
Chloroform	25.0	U	28.9	29.7	116	119	1	50.0-139			2.80	20
Chloromethane	25.0	U	35.3	35.8	141	143	1	14.0-151			1.48	20
2-Chlorotoluene	25.0	U	31.7	32.5	127	130	1	48.0-142			2.40	20
4-Chlorotoluene	25.0	U	31.3	32.4	125	129	1	52.0-139			3.28	20
1,2-Dibromo-3-Chloropropane	25.0	U	22.2	23.6	89.0	94.4	1	49.0-144			5.96	24
1,2-Dibromoethane	25.0	U	25.2	25.9	101	104	1	54.0-140			2.60	20
Dibromomethane	25.0	U	27.7	29.5	111	118	1	53.0-138			6.18	20
1,2-Dichlorobenzene	25.0	U	26.4	27.6	106	111	1	56.0-139			4.56	20
1,3-Dichlorobenzene	25.0	U	28.2	29.4	113	118	1	50.0-141			4.44	20
1,4-Dichlorobenzene	25.0	U	28.0	29.0	112	116	1	53.0-136			3.52	20
Dichlorodifluoromethane	25.0	U	30.5	32.6	122	130	1	20.0-160			6.58	21
2-Hexanone	125	U	125	128	100	103	1	36.0-145			2.72	23
1,1-Dichloroethane	25.0	U	34.5	35.4	138	141	1	47.0-143			2.54	20
1,2-Dichloroethane	25.0	U	30.9	32.5	123	130	1	47.0-141			5.16	20
Iodomethane	125	U	141	147	113	117	1	30.0-151			4.06	20
1,1-Dichloroethene	25.0	U	28.9	29.8	116	119	1	31.0-148			3.12	20
cis-1,2-Dichloroethene	25.0	2.48	30.5	31.6	112	117	1	43.0-142			3.50	20
trans-1,2-Dichloroethene	25.0	U	29.7	30.5	119	122	1	36.0-141			2.54	20
1,2-Dichloropropane	25.0	U	30.8	32.0	123	128	1	51.0-141			3.60	20
1,1-Dichloropropene	25.0	U	35.3	35.5	141	142	1	42.0-146			0.572	20
1,3-Dichloropropane	25.0	U	28.5	29.1	114	116	1	58.0-139			2.20	20
cis-1,3-Dichloropropene	25.0	U	27.5	28.1	110	113	1	53.0-139			2.15	20
trans-1,3-Dichloropropene	25.0	U	27.9	29.1	112	116	1	51.0-143			4.15	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993585-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993585-01 05/16/18 18:17 • (MS) R3310485-5 05/16/18 19:00 • (MSD) R3310485-6 05/16/18 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 %
2,2-Dichloropropane	25.0	U	31.4	32.9	126	132	1	43.0-139			4.67	20
Di-isopropyl ether	25.0	U	34.3	35.1	137	140	1	44.0-144			2.21	20
Ethylbenzene	25.0	U	25.8	26.0	103	104	1	42.0-147			0.890	20
Hexachloro-1,3-butadiene	25.0	U	14.7	17.8	58.7	71.2	1	44.0-146			19.2	21
n-Hexane	25.0	U	30.2	30.7	121	123	1	13.0-145			1.72	20
Isopropylbenzene	25.0	U	31.3	31.8	125	127	1	48.0-141			1.82	20
p-Isopropyltoluene	25.0	U	25.3	26.3	101	105	1	49.0-146			3.70	20
2-Butanone (MEK)	125	U	145	152	116	122	1	12.0-149			4.86	24
Methylene Chloride	25.0	U	28.0	28.6	112	115	1	42.0-135			2.33	20
4-Methyl-2-pentanone (MIBK)	125	U	139	142	111	113	1	44.0-160			1.86	22
Methyl tert-butyl ether	25.0	U	28.3	29.0	113	116	1	42.0-142			2.46	20
Naphthalene	25.0	U	19.8	23.4	79.1	93.5	1	42.0-146			16.7	24
Vinyl acetate	125	U	191	196	153	157	1	30.0-160			2.63	20
n-Propylbenzene	25.0	U	31.3	31.8	125	127	1	47.0-144			1.59	20
Styrene	25.0	U	32.1	33.0	129	132	1	47.0-147			2.61	20
1,1,1,2-Tetrachloroethane	25.0	U	24.6	25.1	98.5	100	1	52.0-140			1.94	20
1,1,2,2-Tetrachloroethane	25.0	U	29.0	29.8	116	119	1	46.0-149			3.00	20
Tetrachloroethene	25.0	34.2	63.4	63.5	117	117	1	38.0-147			0.0884	20
Toluene	25.0	U	27.0	27.5	108	110	1	42.0-141			1.71	20
1,1,2-Trichlorotrifluoroethane	25.0	U	36.7	37.3	147	149	1	40.0-151			1.56	21
1,2,3-Trichlorobenzene	25.0	U	16.6	19.8	66.2	79.3	1	45.0-145			18.0	22
1,2,4-Trichlorobenzene	25.0	U	17.9	20.5	71.8	82.1	1	49.0-147			13.3	21
1,1,1-Trichloroethane	25.0	U	29.9	30.7	120	123	1	46.0-140			2.68	20
1,1,2-Trichloroethane	25.0	U	24.0	24.0	96.2	96.2	1	54.0-139			0.0319	20
Trichloroethene	25.0	4.97	31.7	32.7	107	111	1	32.0-156			3.20	20
Trichlorofluoromethane	25.0	U	32.7	33.5	131	134	1	32.0-152			2.29	20
1,2,3-Trichloropropane	25.0	U	28.5	29.7	114	119	1	54.0-143			4.21	21
1,2,3-Trimethylbenzene	25.0	U	27.4	28.8	110	115	1	48.0-138			5.01	20
1,2,4-Trimethylbenzene	25.0	U	28.3	29.2	113	117	1	41.0-146			3.11	20
1,3,5-Trimethylbenzene	25.0	U	29.2	29.7	117	119	1	44.0-143			1.73	20
Vinyl chloride	25.0	U	28.4	29.8	114	119	1	24.0-153			4.58	20
Xylenes, Total	75.0	U	77.8	79.1	104	105	1	41.0-148			1.66	20
(S) Toluene-d8					92.9	91.8		80.0-120				
(S) Dibromofluoromethane					105	105		76.0-123				
(S) 4-Bromofluorobenzene					111	110		80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993585-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993585-02 05/16/18 18:39 • (MS) R3310485-7 05/16/18 19:44 • (MSD) R3310485-8 05/16/18 20:05

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 %
Bromochloromethane	25.0	U	30.5	31.2	122	125	1	53.0-138			2.49	20
Acetone	125	U	109	120	87.1	96.0	1	10.0-139			9.71	25
Acrylonitrile	125	U	142	165	114	132	1	46.0-159			15.0	23
Benzene	25.0	U	32.1	32.4	128	129	1	34.0-147			0.791	20
Bromobenzene	25.0	U	32.3	31.8	129	127	1	51.0-137			1.40	20
Bromodichloromethane	25.0	U	28.3	28.2	113	113	1	52.0-135			0.109	20
Bromoform	25.0	U	28.8	29.1	115	116	1	50.0-146			0.914	20
Bromomethane	25.0	U	25.0	24.2	100	96.8	1	10.0-160			3.30	23
n-Butylbenzene	25.0	U	25.9	25.6	104	103	1	50.0-144			1.04	20
sec-Butylbenzene	25.0	U	30.0	29.3	120	117	1	48.0-143			2.35	20
tert-Butylbenzene	25.0	U	29.8	29.1	119	116	1	50.0-142			2.36	20
trans-1,4-Dichloro-2-butene	25.0	U	38.8	38.9	155	156	1	40.0-150	J5	J5	0.185	21
Carbon disulfide	25.0	U	30.7	30.8	123	123	1	10.0-147			0.279	20
Carbon tetrachloride	25.0	U	31.6	32.1	126	128	1	41.0-138			1.63	20
Chlorobenzene	25.0	U	27.8	27.4	111	110	1	52.0-141			1.26	20
Chlorodibromomethane	25.0	U	26.0	26.5	104	106	1	54.0-142			1.93	20
Chloroethane	25.0	U	26.2	25.1	105	101	1	23.0-160			4.02	20
Chloroform	25.0	U	30.0	30.3	120	121	1	50.0-139			1.10	20
Chloromethane	25.0	U	36.2	36.1	145	144	1	14.0-151			0.400	20
2-Chlorotoluene	25.0	U	32.7	32.4	131	130	1	48.0-142			0.783	20
4-Chlorotoluene	25.0	U	32.5	32.0	130	128	1	52.0-139			1.63	20
1,2-Dibromo-3-Chloropropane	25.0	U	24.9	25.4	99.4	101	1	49.0-144			2.05	24
1,2-Dibromoethane	25.0	U	27.1	26.5	108	106	1	54.0-140			2.23	20
Dibromomethane	25.0	U	30.0	30.1	120	120	1	53.0-138			0.153	20
1,2-Dichlorobenzene	25.0	U	28.4	28.2	114	113	1	56.0-139			0.821	20
1,3-Dichlorobenzene	25.0	U	29.7	29.6	119	118	1	50.0-141			0.537	20
1,4-Dichlorobenzene	25.0	U	29.3	29.3	117	117	1	53.0-136			0.216	20
Dichlorodifluoromethane	25.0	U	32.2	32.8	129	131	1	20.0-160			1.99	21
2-Hexanone	125	U	136	136	109	109	1	36.0-145			0.254	23
1,1-Dichloroethane	25.0	U	35.5	35.7	142	143	1	47.0-143			0.430	20
1,2-Dichloroethane	25.0	U	32.8	33.6	131	134	1	47.0-141			2.52	20
Iodomethane	125	U	148	151	118	121	1	30.0-151			2.05	20
1,1-Dichloroethene	25.0	U	29.4	30.0	118	120	1	31.0-148			1.84	20
cis-1,2-Dichloroethene	25.0	1.81	30.8	31.2	116	117	1	43.0-142			1.38	20
trans-1,2-Dichloroethene	25.0	U	30.6	30.8	122	123	1	36.0-141			0.763	20
1,2-Dichloropropane	25.0	U	32.1	32.7	128	131	1	51.0-141			1.75	20
1,1-Dichloropropene	25.0	U	36.4	36.3	146	145	1	42.0-146			0.131	20
1,3-Dichloropropane	25.0	U	30.3	29.8	121	119	1	58.0-139			1.46	20
cis-1,3-Dichloropropene	25.0	U	29.5	29.1	118	116	1	53.0-139			1.40	20
trans-1,3-Dichloropropene	25.0	U	29.6	29.5	118	118	1	51.0-143			0.376	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L993585-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L993585-02 05/16/18 18:39 • (MS) R3310485-7 05/16/18 19:44 • (MSD) R3310485-8 05/16/18 20:05

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 %
2,2-Dichloropropane	25.0	U	34.0	34.2	136	137	1	43.0-139			0.583	20
Di-isopropyl ether	25.0	U	36.0	36.0	144	144	1	44.0-144			0.181	20
Ethylbenzene	25.0	U	27.3	26.9	109	108	1	42.0-147			1.41	20
Hexachloro-1,3-butadiene	25.0	U	17.2	17.6	69.0	70.3	1	44.0-146			1.90	21
n-Hexane	25.0	U	30.6	30.5	122	122	1	13.0-145			0.0647	20
Isopropylbenzene	25.0	U	33.0	32.7	132	131	1	48.0-141			0.899	20
p-Isopropyltoluene	25.0	U	27.5	26.8	110	107	1	49.0-146			2.36	20
2-Butanone (MEK)	125	U	152	157	122	125	1	12.0-149			2.86	24
Methylene Chloride	25.0	U	28.7	29.2	115	117	1	42.0-135			1.43	20
4-Methyl-2-pentanone (MIBK)	125	U	150	149	120	119	1	44.0-160			1.11	22
Methyl tert-butyl ether	25.0	U	30.5	31.0	122	124	1	42.0-142			1.50	20
Naphthalene	25.0	U	24.1	23.6	96.5	94.3	1	42.0-146			2.37	24
Vinyl acetate	125	U	199	198	159	159	1	30.0-160			0.220	20
n-Propylbenzene	25.0	U	32.6	32.1	130	128	1	47.0-144			1.36	20
Styrene	25.0	U	32.6	32.3	130	129	1	47.0-147			0.656	20
1,1,1,2-Tetrachloroethane	25.0	U	27.4	26.5	110	106	1	52.0-140			3.29	20
1,1,2,2-Tetrachloroethane	25.0	U	30.6	30.1	123	120	1	46.0-149			1.88	20
Tetrachloroethene	25.0	1.66	29.3	29.8	111	112	1	38.0-147			1.53	20
Toluene	25.0	U	28.5	28.2	114	113	1	42.0-141			1.11	20
1,1,2-Trichlorotrifluoroethane	25.0	U	37.6	38.6	150	154	1	40.0-151		J5	2.65	21
1,2,3-Trichlorobenzene	25.0	U	20.0	19.1	79.9	76.3	1	45.0-145			4.53	22
1,2,4-Trichlorobenzene	25.0	U	20.6	19.8	82.5	79.2	1	49.0-147			4.19	21
1,1,1-Trichloroethane	25.0	U	32.0	32.6	128	131	1	46.0-140			2.13	20
1,1,2-Trichloroethane	25.0	U	25.6	25.1	102	100	1	54.0-139			2.11	20
Trichloroethene	25.0	4.07	31.6	32.4	110	113	1	32.0-156			2.47	20
Trichlorofluoromethane	25.0	U	34.1	34.5	136	138	1	32.0-152			1.33	20
1,2,3-Trichloropropane	25.0	U	31.8	30.9	127	124	1	54.0-143			2.80	21
1,2,3-Trimethylbenzene	25.0	U	29.5	29.4	118	117	1	48.0-138			0.403	20
1,2,4-Trimethylbenzene	25.0	U	30.1	29.3	120	117	1	41.0-146			2.60	20
1,3,5-Trimethylbenzene	25.0	U	30.8	30.3	123	121	1	44.0-143			1.50	20
Vinyl chloride	25.0	U	29.7	30.3	119	121	1	24.0-153			1.77	20
Xylenes, Total	75.0	U	82.4	82.6	110	110	1	41.0-148			0.242	20
(S) Toluene-d8					93.8	93.1		80.0-120				
(S) Dibromofluoromethane					104	105		76.0-123				
(S) 4-Bromofluorobenzene					110	108		80.0-120				

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



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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

Qualifier	Description
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.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

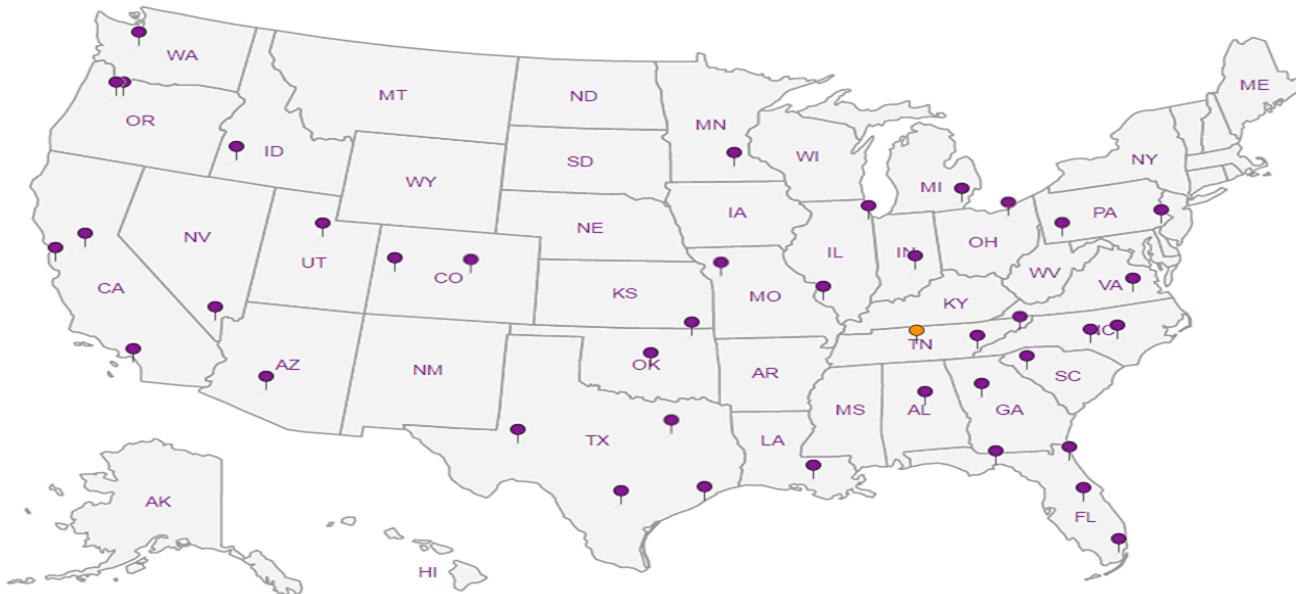
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹Drinking Water ²Underground Storage Tanks ³Aquatic Toxicity ⁴Chemical/Microbiological ⁵Mold ⁶Wastewater 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.
1215 4th AVE STE 1350
SEATTLE, WA 98161

Billing Information:
Attn: Accounts Payable
PES ENVIRONMENTAL, INC.
1215 4th AVE STE 1350
SEATTLE, WA 98161

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2



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:
B.Haldeman@pesenvi.com

Project
Description: AMERICAN LINEN

City/State
Collected: Seattle, WA

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

Client Project #
1413.001.05.601

Lab Project #

Collected by (print):
Karsten Springstead

Site/Facility ID #
1413.001.05.601

P.O. #
1413.001.05.601

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 X

No.
of
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	Pres	Chk
MW-161-11	Grab	SS	11	5-14-18	945	5	X	X
MW-161-21			21		1000	5	X	X
MW-161-31			31		1020	5	X	X
MW-161-40			40		1055	5	X	X
MW-161-50			50		1125	5	X	X
MW-161-60			60		1140	5	X	X
MW-161-70			70		1300	5	X	X
MW-161-80			80		1330	5	X	X
MW-161-90			90		1425	5	X	X
B-927-30			30		800	5	X	X

V8260C VOLs 40ml/NaHSO4/5yr MeOH
dry wt, vol screen 2oz Clr-No Pres

L# L993885
E237

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks Sample # (lab only)

* 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:

5-14-18

Time:

1600

Received by: (Signature)

Trip Blank Received: Yes/No

HCL/ MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: 1.32 °C Bottles Received: 71

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: 5/15/18

Time: 845

Hold:

Condition:
NCF / OK

PES ENVIRONMENTAL INC.
1215 4th AVE STE 1350
SEATTLE, WA 98161

Billing Information:
Attn: Accounts Payable
PES ENVIRONMENTAL, INC.
1215 4th AVE STE 1350
Seattle, WA 98161

Analysis / Container / Preservative

Chain of Custody Page 2 of 2



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: B.Haldeman@pesenv.com

Project Description: American Lichen

City/State Collected: Seattle, WA

Phone: 206-529-3490
Fax: 206-529-3985

Client Project #
1413.001.05.601

Lab Project #

Collected by (print): Karsten Springstead

Site/Facility ID #
1413.001.05.601

P.O. #
1413.001.05.601

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												
MW-161-100	Grab	SS	100	5-14-18	1435	5	X	X										
MW-161-110	↓	↓	110	↓	1450	5	X	X										
MW-161-120	↓	↓	120	↓	1510	5	X	X										
MW-161-130	↓	↓	130	↓	1545	5	X	X										
TRIP BLANK 051418	-	-	-	-	-	1	X											

V8260C VOCs 40ml NaHSO4 / 50ml MeOH
 dry wt, VOC Screen 2oz Air Nohes

L# L 993885
Table #
Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:
Remarks Sample # (lab only)

* 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
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature) [Signature]

Date: 5-14-18
Time: 1600

Received by: (Signature)

Trip Blank Received: Yes/No
HCL/ MeOH
TBR
Temp: 13.2 °C
Bottles Received: 71

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Received for lab by: (Signature) [Signature]

Date: 5/15/18
Time: 845

Hold: Condition: NCF (OK)



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.3		1	05/17/2018 13:51	WG1112648

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0307	1	05/16/2018 00:16	WG1111817	
Acrylonitrile	ND		0.0154	1	05/16/2018 00:16	WG1111817	
Benzene	ND		0.00123	1	05/16/2018 00:16	WG1111817	
Bromobenzene	ND		0.0154	1	05/16/2018 00:16	WG1111817	
Bromodichloromethane	ND		0.00307	1	05/16/2018 00:16	WG1111817	
Bromoform	ND		0.0307	1	05/16/2018 00:16	WG1111817	
Bromomethane	ND		0.0154	1	05/16/2018 00:16	WG1111817	
n-Butylbenzene	ND		0.0154	1	05/16/2018 00:16	WG1111817	
sec-Butylbenzene	ND		0.0154	1	05/16/2018 00:16	WG1111817	
tert-Butylbenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817	
Carbon tetrachloride	ND		0.00615	1	05/16/2018 00:16	WG1111817	
Chlorobenzene	ND		0.00307	1	05/16/2018 00:16	WG1111817	
Chlorodibromomethane	ND		0.00307	1	05/16/2018 00:16	WG1111817	
Chloroethane	ND		0.00615	1	05/16/2018 00:16	WG1111817	
Chloroform	ND		0.00307	1	05/16/2018 00:16	WG1111817	
Chloromethane	ND		0.0154	1	05/16/2018 00:16	WG1111817	
2-Chlorotoluene	ND		0.00307	1	05/16/2018 00:16	WG1111817	
4-Chlorotoluene	ND		0.00615	1	05/16/2018 00:16	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0307	1	05/16/2018 00:16	WG1111817	
1,2-Dibromoethane	ND		0.00307	1	05/16/2018 00:16	WG1111817	
Dibromomethane	ND		0.00615	1	05/16/2018 00:16	WG1111817	
1,2-Dichlorobenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817	
1,3-Dichlorobenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817	
1,4-Dichlorobenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817	
Dichlorodifluoromethane	ND		0.00307	1	05/16/2018 00:16	WG1111817	
1,1-Dichloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817	
1,2-Dichloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817	
1,1-Dichloroethene	ND		0.00307	1	05/16/2018 00:16	WG1111817	
cis-1,2-Dichloroethene	0.00563		0.00307	1	05/16/2018 00:16	WG1111817	
trans-1,2-Dichloroethene	ND		0.00615	1	05/16/2018 00:16	WG1111817	
1,2-Dichloropropane	ND		0.00615	1	05/16/2018 00:16	WG1111817	
1,1-Dichloropropene	ND		0.00307	1	05/16/2018 00:16	WG1111817	
1,3-Dichloropropane	ND	<u>J4</u>	0.00615	1	05/16/2018 00:16	WG1111817	
cis-1,3-Dichloropropene	ND		0.00307	1	05/16/2018 00:16	WG1111817	
trans-1,3-Dichloropropene	ND		0.00615	1	05/16/2018 00:16	WG1111817	
2,2-Dichloropropane	ND		0.00307	1	05/16/2018 00:16	WG1111817	
Di-isopropyl ether	ND		0.00123	1	05/16/2018 00:16	WG1111817	
Ethylbenzene	ND		0.00307	1	05/16/2018 00:16	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0307	1	05/16/2018 00:16	WG1111817	
Isopropylbenzene	ND		0.00307	1	05/16/2018 00:16	WG1111817	
p-Isopropyltoluene	ND		0.00615	1	05/16/2018 00:16	WG1111817	
2-Butanone (MEK)	ND		0.0307	1	05/16/2018 00:16	WG1111817	
Methylene Chloride	ND		0.0307	1	05/16/2018 00:16	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0307	1	05/16/2018 00:16	WG1111817	
Methyl tert-butyl ether	ND	UJ	<u>JO J4</u>	0.00123	1	05/16/2018 00:16	WG1111817
Naphthalene	ND		0.0154	1	05/16/2018 00:16	WG1111817	
n-Propylbenzene	ND	UJ	<u>J4</u>	0.00615	1	05/16/2018 00:16	WG1111817
Styrene	ND		0.0154	1	05/16/2018 00:16	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
Tetrachloroethene	0.00523		0.00307	1	05/16/2018 00:16	WG1111817
Toluene	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,2,3-Trichlorobenzene	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,2,4-Trichlorobenzene	ND		0.0154	1	05/16/2018 00:16	WG1111817
1,1,1-Trichloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,1,2-Trichloroethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
Trichloroethene	ND		0.00123	1	05/16/2018 00:16	WG1111817
Trichlorofluoromethane	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,2,3-Trichloropropane	ND		0.0154	1	05/16/2018 00:16	WG1111817
1,2,4-Trimethylbenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
1,2,3-Trimethylbenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
Vinyl chloride	ND		0.00307	1	05/16/2018 00:16	WG1111817
1,3,5-Trimethylbenzene	ND		0.00615	1	05/16/2018 00:16	WG1111817
Xylenes, Total	ND		0.00799	1	05/16/2018 00:16	WG1111817
(S) Toluene-d8	110		80.0-120		05/16/2018 00:16	WG1111817
(S) Dibromofluoromethane	95.9		74.0-131		05/16/2018 00:16	WG1111817
(S) 4-Bromofluorobenzene	100		64.0-132		05/16/2018 00:16	WG1111817

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.2		1	05/17/2018 13:51	WG1112648

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0260	1	05/16/2018 00:36	WG1111817	
Acrylonitrile	ND		0.0130	1	05/16/2018 00:36	WG1111817	
Benzene	ND		0.00104	1	05/16/2018 00:36	WG1111817	
Bromobenzene	ND		0.0130	1	05/16/2018 00:36	WG1111817	
Bromodichloromethane	ND		0.00260	1	05/16/2018 00:36	WG1111817	
Bromoform	ND		0.0260	1	05/16/2018 00:36	WG1111817	
Bromomethane	ND		0.0130	1	05/16/2018 00:36	WG1111817	
n-Butylbenzene	ND		0.0130	1	05/16/2018 00:36	WG1111817	
sec-Butylbenzene	ND		0.0130	1	05/16/2018 00:36	WG1111817	
tert-Butylbenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817	
Carbon tetrachloride	ND		0.00520	1	05/16/2018 00:36	WG1111817	
Chlorobenzene	ND		0.00260	1	05/16/2018 00:36	WG1111817	
Chlorodibromomethane	ND		0.00260	1	05/16/2018 00:36	WG1111817	
Chloroethane	ND		0.00520	1	05/16/2018 00:36	WG1111817	
Chloroform	ND		0.00260	1	05/16/2018 00:36	WG1111817	
Chloromethane	ND		0.0130	1	05/16/2018 00:36	WG1111817	
2-Chlorotoluene	ND		0.00260	1	05/16/2018 00:36	WG1111817	
4-Chlorotoluene	ND		0.00520	1	05/16/2018 00:36	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0260	1	05/16/2018 00:36	WG1111817	
1,2-Dibromoethane	ND		0.00260	1	05/16/2018 00:36	WG1111817	
Dibromomethane	ND		0.00520	1	05/16/2018 00:36	WG1111817	
1,2-Dichlorobenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817	
1,3-Dichlorobenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817	
1,4-Dichlorobenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817	
Dichlorodifluoromethane	ND		0.00260	1	05/16/2018 00:36	WG1111817	
1,1-Dichloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817	
1,2-Dichloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817	
1,1-Dichloroethene	ND		0.00260	1	05/16/2018 00:36	WG1111817	
cis-1,2-Dichloroethene	0.00364		0.00260	1	05/16/2018 00:36	WG1111817	
trans-1,2-Dichloroethene	ND		0.00520	1	05/16/2018 00:36	WG1111817	
1,2-Dichloropropane	ND		0.00520	1	05/16/2018 00:36	WG1111817	
1,1-Dichloropropene	ND		0.00260	1	05/16/2018 00:36	WG1111817	
1,3-Dichloropropane	ND	<u>J4</u>	0.00520	1	05/16/2018 00:36	WG1111817	
cis-1,3-Dichloropropene	ND		0.00260	1	05/16/2018 00:36	WG1111817	
trans-1,3-Dichloropropene	ND		0.00520	1	05/16/2018 00:36	WG1111817	
2,2-Dichloropropane	ND		0.00260	1	05/16/2018 00:36	WG1111817	
Di-isopropyl ether	ND		0.00104	1	05/16/2018 00:36	WG1111817	
Ethylbenzene	ND		0.00260	1	05/16/2018 00:36	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0260	1	05/16/2018 00:36	WG1111817	
Isopropylbenzene	ND		0.00260	1	05/16/2018 00:36	WG1111817	
p-Isopropyltoluene	ND		0.00520	1	05/16/2018 00:36	WG1111817	
2-Butanone (MEK)	ND		0.0260	1	05/16/2018 00:36	WG1111817	
Methylene Chloride	ND		0.0260	1	05/16/2018 00:36	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0260	1	05/16/2018 00:36	WG1111817	
Methyl tert-butyl ether	ND	<u>UJ</u>	<u>JO J4</u>	0.00104	1	05/16/2018 00:36	WG1111817
Naphthalene	ND		0.0130	1	05/16/2018 00:36	WG1111817	
n-Propylbenzene	ND	<u>UJ</u>	<u>J4</u>	0.00520	1	05/16/2018 00:36	WG1111817
Styrene	ND		0.0130	1	05/16/2018 00:36	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817	

JC 6/14/18

- 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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
Tetrachloroethene	ND		0.00260	1	05/16/2018 00:36	WG1111817
Toluene	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,2,3-Trichlorobenzene	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,2,4-Trichlorobenzene	ND		0.0130	1	05/16/2018 00:36	WG1111817
1,1,1-Trichloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,1,2-Trichloroethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
Trichloroethene	ND		0.00104	1	05/16/2018 00:36	WG1111817
Trichlorofluoromethane	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,2,3-Trichloropropane	ND		0.0130	1	05/16/2018 00:36	WG1111817
1,2,4-Trimethylbenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
1,2,3-Trimethylbenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
Vinyl chloride	ND		0.00260	1	05/16/2018 00:36	WG1111817
1,3,5-Trimethylbenzene	ND		0.00520	1	05/16/2018 00:36	WG1111817
Xylenes, Total	ND		0.00676	1	05/16/2018 00:36	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 00:36	WG1111817
(S) Dibromofluoromethane	96.2		74.0-131		05/16/2018 00:36	WG1111817
(S) 4-Bromofluorobenzene	100		64.0-132		05/16/2018 00:36	WG1111817

- 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	Batch
	%			date / time	
Total Solids	87.4		1	05/17/2018 13:51	WG1112648

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0286	1	05/16/2018 00:56	WG1111817
Acrylonitrile	ND		0.0143	1	05/16/2018 00:56	WG1111817
Benzene	ND		0.00114	1	05/16/2018 00:56	WG1111817
Bromobenzene	ND		0.0143	1	05/16/2018 00:56	WG1111817
Bromodichloromethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Bromoform	ND		0.0286	1	05/16/2018 00:56	WG1111817
Bromomethane	ND		0.0143	1	05/16/2018 00:56	WG1111817
n-Butylbenzene	ND		0.0143	1	05/16/2018 00:56	WG1111817
sec-Butylbenzene	ND		0.0143	1	05/16/2018 00:56	WG1111817
tert-Butylbenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
Carbon tetrachloride	ND		0.00572	1	05/16/2018 00:56	WG1111817
Chlorobenzene	ND		0.00286	1	05/16/2018 00:56	WG1111817
Chlorodibromomethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Chloroethane	ND		0.00572	1	05/16/2018 00:56	WG1111817
Chloroform	ND		0.00286	1	05/16/2018 00:56	WG1111817
Chloromethane	ND		0.0143	1	05/16/2018 00:56	WG1111817
2-Chlorotoluene	ND		0.00286	1	05/16/2018 00:56	WG1111817
4-Chlorotoluene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0286	1	05/16/2018 00:56	WG1111817
1,2-Dibromoethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Dibromomethane	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2-Dichlorobenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,3-Dichlorobenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,4-Dichlorobenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
Dichlorodifluoromethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,1-Dichloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,2-Dichloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,1-Dichloroethene	ND		0.00286	1	05/16/2018 00:56	WG1111817
cis-1,2-Dichloroethene	0.00387		0.00286	1	05/16/2018 00:56	WG1111817
trans-1,2-Dichloroethene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2-Dichloropropane	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,1-Dichloropropene	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00572	1	05/16/2018 00:56	WG1111817
cis-1,3-Dichloropropene	ND		0.00286	1	05/16/2018 00:56	WG1111817
trans-1,3-Dichloropropene	ND		0.00572	1	05/16/2018 00:56	WG1111817
2,2-Dichloropropane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Di-isopropyl ether	ND		0.00114	1	05/16/2018 00:56	WG1111817
Ethylbenzene	ND		0.00286	1	05/16/2018 00:56	WG1111817
Hexachloro-1,3-butadiene	ND		0.0286	1	05/16/2018 00:56	WG1111817
Isopropylbenzene	ND		0.00286	1	05/16/2018 00:56	WG1111817
p-Isopropyltoluene	ND		0.00572	1	05/16/2018 00:56	WG1111817
2-Butanone (MEK)	ND		0.0286	1	05/16/2018 00:56	WG1111817
Methylene Chloride	ND		0.0286	1	05/16/2018 00:56	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0286	1	05/16/2018 00:56	WG1111817
Methyl tert-butyl ether	ND	<u>UJ</u>	0.00114	1	05/16/2018 00:56	WG1111817
Naphthalene	ND		0.0143	1	05/16/2018 00:56	WG1111817
n-Propylbenzene	ND	<u>UJ</u>	0.00572	1	05/16/2018 00:56	WG1111817
Styrene	ND		0.0143	1	05/16/2018 00:56	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Tetrachloroethene	0.0159		0.00286	1	05/16/2018 00:56	WG1111817
Toluene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2,3-Trichlorobenzene	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,2,4-Trichlorobenzene	ND		0.0143	1	05/16/2018 00:56	WG1111817
1,1,1-Trichloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,1,2-Trichloroethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
Trichloroethene	0.00196		0.00114	1	05/16/2018 00:56	WG1111817
Trichlorofluoromethane	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,2,3-Trichloropropane	ND		0.0143	1	05/16/2018 00:56	WG1111817
1,2,4-Trimethylbenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
1,2,3-Trimethylbenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
Vinyl chloride	ND		0.00286	1	05/16/2018 00:56	WG1111817
1,3,5-Trimethylbenzene	ND		0.00572	1	05/16/2018 00:56	WG1111817
Xylenes, Total	ND		0.00744	1	05/16/2018 00:56	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 00:56	WG1111817
(S) Dibromofluoromethane	95.3		74.0-131		05/16/2018 00:56	WG1111817
(S) 4-Bromofluorobenzene	100		64.0-132		05/16/2018 00:56	WG1111817

- 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	Batch
	%			date / time	
Total Solids	90.6		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0276	1	05/16/2018 01:15	WG1111817
Acrylonitrile	ND		0.0138	1	05/16/2018 01:15	WG1111817
Benzene	ND		0.00110	1	05/16/2018 01:15	WG1111817
Bromobenzene	ND		0.0138	1	05/16/2018 01:15	WG1111817
Bromodichloromethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Bromoform	ND		0.0276	1	05/16/2018 01:15	WG1111817
Bromomethane	ND		0.0138	1	05/16/2018 01:15	WG1111817
n-Butylbenzene	ND		0.0138	1	05/16/2018 01:15	WG1111817
sec-Butylbenzene	ND		0.0138	1	05/16/2018 01:15	WG1111817
tert-Butylbenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
Carbon tetrachloride	ND		0.00552	1	05/16/2018 01:15	WG1111817
Chlorobenzene	ND		0.00276	1	05/16/2018 01:15	WG1111817
Chlorodibromomethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Chloroethane	ND		0.00552	1	05/16/2018 01:15	WG1111817
Chloroform	ND		0.00276	1	05/16/2018 01:15	WG1111817
Chloromethane	ND		0.0138	1	05/16/2018 01:15	WG1111817
2-Chlorotoluene	ND		0.00276	1	05/16/2018 01:15	WG1111817
4-Chlorotoluene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0276	1	05/16/2018 01:15	WG1111817
1,2-Dibromoethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Dibromomethane	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2-Dichlorobenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,3-Dichlorobenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,4-Dichlorobenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
Dichlorodifluoromethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,1-Dichloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,2-Dichloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,1-Dichloroethene	ND		0.00276	1	05/16/2018 01:15	WG1111817
cis-1,2-Dichloroethene	0.376		0.00276	1	05/16/2018 01:15	WG1111817
trans-1,2-Dichloroethene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2-Dichloropropane	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,1-Dichloropropene	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00552	1	05/16/2018 01:15	WG1111817
cis-1,3-Dichloropropene	ND		0.00276	1	05/16/2018 01:15	WG1111817
trans-1,3-Dichloropropene	ND		0.00552	1	05/16/2018 01:15	WG1111817
2,2-Dichloropropane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Di-isopropyl ether	ND		0.00110	1	05/16/2018 01:15	WG1111817
Ethylbenzene	ND		0.00276	1	05/16/2018 01:15	WG1111817
Hexachloro-1,3-butadiene	ND		0.0276	1	05/16/2018 01:15	WG1111817
Isopropylbenzene	ND		0.00276	1	05/16/2018 01:15	WG1111817
p-Isopropyltoluene	ND		0.00552	1	05/16/2018 01:15	WG1111817
2-Butanone (MEK)	ND		0.0276	1	05/16/2018 01:15	WG1111817
Methylene Chloride	ND		0.0276	1	05/16/2018 01:15	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0276	1	05/16/2018 01:15	WG1111817
Methyl tert-butyl ether	ND	<u>UJ</u>	0.00110	1	05/16/2018 01:15	WG1111817
Naphthalene	ND		0.0138	1	05/16/2018 01:15	WG1111817
n-Propylbenzene	ND	<u>UJ</u>	0.00552	1	05/16/2018 01:15	WG1111817
Styrene	ND		0.0138	1	05/16/2018 01:15	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817

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

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Tetrachloroethene	0.00438		0.00276	1	05/16/2018 01:15	WG1111817
Toluene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2,3-Trichlorobenzene	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,2,4-Trichlorobenzene	ND		0.0138	1	05/16/2018 01:15	WG1111817
1,1,1-Trichloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,1,2-Trichloroethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
Trichloroethene	0.00132		0.00110	1	05/16/2018 01:15	WG1111817
Trichlorofluoromethane	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,2,3-Trichloropropane	ND		0.0138	1	05/16/2018 01:15	WG1111817
1,2,4-Trimethylbenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
1,2,3-Trimethylbenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
Vinyl chloride	ND		0.00276	1	05/16/2018 01:15	WG1111817
1,3,5-Trimethylbenzene	ND		0.00552	1	05/16/2018 01:15	WG1111817
Xylenes, Total	ND		0.00717	1	05/16/2018 01:15	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 01:15	WG1111817
(S) Dibromofluoromethane	95.0		74.0-131		05/16/2018 01:15	WG1111817
(S) 4-Bromofluorobenzene	97.2		64.0-132		05/16/2018 01:15	WG1111817

- 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	Batch
	%			date / time	
Total Solids	89.6		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0279	1	05/16/2018 01:35	WG1111817
Acrylonitrile	ND		0.0139	1	05/16/2018 01:35	WG1111817
Benzene	ND		0.00112	1	05/16/2018 01:35	WG1111817
Bromobenzene	ND		0.0139	1	05/16/2018 01:35	WG1111817
Bromodichloromethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Bromoform	ND		0.0279	1	05/16/2018 01:35	WG1111817
Bromomethane	ND		0.0139	1	05/16/2018 01:35	WG1111817
n-Butylbenzene	ND		0.0139	1	05/16/2018 01:35	WG1111817
sec-Butylbenzene	ND		0.0139	1	05/16/2018 01:35	WG1111817
tert-Butylbenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
Carbon tetrachloride	ND		0.00558	1	05/16/2018 01:35	WG1111817
Chlorobenzene	ND		0.00279	1	05/16/2018 01:35	WG1111817
Chlorodibromomethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Chloroethane	ND		0.00558	1	05/16/2018 01:35	WG1111817
Chloroform	ND		0.00279	1	05/16/2018 01:35	WG1111817
Chloromethane	ND		0.0139	1	05/16/2018 01:35	WG1111817
2-Chlorotoluene	ND		0.00279	1	05/16/2018 01:35	WG1111817
4-Chlorotoluene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0279	1	05/16/2018 01:35	WG1111817
1,2-Dibromoethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Dibromomethane	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2-Dichlorobenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,3-Dichlorobenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,4-Dichlorobenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
Dichlorodifluoromethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,1-Dichloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,2-Dichloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,1-Dichloroethene	ND		0.00279	1	05/16/2018 01:35	WG1111817
cis-1,2-Dichloroethene	0.0356		0.00279	1	05/16/2018 01:35	WG1111817
trans-1,2-Dichloroethene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2-Dichloropropane	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,1-Dichloropropene	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00558	1	05/16/2018 01:35	WG1111817
cis-1,3-Dichloropropene	ND		0.00279	1	05/16/2018 01:35	WG1111817
trans-1,3-Dichloropropene	ND		0.00558	1	05/16/2018 01:35	WG1111817
2,2-Dichloropropane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Di-isopropyl ether	ND		0.00112	1	05/16/2018 01:35	WG1111817
Ethylbenzene	ND		0.00279	1	05/16/2018 01:35	WG1111817
Hexachloro-1,3-butadiene	ND		0.0279	1	05/16/2018 01:35	WG1111817
Isopropylbenzene	ND		0.00279	1	05/16/2018 01:35	WG1111817
p-Isopropyltoluene	ND		0.00558	1	05/16/2018 01:35	WG1111817
2-Butanone (MEK)	ND		0.0279	1	05/16/2018 01:35	WG1111817
Methylene Chloride	ND		0.0279	1	05/16/2018 01:35	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0279	1	05/16/2018 01:35	WG1111817
Methyl tert-butyl ether	ND	<u>UJ</u>	0.00112	1	05/16/2018 01:35	WG1111817
Naphthalene	ND		0.0139	1	05/16/2018 01:35	WG1111817
n-Propylbenzene	ND	<u>UJ</u>	0.00558	1	05/16/2018 01:35	WG1111817
Styrene	ND		0.0139	1	05/16/2018 01:35	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817

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

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Tetrachloroethene	0.0173		0.00279	1	05/16/2018 01:35	WG1111817
Toluene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2,3-Trichlorobenzene	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,2,4-Trichlorobenzene	ND		0.0139	1	05/16/2018 01:35	WG1111817
1,1,1-Trichloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,1,2-Trichloroethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
Trichloroethene	0.00956		0.00112	1	05/16/2018 01:35	WG1111817
Trichlorofluoromethane	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,2,3-Trichloropropane	ND		0.0139	1	05/16/2018 01:35	WG1111817
1,2,4-Trimethylbenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
1,2,3-Trimethylbenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
Vinyl chloride	ND		0.00279	1	05/16/2018 01:35	WG1111817
1,3,5-Trimethylbenzene	ND		0.00558	1	05/16/2018 01:35	WG1111817
Xylenes, Total	ND		0.00725	1	05/16/2018 01:35	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 01:35	WG1111817
(S) Dibromofluoromethane	95.1		74.0-131		05/16/2018 01:35	WG1111817
(S) 4-Bromofluorobenzene	99.7		64.0-132		05/16/2018 01:35	WG1111817

- 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	Batch
	%			date / time	
Total Solids	87.6		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0286	1	05/16/2018 01:55	WG1111817	
Acrylonitrile	ND		0.0143	1	05/16/2018 01:55	WG1111817	
Benzene	ND		0.00114	1	05/16/2018 01:55	WG1111817	
Bromobenzene	ND		0.0143	1	05/16/2018 01:55	WG1111817	
Bromodichloromethane	ND		0.00286	1	05/16/2018 01:55	WG1111817	
Bromoform	ND		0.0286	1	05/16/2018 01:55	WG1111817	
Bromomethane	ND		0.0143	1	05/16/2018 01:55	WG1111817	
n-Butylbenzene	ND		0.0143	1	05/16/2018 01:55	WG1111817	
sec-Butylbenzene	ND		0.0143	1	05/16/2018 01:55	WG1111817	
tert-Butylbenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817	
Carbon tetrachloride	ND		0.00571	1	05/16/2018 01:55	WG1111817	
Chlorobenzene	ND		0.00286	1	05/16/2018 01:55	WG1111817	
Chlorodibromomethane	ND		0.00286	1	05/16/2018 01:55	WG1111817	
Chloroethane	ND		0.00571	1	05/16/2018 01:55	WG1111817	
Chloroform	ND		0.00286	1	05/16/2018 01:55	WG1111817	
Chloromethane	ND		0.0143	1	05/16/2018 01:55	WG1111817	
2-Chlorotoluene	ND		0.00286	1	05/16/2018 01:55	WG1111817	
4-Chlorotoluene	ND		0.00571	1	05/16/2018 01:55	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0286	1	05/16/2018 01:55	WG1111817	
1,2-Dibromoethane	ND		0.00286	1	05/16/2018 01:55	WG1111817	
Dibromomethane	ND		0.00571	1	05/16/2018 01:55	WG1111817	
1,2-Dichlorobenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817	
1,3-Dichlorobenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817	
1,4-Dichlorobenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817	
Dichlorodifluoromethane	ND		0.00286	1	05/16/2018 01:55	WG1111817	
1,1-Dichloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817	
1,2-Dichloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817	
1,1-Dichloroethene	ND		0.00286	1	05/16/2018 01:55	WG1111817	
cis-1,2-Dichloroethene	0.0316		0.00286	1	05/16/2018 01:55	WG1111817	
trans-1,2-Dichloroethene	ND		0.00571	1	05/16/2018 01:55	WG1111817	
1,2-Dichloropropane	ND		0.00571	1	05/16/2018 01:55	WG1111817	
1,1-Dichloropropene	ND		0.00286	1	05/16/2018 01:55	WG1111817	
1,3-Dichloropropane	ND	J4	0.00571	1	05/16/2018 01:55	WG1111817	
cis-1,3-Dichloropropene	ND		0.00286	1	05/16/2018 01:55	WG1111817	
trans-1,3-Dichloropropene	ND		0.00571	1	05/16/2018 01:55	WG1111817	
2,2-Dichloropropane	ND		0.00286	1	05/16/2018 01:55	WG1111817	
Di-isopropyl ether	ND		0.00114	1	05/16/2018 01:55	WG1111817	
Ethylbenzene	ND		0.00286	1	05/16/2018 01:55	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0286	1	05/16/2018 01:55	WG1111817	
Isopropylbenzene	ND		0.00286	1	05/16/2018 01:55	WG1111817	
p-Isopropyltoluene	ND		0.00571	1	05/16/2018 01:55	WG1111817	
2-Butanone (MEK)	ND		0.0286	1	05/16/2018 01:55	WG1111817	
Methylene Chloride	ND		0.0286	1	05/16/2018 01:55	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0286	1	05/16/2018 01:55	WG1111817	
Methyl tert-butyl ether	ND	UJ	JO J4	0.00114	1	05/16/2018 01:55	WG1111817
Naphthalene	ND		0.0143	1	05/16/2018 01:55	WG1111817	
n-Propylbenzene	ND	UJ	J4	0.00571	1	05/16/2018 01:55	WG1111817
Styrene	ND		0.0143	1	05/16/2018 01:55	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
Tetrachloroethene	0.0356		0.00286	1	05/16/2018 01:55	WG1111817
Toluene	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,2,3-Trichlorobenzene	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,2,4-Trichlorobenzene	ND		0.0143	1	05/16/2018 01:55	WG1111817
1,1,1-Trichloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,1,2-Trichloroethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
Trichloroethene	0.00328		0.00114	1	05/16/2018 01:55	WG1111817
Trichlorofluoromethane	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,2,3-Trichloropropane	ND		0.0143	1	05/16/2018 01:55	WG1111817
1,2,4-Trimethylbenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
1,2,3-Trimethylbenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
Vinyl chloride	ND		0.00286	1	05/16/2018 01:55	WG1111817
1,3,5-Trimethylbenzene	ND		0.00571	1	05/16/2018 01:55	WG1111817
Xylenes, Total	ND		0.00742	1	05/16/2018 01:55	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 01:55	WG1111817
(S) Dibromofluoromethane	94.7		74.0-131		05/16/2018 01:55	WG1111817
(S) 4-Bromofluorobenzene	101		64.0-132		05/16/2018 01:55	WG1111817

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0279	1	05/16/2018 02:15	WG1111817	
Acrylonitrile	ND		0.0140	1	05/16/2018 02:15	WG1111817	
Benzene	ND		0.00112	1	05/16/2018 02:15	WG1111817	
Bromobenzene	ND		0.0140	1	05/16/2018 02:15	WG1111817	
Bromodichloromethane	ND		0.00279	1	05/16/2018 02:15	WG1111817	
Bromoform	ND		0.0279	1	05/16/2018 02:15	WG1111817	
Bromomethane	ND		0.0140	1	05/16/2018 02:15	WG1111817	
n-Butylbenzene	ND		0.0140	1	05/16/2018 02:15	WG1111817	
sec-Butylbenzene	ND		0.0140	1	05/16/2018 02:15	WG1111817	
tert-Butylbenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817	
Carbon tetrachloride	ND		0.00558	1	05/16/2018 02:15	WG1111817	
Chlorobenzene	ND		0.00279	1	05/16/2018 02:15	WG1111817	
Chlorodibromomethane	ND		0.00279	1	05/16/2018 02:15	WG1111817	
Chloroethane	ND		0.00558	1	05/16/2018 02:15	WG1111817	
Chloroform	ND		0.00279	1	05/16/2018 02:15	WG1111817	
Chloromethane	ND		0.0140	1	05/16/2018 02:15	WG1111817	
2-Chlorotoluene	ND		0.00279	1	05/16/2018 02:15	WG1111817	
4-Chlorotoluene	ND		0.00558	1	05/16/2018 02:15	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0279	1	05/16/2018 02:15	WG1111817	
1,2-Dibromoethane	ND		0.00279	1	05/16/2018 02:15	WG1111817	
Dibromomethane	ND		0.00558	1	05/16/2018 02:15	WG1111817	
1,2-Dichlorobenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817	
1,3-Dichlorobenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817	
1,4-Dichlorobenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817	
Dichlorodifluoromethane	ND		0.00279	1	05/16/2018 02:15	WG1111817	
1,1-Dichloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817	
1,2-Dichloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817	
1,1-Dichloroethene	ND		0.00279	1	05/16/2018 02:15	WG1111817	
cis-1,2-Dichloroethene	ND		0.00279	1	05/16/2018 02:15	WG1111817	
trans-1,2-Dichloroethene	ND		0.00558	1	05/16/2018 02:15	WG1111817	
1,2-Dichloropropane	ND		0.00558	1	05/16/2018 02:15	WG1111817	
1,1-Dichloropropene	ND		0.00279	1	05/16/2018 02:15	WG1111817	
1,3-Dichloropropane	ND	<u>J4</u>	0.00558	1	05/16/2018 02:15	WG1111817	
cis-1,3-Dichloropropene	ND		0.00279	1	05/16/2018 02:15	WG1111817	
trans-1,3-Dichloropropene	ND		0.00558	1	05/16/2018 02:15	WG1111817	
2,2-Dichloropropane	ND		0.00279	1	05/16/2018 02:15	WG1111817	
Di-isopropyl ether	ND		0.00112	1	05/16/2018 02:15	WG1111817	
Ethylbenzene	ND		0.00279	1	05/16/2018 02:15	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0279	1	05/16/2018 02:15	WG1111817	
Isopropylbenzene	ND		0.00279	1	05/16/2018 02:15	WG1111817	
p-Isopropyltoluene	ND		0.00558	1	05/16/2018 02:15	WG1111817	
2-Butanone (MEK)	ND		0.0279	1	05/16/2018 02:15	WG1111817	
Methylene Chloride	ND		0.0279	1	05/16/2018 02:15	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0279	1	05/16/2018 02:15	WG1111817	
Methyl tert-butyl ether	ND	<u>UJ</u>	<u>JO J4</u>	0.00112	1	05/16/2018 02:15	WG1111817
Naphthalene	ND		0.0140	1	05/16/2018 02:15	WG1111817	
n-Propylbenzene	ND	<u>UJ</u>	<u>J4</u>	0.00558	1	05/16/2018 02:15	WG1111817
Styrene	ND		0.0140	1	05/16/2018 02:15	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817	

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

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
Tetrachloroethene	ND		0.00279	1	05/16/2018 02:15	WG1111817
Toluene	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,2,3-Trichlorobenzene	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,2,4-Trichlorobenzene	ND		0.0140	1	05/16/2018 02:15	WG1111817
1,1,1-Trichloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,1,2-Trichloroethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
Trichloroethene	ND		0.00112	1	05/16/2018 02:15	WG1111817
Trichlorofluoromethane	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,2,3-Trichloropropane	ND		0.0140	1	05/16/2018 02:15	WG1111817
1,2,4-Trimethylbenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
1,2,3-Trimethylbenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
Vinyl chloride	ND		0.00279	1	05/16/2018 02:15	WG1111817
1,3,5-Trimethylbenzene	ND		0.00558	1	05/16/2018 02:15	WG1111817
Xylenes, Total	ND		0.00726	1	05/16/2018 02:15	WG1111817
(S) Toluene-d8	107		80.0-120		05/16/2018 02:15	WG1111817
(S) Dibromofluoromethane	105		74.0-131		05/16/2018 02:15	WG1111817
(S) 4-Bromofluorobenzene	94.2		64.0-132		05/16/2018 02:15	WG1111817

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.8		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0308	1.02	05/16/2018 02:35	WG1111817	
Acrylonitrile	ND		0.0154	1.02	05/16/2018 02:35	WG1111817	
Benzene	ND		0.00123	1.02	05/16/2018 02:35	WG1111817	
Bromobenzene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817	
Bromodichloromethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
Bromoform	ND		0.0308	1.02	05/16/2018 02:35	WG1111817	
Bromomethane	ND		0.0154	1.02	05/16/2018 02:35	WG1111817	
n-Butylbenzene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817	
sec-Butylbenzene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817	
tert-Butylbenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
Carbon tetrachloride	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
Chlorobenzene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
Chlorodibromomethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
Chloroethane	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
Chloroform	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
Chloromethane	ND		0.0154	1.02	05/16/2018 02:35	WG1111817	
2-Chlorotoluene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
4-Chlorotoluene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0308	1.02	05/16/2018 02:35	WG1111817	
1,2-Dibromoethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
Dibromomethane	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
1,2-Dichlorobenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
1,3-Dichlorobenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
1,4-Dichlorobenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
Dichlorodifluoromethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
1,1-Dichloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
1,2-Dichloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
1,1-Dichloroethene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
cis-1,2-Dichloroethene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
trans-1,2-Dichloroethene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
1,2-Dichloropropane	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
1,1-Dichloropropene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
1,3-Dichloropropane	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
cis-1,3-Dichloropropene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
trans-1,3-Dichloropropene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
2,2-Dichloropropane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
Di-isopropyl ether	ND		0.00123	1.02	05/16/2018 02:35	WG1111817	
Ethylbenzene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0308	1.02	05/16/2018 02:35	WG1111817	
Isopropylbenzene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
p-Isopropyltoluene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817	
2-Butanone (MEK)	ND		0.0308	1.02	05/16/2018 02:35	WG1111817	
Methylene Chloride	ND		0.0308	1.02	05/16/2018 02:35	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0308	1.02	05/16/2018 02:35	WG1111817	
Methyl tert-butyl ether	ND	UJ	JO J4	0.00123	1.02	05/16/2018 02:35	WG1111817
Naphthalene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817	
n-Propylbenzene	ND	UJ	J4	0.00616	1.02	05/16/2018 02:35	WG1111817
Styrene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817	

JC 6/14/18

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Tetrachloroethene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Toluene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,2,3-Trichlorobenzene	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,2,4-Trichlorobenzene	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
1,1,1-Trichloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,1,2-Trichloroethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
Trichloroethene	ND		0.00123	1.02	05/16/2018 02:35	WG1111817
Trichlorofluoromethane	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,2,3-Trichloropropane	ND		0.0154	1.02	05/16/2018 02:35	WG1111817
1,2,4-Trimethylbenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
1,2,3-Trimethylbenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
Vinyl chloride	ND		0.00308	1.02	05/16/2018 02:35	WG1111817
1,3,5-Trimethylbenzene	ND		0.00616	1.02	05/16/2018 02:35	WG1111817
Xylenes, Total	ND		0.00801	1.02	05/16/2018 02:35	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 02:35	WG1111817
(S) Dibromofluoromethane	95.7		74.0-131		05/16/2018 02:35	WG1111817
(S) 4-Bromofluorobenzene	96.9		64.0-132		05/16/2018 02:35	WG1111817

- 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	Batch
	%			date / time	
Total Solids	87.9		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0285	1	05/16/2018 02:55	WG1111817	
Acrylonitrile	ND		0.0142	1	05/16/2018 02:55	WG1111817	
Benzene	ND		0.00114	1	05/16/2018 02:55	WG1111817	
Bromobenzene	ND		0.0142	1	05/16/2018 02:55	WG1111817	
Bromodichloromethane	ND		0.00285	1	05/16/2018 02:55	WG1111817	
Bromoform	ND		0.0285	1	05/16/2018 02:55	WG1111817	
Bromomethane	ND		0.0142	1	05/16/2018 02:55	WG1111817	
n-Butylbenzene	ND		0.0142	1	05/16/2018 02:55	WG1111817	
sec-Butylbenzene	ND		0.0142	1	05/16/2018 02:55	WG1111817	
tert-Butylbenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817	
Carbon tetrachloride	ND		0.00569	1	05/16/2018 02:55	WG1111817	
Chlorobenzene	ND		0.00285	1	05/16/2018 02:55	WG1111817	
Chlorodibromomethane	ND		0.00285	1	05/16/2018 02:55	WG1111817	
Chloroethane	ND		0.00569	1	05/16/2018 02:55	WG1111817	
Chloroform	ND		0.00285	1	05/16/2018 02:55	WG1111817	
Chloromethane	ND		0.0142	1	05/16/2018 02:55	WG1111817	
2-Chlorotoluene	ND		0.00285	1	05/16/2018 02:55	WG1111817	
4-Chlorotoluene	ND		0.00569	1	05/16/2018 02:55	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0285	1	05/16/2018 02:55	WG1111817	
1,2-Dibromoethane	ND		0.00285	1	05/16/2018 02:55	WG1111817	
Dibromomethane	ND		0.00569	1	05/16/2018 02:55	WG1111817	
1,2-Dichlorobenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817	
1,3-Dichlorobenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817	
1,4-Dichlorobenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817	
Dichlorodifluoromethane	ND		0.00285	1	05/16/2018 02:55	WG1111817	
1,1-Dichloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817	
1,2-Dichloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817	
1,1-Dichloroethene	ND		0.00285	1	05/16/2018 02:55	WG1111817	
cis-1,2-Dichloroethene	ND		0.00285	1	05/16/2018 02:55	WG1111817	
trans-1,2-Dichloroethene	ND		0.00569	1	05/16/2018 02:55	WG1111817	
1,2-Dichloropropane	ND		0.00569	1	05/16/2018 02:55	WG1111817	
1,1-Dichloropropene	ND		0.00285	1	05/16/2018 02:55	WG1111817	
1,3-Dichloropropane	ND	<u>J4</u>	0.00569	1	05/16/2018 02:55	WG1111817	
cis-1,3-Dichloropropene	ND		0.00285	1	05/16/2018 02:55	WG1111817	
trans-1,3-Dichloropropene	ND		0.00569	1	05/16/2018 02:55	WG1111817	
2,2-Dichloropropane	ND		0.00285	1	05/16/2018 02:55	WG1111817	
Di-isopropyl ether	ND		0.00114	1	05/16/2018 02:55	WG1111817	
Ethylbenzene	ND		0.00285	1	05/16/2018 02:55	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0285	1	05/16/2018 02:55	WG1111817	
Isopropylbenzene	ND		0.00285	1	05/16/2018 02:55	WG1111817	
p-Isopropyltoluene	ND		0.00569	1	05/16/2018 02:55	WG1111817	
2-Butanone (MEK)	ND		0.0285	1	05/16/2018 02:55	WG1111817	
Methylene Chloride	ND		0.0285	1	05/16/2018 02:55	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0285	1	05/16/2018 02:55	WG1111817	
Methyl tert-butyl ether	ND	<u>UJ</u>	<u>JO J4</u>	0.00114	1	05/16/2018 02:55	WG1111817
Naphthalene	ND		0.0142	1	05/16/2018 02:55	WG1111817	
n-Propylbenzene	ND	<u>UJ</u>	<u>J4</u>	0.00569	1	05/16/2018 02:55	WG1111817
Styrene	ND		0.0142	1	05/16/2018 02:55	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
Tetrachloroethene	ND		0.00285	1	05/16/2018 02:55	WG1111817
Toluene	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,2,3-Trichlorobenzene	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,2,4-Trichlorobenzene	ND		0.0142	1	05/16/2018 02:55	WG1111817
1,1,1-Trichloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,1,2-Trichloroethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
Trichloroethene	ND		0.00114	1	05/16/2018 02:55	WG1111817
Trichlorofluoromethane	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,2,3-Trichloropropane	ND		0.0142	1	05/16/2018 02:55	WG1111817
1,2,4-Trimethylbenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
1,2,3-Trimethylbenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
Vinyl chloride	ND		0.00285	1	05/16/2018 02:55	WG1111817
1,3,5-Trimethylbenzene	ND		0.00569	1	05/16/2018 02:55	WG1111817
Xylenes, Total	ND		0.00740	1	05/16/2018 02:55	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 02:55	WG1111817
(S) Dibromofluoromethane	94.9		74.0-131		05/16/2018 02:55	WG1111817
(S) 4-Bromofluorobenzene	99.8		64.0-132		05/16/2018 02:55	WG1111817

- 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	Batch
	%			date / time	
Total Solids	88.6		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0310	1.1	05/16/2018 03:14	WG1111817	
Acrylonitrile	ND		0.0155	1.1	05/16/2018 03:14	WG1111817	
Benzene	ND		0.00124	1.1	05/16/2018 03:14	WG1111817	
Bromobenzene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817	
Bromodichloromethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
Bromoform	ND		0.0310	1.1	05/16/2018 03:14	WG1111817	
Bromomethane	ND		0.0155	1.1	05/16/2018 03:14	WG1111817	
n-Butylbenzene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817	
sec-Butylbenzene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817	
tert-Butylbenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
Carbon tetrachloride	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
Chlorobenzene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
Chlorodibromomethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
Chloroethane	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
Chloroform	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
Chloromethane	ND		0.0155	1.1	05/16/2018 03:14	WG1111817	
2-Chlorotoluene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
4-Chlorotoluene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0310	1.1	05/16/2018 03:14	WG1111817	
1,2-Dibromoethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
Dibromomethane	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
1,2-Dichlorobenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
1,3-Dichlorobenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
1,4-Dichlorobenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
Dichlorodifluoromethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
1,1-Dichloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
1,2-Dichloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
1,1-Dichloroethene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
cis-1,2-Dichloroethene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
trans-1,2-Dichloroethene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
1,2-Dichloropropane	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
1,1-Dichloropropene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
1,3-Dichloropropane	ND	<u>J4</u>	0.00621	1.1	05/16/2018 03:14	WG1111817	
cis-1,3-Dichloropropene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
trans-1,3-Dichloropropene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
2,2-Dichloropropane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
Di-isopropyl ether	ND		0.00124	1.1	05/16/2018 03:14	WG1111817	
Ethylbenzene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0310	1.1	05/16/2018 03:14	WG1111817	
Isopropylbenzene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
p-Isopropyltoluene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817	
2-Butanone (MEK)	ND		0.0310	1.1	05/16/2018 03:14	WG1111817	
Methylene Chloride	ND		0.0310	1.1	05/16/2018 03:14	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0310	1.1	05/16/2018 03:14	WG1111817	
Methyl tert-butyl ether	ND	<u>UJ</u>	<u>JO J4</u>	0.00124	1.1	05/16/2018 03:14	WG1111817
Naphthalene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817	
n-Propylbenzene	ND	<u>UJ</u>	<u>J4</u>	0.00621	1.1	05/16/2018 03:14	WG1111817
Styrene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817	

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

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Tetrachloroethene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Toluene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,2,3-Trichlorobenzene	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,2,4-Trichlorobenzene	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
1,1,1-Trichloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,1,2-Trichloroethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
Trichloroethene	ND		0.00124	1.1	05/16/2018 03:14	WG1111817
Trichlorofluoromethane	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,2,3-Trichloropropane	ND		0.0155	1.1	05/16/2018 03:14	WG1111817
1,2,4-Trimethylbenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
1,2,3-Trimethylbenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
Vinyl chloride	ND		0.00310	1.1	05/16/2018 03:14	WG1111817
1,3,5-Trimethylbenzene	ND		0.00621	1.1	05/16/2018 03:14	WG1111817
Xylenes, Total	ND		0.00807	1.1	05/16/2018 03:14	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 03:14	WG1111817
(S) Dibromofluoromethane	85.0		74.0-131		05/16/2018 03:14	WG1111817
(S) 4-Bromofluorobenzene	95.9		64.0-132		05/16/2018 03:14	WG1111817

- 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	Batch
	%			date / time	
Total Solids	85.9		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0291	1	05/16/2018 03:34	WG1111817
Acrylonitrile	ND		0.0146	1	05/16/2018 03:34	WG1111817
Benzene	ND		0.00116	1	05/16/2018 03:34	WG1111817
Bromobenzene	ND		0.0146	1	05/16/2018 03:34	WG1111817
Bromodichloromethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Bromoform	ND		0.0291	1	05/16/2018 03:34	WG1111817
Bromomethane	ND		0.0146	1	05/16/2018 03:34	WG1111817
n-Butylbenzene	ND		0.0146	1	05/16/2018 03:34	WG1111817
sec-Butylbenzene	ND		0.0146	1	05/16/2018 03:34	WG1111817
tert-Butylbenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
Carbon tetrachloride	ND		0.00582	1	05/16/2018 03:34	WG1111817
Chlorobenzene	ND		0.00291	1	05/16/2018 03:34	WG1111817
Chlorodibromomethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Chloroethane	ND		0.00582	1	05/16/2018 03:34	WG1111817
Chloroform	ND		0.00291	1	05/16/2018 03:34	WG1111817
Chloromethane	ND		0.0146	1	05/16/2018 03:34	WG1111817
2-Chlorotoluene	ND		0.00291	1	05/16/2018 03:34	WG1111817
4-Chlorotoluene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0291	1	05/16/2018 03:34	WG1111817
1,2-Dibromoethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Dibromomethane	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2-Dichlorobenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,3-Dichlorobenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,4-Dichlorobenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
Dichlorodifluoromethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,1-Dichloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,2-Dichloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,1-Dichloroethene	ND		0.00291	1	05/16/2018 03:34	WG1111817
cis-1,2-Dichloroethene	ND		0.00291	1	05/16/2018 03:34	WG1111817
trans-1,2-Dichloroethene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2-Dichloropropane	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,1-Dichloropropene	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00582	1	05/16/2018 03:34	WG1111817
cis-1,3-Dichloropropene	ND		0.00291	1	05/16/2018 03:34	WG1111817
trans-1,3-Dichloropropene	ND		0.00582	1	05/16/2018 03:34	WG1111817
2,2-Dichloropropane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Di-isopropyl ether	ND		0.00116	1	05/16/2018 03:34	WG1111817
Ethylbenzene	ND		0.00291	1	05/16/2018 03:34	WG1111817
Hexachloro-1,3-butadiene	ND		0.0291	1	05/16/2018 03:34	WG1111817
Isopropylbenzene	ND		0.00291	1	05/16/2018 03:34	WG1111817
p-Isopropyltoluene	ND		0.00582	1	05/16/2018 03:34	WG1111817
2-Butanone (MEK)	ND		0.0291	1	05/16/2018 03:34	WG1111817
Methylene Chloride	ND		0.0291	1	05/16/2018 03:34	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0291	1	05/16/2018 03:34	WG1111817
Methyl tert-butyl ether	ND	<u>UJ</u> <u>JO J4</u>	0.00116	1	05/16/2018 03:34	WG1111817
Naphthalene	ND		0.0146	1	05/16/2018 03:34	WG1111817
n-Propylbenzene	ND	<u>UJ</u> <u>J4</u>	0.00582	1	05/16/2018 03:34	WG1111817
Styrene	ND		0.0146	1	05/16/2018 03:34	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Tetrachloroethene	ND		0.00291	1	05/16/2018 03:34	WG1111817
Toluene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2,3-Trichlorobenzene	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,2,4-Trichlorobenzene	ND		0.0146	1	05/16/2018 03:34	WG1111817
1,1,1-Trichloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,1,2-Trichloroethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
Trichloroethene	ND		0.00116	1	05/16/2018 03:34	WG1111817
Trichlorofluoromethane	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,2,3-Trichloropropane	ND		0.0146	1	05/16/2018 03:34	WG1111817
1,2,4-Trimethylbenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
1,2,3-Trimethylbenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
Vinyl chloride	ND		0.00291	1	05/16/2018 03:34	WG1111817
1,3,5-Trimethylbenzene	ND		0.00582	1	05/16/2018 03:34	WG1111817
Xylenes, Total	ND		0.00757	1	05/16/2018 03:34	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 03:34	WG1111817
(S) Dibromofluoromethane	95.4		74.0-131		05/16/2018 03:34	WG1111817
(S) 4-Bromofluorobenzene	96.2		64.0-132		05/16/2018 03:34	WG1111817

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.0		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0305	1	05/16/2018 03:54	WG1111817
Acrylonitrile	ND		0.0152	1	05/16/2018 03:54	WG1111817
Benzene	ND		0.00122	1	05/16/2018 03:54	WG1111817
Bromobenzene	ND		0.0152	1	05/16/2018 03:54	WG1111817
Bromodichloromethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Bromoform	ND		0.0305	1	05/16/2018 03:54	WG1111817
Bromomethane	ND		0.0152	1	05/16/2018 03:54	WG1111817
n-Butylbenzene	ND		0.0152	1	05/16/2018 03:54	WG1111817
sec-Butylbenzene	ND		0.0152	1	05/16/2018 03:54	WG1111817
tert-Butylbenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
Carbon tetrachloride	ND		0.00610	1	05/16/2018 03:54	WG1111817
Chlorobenzene	ND		0.00305	1	05/16/2018 03:54	WG1111817
Chlorodibromomethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Chloroethane	ND		0.00610	1	05/16/2018 03:54	WG1111817
Chloroform	ND		0.00305	1	05/16/2018 03:54	WG1111817
Chloromethane	ND		0.0152	1	05/16/2018 03:54	WG1111817
2-Chlorotoluene	ND		0.00305	1	05/16/2018 03:54	WG1111817
4-Chlorotoluene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2-Dibromo-3-Chloropropane	ND		0.0305	1	05/16/2018 03:54	WG1111817
1,2-Dibromoethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Dibromomethane	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2-Dichlorobenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,3-Dichlorobenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,4-Dichlorobenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
Dichlorodifluoromethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,1-Dichloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,2-Dichloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,1-Dichloroethene	ND		0.00305	1	05/16/2018 03:54	WG1111817
cis-1,2-Dichloroethene	ND		0.00305	1	05/16/2018 03:54	WG1111817
trans-1,2-Dichloroethene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2-Dichloropropane	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,1-Dichloropropene	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,3-Dichloropropane	ND	<u>J4</u>	0.00610	1	05/16/2018 03:54	WG1111817
cis-1,3-Dichloropropene	ND		0.00305	1	05/16/2018 03:54	WG1111817
trans-1,3-Dichloropropene	ND		0.00610	1	05/16/2018 03:54	WG1111817
2,2-Dichloropropane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Di-isopropyl ether	ND		0.00122	1	05/16/2018 03:54	WG1111817
Ethylbenzene	ND		0.00305	1	05/16/2018 03:54	WG1111817
Hexachloro-1,3-butadiene	ND		0.0305	1	05/16/2018 03:54	WG1111817
Isopropylbenzene	ND		0.00305	1	05/16/2018 03:54	WG1111817
p-Isopropyltoluene	ND		0.00610	1	05/16/2018 03:54	WG1111817
2-Butanone (MEK)	ND		0.0305	1	05/16/2018 03:54	WG1111817
Methylene Chloride	ND		0.0305	1	05/16/2018 03:54	WG1111817
4-Methyl-2-pentanone (MIBK)	ND		0.0305	1	05/16/2018 03:54	WG1111817
Methyl tert-butyl ether	ND	UJ <u>JO J4</u>	0.00122	1	05/16/2018 03:54	WG1111817
Naphthalene	ND		0.0152	1	05/16/2018 03:54	WG1111817
n-Propylbenzene	ND	UJ <u>J4</u>	0.00610	1	05/16/2018 03:54	WG1111817
Styrene	ND		0.0152	1	05/16/2018 03:54	WG1111817
1,1,1,2-Tetrachloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,1,2,2-Tetrachloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817

JC 6/14/18

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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Tetrachloroethene	ND		0.00305	1	05/16/2018 03:54	WG1111817
Toluene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2,3-Trichlorobenzene	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,2,4-Trichlorobenzene	ND		0.0152	1	05/16/2018 03:54	WG1111817
1,1,1-Trichloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,1,2-Trichloroethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
Trichloroethene	ND		0.00122	1	05/16/2018 03:54	WG1111817
Trichlorofluoromethane	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,2,3-Trichloropropane	ND		0.0152	1	05/16/2018 03:54	WG1111817
1,2,4-Trimethylbenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
1,2,3-Trimethylbenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
Vinyl chloride	ND		0.00305	1	05/16/2018 03:54	WG1111817
1,3,5-Trimethylbenzene	ND		0.00610	1	05/16/2018 03:54	WG1111817
Xylenes, Total	ND		0.00793	1	05/16/2018 03:54	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 03:54	WG1111817
(S) Dibromofluoromethane	96.8		74.0-131		05/16/2018 03:54	WG1111817
(S) 4-Bromofluorobenzene	97.3		64.0-132		05/16/2018 03:54	WG1111817

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.0		1	05/17/2018 15:45	WG1112649

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0305	1	05/16/2018 04:13	WG1111817	
Acrylonitrile	ND		0.0153	1	05/16/2018 04:13	WG1111817	
Benzene	ND		0.00122	1	05/16/2018 04:13	WG1111817	
Bromobenzene	ND		0.0153	1	05/16/2018 04:13	WG1111817	
Bromodichloromethane	ND		0.00305	1	05/16/2018 04:13	WG1111817	
Bromoform	ND		0.0305	1	05/16/2018 04:13	WG1111817	
Bromomethane	ND		0.0153	1	05/16/2018 04:13	WG1111817	
n-Butylbenzene	ND		0.0153	1	05/16/2018 04:13	WG1111817	
sec-Butylbenzene	ND		0.0153	1	05/16/2018 04:13	WG1111817	
tert-Butylbenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817	
Carbon tetrachloride	ND		0.00610	1	05/16/2018 04:13	WG1111817	
Chlorobenzene	ND		0.00305	1	05/16/2018 04:13	WG1111817	
Chlorodibromomethane	ND		0.00305	1	05/16/2018 04:13	WG1111817	
Chloroethane	ND		0.00610	1	05/16/2018 04:13	WG1111817	
Chloroform	ND		0.00305	1	05/16/2018 04:13	WG1111817	
Chloromethane	ND		0.0153	1	05/16/2018 04:13	WG1111817	
2-Chlorotoluene	ND		0.00305	1	05/16/2018 04:13	WG1111817	
4-Chlorotoluene	ND		0.00610	1	05/16/2018 04:13	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0305	1	05/16/2018 04:13	WG1111817	
1,2-Dibromoethane	ND		0.00305	1	05/16/2018 04:13	WG1111817	
Dibromomethane	ND		0.00610	1	05/16/2018 04:13	WG1111817	
1,2-Dichlorobenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817	
1,3-Dichlorobenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817	
1,4-Dichlorobenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817	
Dichlorodifluoromethane	ND		0.00305	1	05/16/2018 04:13	WG1111817	
1,1-Dichloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817	
1,2-Dichloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817	
1,1-Dichloroethene	ND		0.00305	1	05/16/2018 04:13	WG1111817	
cis-1,2-Dichloroethene	ND		0.00305	1	05/16/2018 04:13	WG1111817	
trans-1,2-Dichloroethene	ND		0.00610	1	05/16/2018 04:13	WG1111817	
1,2-Dichloropropane	ND		0.00610	1	05/16/2018 04:13	WG1111817	
1,1-Dichloropropene	ND		0.00305	1	05/16/2018 04:13	WG1111817	
1,3-Dichloropropane	ND	<u>J4</u>	0.00610	1	05/16/2018 04:13	WG1111817	
cis-1,3-Dichloropropene	ND		0.00305	1	05/16/2018 04:13	WG1111817	
trans-1,3-Dichloropropene	ND		0.00610	1	05/16/2018 04:13	WG1111817	
2,2-Dichloropropane	ND		0.00305	1	05/16/2018 04:13	WG1111817	
Di-isopropyl ether	ND		0.00122	1	05/16/2018 04:13	WG1111817	
Ethylbenzene	ND		0.00305	1	05/16/2018 04:13	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0305	1	05/16/2018 04:13	WG1111817	
Isopropylbenzene	ND		0.00305	1	05/16/2018 04:13	WG1111817	
p-Isopropyltoluene	ND		0.00610	1	05/16/2018 04:13	WG1111817	
2-Butanone (MEK)	ND		0.0305	1	05/16/2018 04:13	WG1111817	
Methylene Chloride	ND		0.0305	1	05/16/2018 04:13	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0305	1	05/16/2018 04:13	WG1111817	
Methyl tert-butyl ether	ND	<u>UJ</u>	<u>JO J4</u>	0.00122	1	05/16/2018 04:13	WG1111817
Naphthalene	ND		0.0153	1	05/16/2018 04:13	WG1111817	
n-Propylbenzene	ND	<u>UJ</u>	<u>J4</u>	0.00610	1	05/16/2018 04:13	WG1111817
Styrene	ND		0.0153	1	05/16/2018 04:13	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817	

JC 6/14/18

- 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	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
Tetrachloroethene	ND		0.00305	1	05/16/2018 04:13	WG1111817
Toluene	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,2,3-Trichlorobenzene	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,2,4-Trichlorobenzene	ND		0.0153	1	05/16/2018 04:13	WG1111817
1,1,1-Trichloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,1,2-Trichloroethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
Trichloroethene	ND		0.00122	1	05/16/2018 04:13	WG1111817
Trichlorofluoromethane	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,2,3-Trichloropropane	ND		0.0153	1	05/16/2018 04:13	WG1111817
1,2,4-Trimethylbenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
1,2,3-Trimethylbenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
Vinyl chloride	ND		0.00305	1	05/16/2018 04:13	WG1111817
1,3,5-Trimethylbenzene	ND		0.00610	1	05/16/2018 04:13	WG1111817
Xylenes, Total	ND		0.00793	1	05/16/2018 04:13	WG1111817
(S) Toluene-d8	112		80.0-120		05/16/2018 04:13	WG1111817
(S) Dibromofluoromethane	97.7		74.0-131		05/16/2018 04:13	WG1111817
(S) 4-Bromofluorobenzene	97.6		64.0-132		05/16/2018 04:13	WG1111817

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

JC 6/14/18



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.9		1	05/17/2018 15:33	WG1112650

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg		date / time		
Acetone	ND		0.0275	1	05/16/2018 04:33	WG1111817	
Acrylonitrile	ND		0.0137	1	05/16/2018 04:33	WG1111817	
Benzene	ND		0.00110	1	05/16/2018 04:33	WG1111817	
Bromobenzene	ND		0.0137	1	05/16/2018 04:33	WG1111817	
Bromodichloromethane	ND		0.00275	1	05/16/2018 04:33	WG1111817	
Bromoform	ND		0.0275	1	05/16/2018 04:33	WG1111817	
Bromomethane	ND		0.0137	1	05/16/2018 04:33	WG1111817	
n-Butylbenzene	ND		0.0137	1	05/16/2018 04:33	WG1111817	
sec-Butylbenzene	ND		0.0137	1	05/16/2018 04:33	WG1111817	
tert-Butylbenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817	
Carbon tetrachloride	ND		0.00550	1	05/16/2018 04:33	WG1111817	
Chlorobenzene	ND		0.00275	1	05/16/2018 04:33	WG1111817	
Chlorodibromomethane	ND		0.00275	1	05/16/2018 04:33	WG1111817	
Chloroethane	ND		0.00550	1	05/16/2018 04:33	WG1111817	
Chloroform	ND		0.00275	1	05/16/2018 04:33	WG1111817	
Chloromethane	ND		0.0137	1	05/16/2018 04:33	WG1111817	
2-Chlorotoluene	ND		0.00275	1	05/16/2018 04:33	WG1111817	
4-Chlorotoluene	ND		0.00550	1	05/16/2018 04:33	WG1111817	
1,2-Dibromo-3-Chloropropane	ND		0.0275	1	05/16/2018 04:33	WG1111817	
1,2-Dibromoethane	ND		0.00275	1	05/16/2018 04:33	WG1111817	
Dibromomethane	ND		0.00550	1	05/16/2018 04:33	WG1111817	
1,2-Dichlorobenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817	
1,3-Dichlorobenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817	
1,4-Dichlorobenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817	
Dichlorodifluoromethane	ND		0.00275	1	05/16/2018 04:33	WG1111817	
1,1-Dichloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817	
1,2-Dichloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817	
1,1-Dichloroethene	ND		0.00275	1	05/16/2018 04:33	WG1111817	
cis-1,2-Dichloroethene	ND		0.00275	1	05/16/2018 04:33	WG1111817	
trans-1,2-Dichloroethene	ND		0.00550	1	05/16/2018 04:33	WG1111817	
1,2-Dichloropropane	ND		0.00550	1	05/16/2018 04:33	WG1111817	
1,1-Dichloropropene	ND		0.00275	1	05/16/2018 04:33	WG1111817	
1,3-Dichloropropane	ND	<u>J4</u>	0.00550	1	05/16/2018 04:33	WG1111817	
cis-1,3-Dichloropropene	ND		0.00275	1	05/16/2018 04:33	WG1111817	
trans-1,3-Dichloropropene	ND		0.00550	1	05/16/2018 04:33	WG1111817	
2,2-Dichloropropane	ND		0.00275	1	05/16/2018 04:33	WG1111817	
Di-isopropyl ether	ND		0.00110	1	05/16/2018 04:33	WG1111817	
Ethylbenzene	ND		0.00275	1	05/16/2018 04:33	WG1111817	
Hexachloro-1,3-butadiene	ND		0.0275	1	05/16/2018 04:33	WG1111817	
Isopropylbenzene	ND		0.00275	1	05/16/2018 04:33	WG1111817	
p-Isopropyltoluene	ND		0.00550	1	05/16/2018 04:33	WG1111817	
2-Butanone (MEK)	ND		0.0275	1	05/16/2018 04:33	WG1111817	
Methylene Chloride	ND		0.0275	1	05/16/2018 04:33	WG1111817	
4-Methyl-2-pentanone (MIBK)	ND		0.0275	1	05/16/2018 04:33	WG1111817	
Methyl tert-butyl ether	ND	<u>UJ</u>	<u>JO J4</u>	0.00110	1	05/16/2018 04:33	WG1111817
Naphthalene	ND		0.0137	1	05/16/2018 04:33	WG1111817	
n-Propylbenzene	ND	<u>UJ</u>	<u>J4</u>	0.00550	1	05/16/2018 04:33	WG1111817
Styrene	ND		0.0137	1	05/16/2018 04:33	WG1111817	
1,1,1,2-Tetrachloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817	
1,1,2,2-Tetrachloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817	

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

JC 6/14/18



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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
Tetrachloroethene	0.0307		0.00275	1	05/16/2018 04:33	WG1111817
Toluene	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,2,3-Trichlorobenzene	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,2,4-Trichlorobenzene	ND		0.0137	1	05/16/2018 04:33	WG1111817
1,1,1-Trichloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,1,2-Trichloroethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
Trichloroethene	0.0114		0.00110	1	05/16/2018 04:33	WG1111817
Trichlorofluoromethane	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,2,3-Trichloropropane	ND		0.0137	1	05/16/2018 04:33	WG1111817
1,2,4-Trimethylbenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
1,2,3-Trimethylbenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
Vinyl chloride	ND		0.00275	1	05/16/2018 04:33	WG1111817
1,3,5-Trimethylbenzene	ND		0.00550	1	05/16/2018 04:33	WG1111817
Xylenes, Total	ND		0.00715	1	05/16/2018 04:33	WG1111817
(S) Toluene-d8	111		80.0-120		05/16/2018 04:33	WG1111817
(S) Dibromofluoromethane	97.4		74.0-131		05/16/2018 04:33	WG1111817
(S) 4-Bromofluorobenzene	94.9		64.0-132		05/16/2018 04:33	WG1111817

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

JC 6/14/18



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		25.0	1	05/16/2018 12:52	WG1111989
Acrylonitrile	ND		5.00	1	05/16/2018 12:52	WG1111989
Benzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromodichloromethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromochloromethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromoform	ND		0.500	1	05/16/2018 12:52	WG1111989
Bromomethane	ND		2.50	1	05/16/2018 12:52	WG1111989
n-Butylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
sec-Butylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
tert-Butylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Carbon disulfide	ND		0.500	1	05/16/2018 12:52	WG1111989
Carbon tetrachloride	ND		0.500	1	05/16/2018 12:52	WG1111989
Chlorobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Chlorodibromomethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Chloroethane	ND	UJ JO	2.50	1	05/16/2018 12:52	WG1111989
Chloroform	ND		0.500	1	05/16/2018 12:52	WG1111989
Chloromethane	ND		1.25	1	05/16/2018 12:52	WG1111989
2-Chlorotoluene	ND		0.500	1	05/16/2018 12:52	WG1111989
4-Chlorotoluene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2-Dibromo-3-Chloropropane	ND		2.50	1	05/16/2018 12:52	WG1111989
1,2-Dibromoethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Dibromomethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2-Dichlorobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,3-Dichlorobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,4-Dichlorobenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Dichlorodifluoromethane	ND		2.50	1	05/16/2018 12:52	WG1111989
1,1-Dichloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2-Dichloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1-Dichloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
cis-1,2-Dichloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
trans-1,2-Dichloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2-Dichloropropane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1-Dichloropropene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,3-Dichloropropane	ND		1.00	1	05/16/2018 12:52	WG1111989
cis-1,3-Dichloropropene	ND		0.500	1	05/16/2018 12:52	WG1111989
trans-1,3-Dichloropropene	ND		0.500	1	05/16/2018 12:52	WG1111989
trans-1,4-Dichloro-2-butene	ND		5.00	1	05/16/2018 12:52	WG1111989
2,2-Dichloropropane	ND		0.500	1	05/16/2018 12:52	WG1111989
Di-isopropyl ether	ND		0.500	1	05/16/2018 12:52	WG1111989
Ethylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Hexachloro-1,3-butadiene	ND	UJ JO	1.00	1	05/16/2018 12:52	WG1111989
2-Hexanone	ND		5.00	1	05/16/2018 12:52	WG1111989
n-Hexane	ND		5.00	1	05/16/2018 12:52	WG1111989
Iodomethane	ND		10.0	1	05/16/2018 12:52	WG1111989
Isopropylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
p-Isopropyltoluene	ND		0.500	1	05/16/2018 12:52	WG1111989
2-Butanone (MEK)	ND		5.00	1	05/16/2018 12:52	WG1111989
Methylene Chloride	ND		2.50	1	05/16/2018 12:52	WG1111989
4-Methyl-2-pentanone (MIBK)	ND		5.00	1	05/16/2018 12:52	WG1111989
Methyl tert-butyl ether	ND		0.500	1	05/16/2018 12:52	WG1111989
Naphthalene	ND		2.50	1	05/16/2018 12:52	WG1111989
n-Propylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Styrene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1,1,2-Tetrachloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1,2,2-Tetrachloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989

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

JC 6/14/18



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Tetrachloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
Toluene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2,3-Trichlorobenzene	ND	UJ JO	0.500	1	05/16/2018 12:52	WG1111989
1,2,4-Trichlorobenzene	ND	UJ JO	0.500	1	05/16/2018 12:52	WG1111989
1,1,1-Trichloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
1,1,2-Trichloroethane	ND		0.500	1	05/16/2018 12:52	WG1111989
Trichloroethene	ND		0.500	1	05/16/2018 12:52	WG1111989
Trichlorofluoromethane	ND		2.50	1	05/16/2018 12:52	WG1111989
1,2,3-Trichloropropane	ND		2.50	1	05/16/2018 12:52	WG1111989
1,2,4-Trimethylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,2,3-Trimethylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
1,3,5-Trimethylbenzene	ND		0.500	1	05/16/2018 12:52	WG1111989
Vinyl acetate	ND	J3	5.00	1	05/16/2018 12:52	WG1111989
Vinyl chloride	ND		0.500	1	05/16/2018 12:52	WG1111989
Xylenes, Total	ND		1.50	1	05/16/2018 12:52	WG1111989
(S) Toluene-d8	94.2		80.0-120		05/16/2018 12:52	WG1111989
(S) Dibromofluoromethane	112		76.0-123		05/16/2018 12:52	WG1111989
(S) 4-Bromofluorobenzene	116		80.0-120		05/16/2018 12:52	WG1111989

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

JC 6/14/18

May 21, 2018

PES Environmental, Inc.- WA

Sample Delivery Group: L994604
Samples Received: 05/17/2018
Project Number: 1413.001.05.601
Description: American Linen
Site: 1413.001.05.601
Report To: Brian O'Neal/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.



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
MW-161-140 L994604-01	5	⁴Cn
TRIP BLANK-051518 L994604-02	7	⁵Sr
Qc: Quality Control Summary	9	⁶Qc
Total Solids by Method 2540 G-2011	9	⁷Gl
Volatile Organic Compounds (GC/MS) by Method 8260C	10	⁸Al
Gl: Glossary of Terms	19	⁹Sc
Al: Accreditations & Locations	20	
Sc: Sample Chain of Custody	21	

SAMPLE SUMMARY



MW-161-140 L994604-01 Solid

Collected by Karsten Springstead	Collected date/time 05/15/18 13:10	Received date/time 05/17/18 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1112874	1	05/18/18 11:28	05/18/18 11:38	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1114084	1	05/15/18 13:10	05/21/18 12:48	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1114208	1	05/15/18 13:10	05/21/18 16:10	JHH

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

TRIP BLANK-051518 L994604-02 GW

Collected by Karsten Springstead	Collected date/time 05/15/18 00:00	Received date/time 05/17/18 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1112686	1	05/17/18 16:56	05/17/18 16:56	BMB



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.

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	Batch
	%			date / time	
Total Solids	81.6		1	05/18/2018 11:38	WG1112874

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		0.0168	0.0306	1	05/21/2018 12:48	WG1114084
Acrylonitrile	U		0.00233	0.0153	1	05/21/2018 12:48	WG1114084
Benzene	0.000580	J	0.000490	0.00123	1	05/21/2018 12:48	WG1114084
Bromobenzene	U	J4	0.00129	0.0153	1	05/21/2018 12:48	WG1114084
Bromodichloromethane	U		0.000966	0.00306	1	05/21/2018 12:48	WG1114084
Bromochloromethane	U		0.00139	0.00613	1	05/21/2018 12:48	WG1114084
Bromoform	U		0.00733	0.0306	1	05/21/2018 12:48	WG1114084
Bromomethane	U		0.00454	0.0153	1	05/21/2018 16:10	WG1114208
n-Butylbenzene	U		0.00471	0.0153	1	05/21/2018 12:48	WG1114084
sec-Butylbenzene	U		0.00310	0.0153	1	05/21/2018 12:48	WG1114084
tert-Butylbenzene	U		0.00190	0.00613	1	05/21/2018 12:48	WG1114084
Carbon disulfide	U		0.00498	0.0153	1	05/21/2018 12:48	WG1114084
Carbon tetrachloride	U		0.00132	0.00613	1	05/21/2018 16:10	WG1114208
Chlorobenzene	U		0.000702	0.00306	1	05/21/2018 12:48	WG1114084
Chlorodibromomethane	U		0.000552	0.00306	1	05/21/2018 12:48	WG1114084
Chloroethane	U		0.00132	0.00613	1	05/21/2018 12:48	WG1114084
Chloroform	U	J4	0.000509	0.00306	1	05/21/2018 12:48	WG1114084
Chloromethane	U	JO	0.00170	0.0153	1	05/21/2018 12:48	WG1114084
2-Chlorotoluene	U		0.00113	0.00306	1	05/21/2018 12:48	WG1114084
4-Chlorotoluene	U		0.00139	0.00613	1	05/21/2018 12:48	WG1114084
1,2-Dibromo-3-Chloropropane	U		0.00625	0.0306	1	05/21/2018 12:48	WG1114084
1,2-Dibromoethane	U		0.000644	0.00306	1	05/21/2018 12:48	WG1114084
Dibromomethane	U		0.00123	0.00613	1	05/21/2018 12:48	WG1114084
1,2-Dichlorobenzene	U		0.00178	0.00613	1	05/21/2018 12:48	WG1114084
1,3-Dichlorobenzene	U		0.00208	0.00613	1	05/21/2018 12:48	WG1114084
1,4-Dichlorobenzene	U		0.00241	0.00613	1	05/21/2018 12:48	WG1114084
Dichlorodifluoromethane	U		0.00100	0.00306	1	05/21/2018 16:10	WG1114208
1,1-Dichloroethane	U		0.000705	0.00306	1	05/21/2018 12:48	WG1114084
1,2-Dichloroethane	U		0.000582	0.00306	1	05/21/2018 12:48	WG1114084
1,1-Dichloroethene	U		0.000613	0.00306	1	05/21/2018 12:48	WG1114084
cis-1,2-Dichloroethene	U		0.000846	0.00306	1	05/21/2018 12:48	WG1114084
trans-1,2-Dichloroethene	U		0.00175	0.00613	1	05/21/2018 12:48	WG1114084
1,2-Dichloropropane	U		0.00156	0.00613	1	05/21/2018 12:48	WG1114084
1,1-Dichloropropene	U		0.000858	0.00306	1	05/21/2018 12:48	WG1114084
1,3-Dichloropropane	U	J4	0.00215	0.00613	1	05/21/2018 12:48	WG1114084
cis-1,3-Dichloropropene	U		0.000831	0.00306	1	05/21/2018 12:48	WG1114084
trans-1,3-Dichloropropene	U		0.00188	0.00613	1	05/21/2018 12:48	WG1114084
trans-1,4-Dichloro-2-butene	U		0.00172	0.00613	1	05/21/2018 12:48	WG1114084
2,2-Dichloropropane	U		0.000972	0.00306	1	05/21/2018 12:48	WG1114084
Di-isopropyl ether	U		0.000429	0.00123	1	05/21/2018 12:48	WG1114084
Ethylbenzene	U		0.000650	0.00306	1	05/21/2018 12:48	WG1114084
Hexachloro-1,3-butadiene	U		0.0156	0.0306	1	05/21/2018 12:48	WG1114084
2-Hexanone	U		0.0123	0.0306	1	05/21/2018 12:48	WG1114084
n-Hexane	U		0.00130	0.00613	1	05/21/2018 12:48	WG1114084
Iodomethane	U		0.00742	0.0153	1	05/21/2018 12:48	WG1114084
Isopropylbenzene	U		0.00106	0.00306	1	05/21/2018 12:48	WG1114084
p-Isopropyltoluene	U		0.00286	0.00613	1	05/21/2018 12:48	WG1114084
2-Butanone (MEK)	U		0.0153	0.0306	1	05/21/2018 12:48	WG1114084
Methylene Chloride	U		0.00814	0.0306	1	05/21/2018 12:48	WG1114084
4-Methyl-2-pentanone (MIBK)	U		0.0123	0.0306	1	05/21/2018 12:48	WG1114084

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
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- 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		0.000362	0.00123	1	05/21/2018 12:48	WG1114084
Naphthalene	U		0.00382	0.0153	1	05/21/2018 12:48	WG1114084
n-Propylbenzene	U		0.00145	0.00613	1	05/21/2018 12:48	WG1114084
Styrene	U		0.00335	0.0153	1	05/21/2018 12:48	WG1114084
1,1,1,2-Tetrachloroethane	U		0.000613	0.00306	1	05/21/2018 12:48	WG1114084
1,1,2,2-Tetrachloroethane	U		0.000478	0.00306	1	05/21/2018 12:48	WG1114084
1,1,2-Trichlorotrifluoroethane	U		0.000827	0.00306	1	05/21/2018 16:10	WG1114208
Tetrachloroethene	U		0.000858	0.00306	1	05/21/2018 12:48	WG1114084
Toluene	0.00175	J	0.00153	0.00613	1	05/21/2018 12:48	WG1114084
1,2,3-Trichlorobenzene	U		0.000766	0.00306	1	05/21/2018 12:48	WG1114084
1,2,4-Trichlorobenzene	U		0.00591	0.0153	1	05/21/2018 12:48	WG1114084
1,1,1-Trichloroethane	U		0.000337	0.00306	1	05/21/2018 12:48	WG1114084
1,1,2-Trichloroethane	U		0.00108	0.00306	1	05/21/2018 12:48	WG1114084
Trichloroethene	U		0.000490	0.00123	1	05/21/2018 12:48	WG1114084
Trichlorofluoromethane	U		0.000613	0.00306	1	05/21/2018 12:48	WG1114084
1,2,3-Trichloropropane	U		0.00625	0.0153	1	05/21/2018 12:48	WG1114084
1,2,4-Trimethylbenzene	U		0.00142	0.00613	1	05/21/2018 12:48	WG1114084
1,2,3-Trimethylbenzene	U	J4	0.00141	0.00613	1	05/21/2018 12:48	WG1114084
1,3,5-Trimethylbenzene	U		0.00132	0.00613	1	05/21/2018 12:48	WG1114084
Vinyl acetate	U		0.00431	0.0153	1	05/21/2018 12:48	WG1114084
Vinyl chloride	U	JO	0.000837	0.00306	1	05/21/2018 12:48	WG1114084
Xylenes, Total	U		0.00586	0.00797	1	05/21/2018 12:48	WG1114084
(S) Toluene-d8	122	J1		80.0-120		05/21/2018 12:48	WG1114084
(S) Toluene-d8	101			80.0-120		05/21/2018 16:10	WG1114208
(S) Dibromofluoromethane	80.5			74.0-131		05/21/2018 12:48	WG1114084
(S) Dibromofluoromethane	89.2			74.0-131		05/21/2018 16:10	WG1114208
(S) 4-Bromofluorobenzene	95.6			64.0-132		05/21/2018 12:48	WG1114084
(S) 4-Bromofluorobenzene	98.6			64.0-132		05/21/2018 16:10	WG1114208

- 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	05/17/2018 16:56	WG1112686
Acrylonitrile	U		0.873	5.00	1	05/17/2018 16:56	WG1112686
Benzene	U		0.0896	0.500	1	05/17/2018 16:56	WG1112686
Bromobenzene	U		0.133	0.500	1	05/17/2018 16:56	WG1112686
Bromodichloromethane	U		0.0800	0.500	1	05/17/2018 16:56	WG1112686
Bromochloromethane	U		0.145	0.500	1	05/17/2018 16:56	WG1112686
Bromoform	U		0.186	0.500	1	05/17/2018 16:56	WG1112686
Bromomethane	U		0.157	2.50	1	05/17/2018 16:56	WG1112686
n-Butylbenzene	U		0.143	0.500	1	05/17/2018 16:56	WG1112686
sec-Butylbenzene	U		0.134	0.500	1	05/17/2018 16:56	WG1112686
tert-Butylbenzene	U		0.183	0.500	1	05/17/2018 16:56	WG1112686
Carbon disulfide	U		0.101	0.500	1	05/17/2018 16:56	WG1112686
Carbon tetrachloride	U	<u>JO</u>	0.159	0.500	1	05/17/2018 16:56	WG1112686
Chlorobenzene	U		0.140	0.500	1	05/17/2018 16:56	WG1112686
Chlorodibromomethane	U		0.128	0.500	1	05/17/2018 16:56	WG1112686
Chloroethane	U		0.141	2.50	1	05/17/2018 16:56	WG1112686
Chloroform	U		0.0860	0.500	1	05/17/2018 16:56	WG1112686
Chloromethane	U		0.153	1.25	1	05/17/2018 16:56	WG1112686
2-Chlorotoluene	U		0.111	0.500	1	05/17/2018 16:56	WG1112686
4-Chlorotoluene	U		0.0972	0.500	1	05/17/2018 16:56	WG1112686
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/17/2018 16:56	WG1112686
1,2-Dibromoethane	U		0.193	0.500	1	05/17/2018 16:56	WG1112686
Dibromomethane	U		0.117	0.500	1	05/17/2018 16:56	WG1112686
1,2-Dichlorobenzene	U		0.101	0.500	1	05/17/2018 16:56	WG1112686
1,3-Dichlorobenzene	U		0.130	0.500	1	05/17/2018 16:56	WG1112686
1,4-Dichlorobenzene	U		0.121	0.500	1	05/17/2018 16:56	WG1112686
Dichlorodifluoromethane	U		0.127	2.50	1	05/17/2018 16:56	WG1112686
1,1-Dichloroethane	U		0.114	0.500	1	05/17/2018 16:56	WG1112686
1,2-Dichloroethane	U		0.108	0.500	1	05/17/2018 16:56	WG1112686
1,1-Dichloroethene	U		0.188	0.500	1	05/17/2018 16:56	WG1112686
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/17/2018 16:56	WG1112686
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/17/2018 16:56	WG1112686
1,2-Dichloropropane	U		0.190	0.500	1	05/17/2018 16:56	WG1112686
1,1-Dichloropropene	U		0.128	0.500	1	05/17/2018 16:56	WG1112686
1,3-Dichloropropane	U		0.147	1.00	1	05/17/2018 16:56	WG1112686
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/17/2018 16:56	WG1112686
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/17/2018 16:56	WG1112686
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/17/2018 16:56	WG1112686
2,2-Dichloropropane	U	<u>JO</u>	0.0929	0.500	1	05/17/2018 16:56	WG1112686
Di-isopropyl ether	U		0.0924	0.500	1	05/17/2018 16:56	WG1112686
Ethylbenzene	U		0.158	0.500	1	05/17/2018 16:56	WG1112686
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/17/2018 16:56	WG1112686
2-Hexanone	U		0.757	5.00	1	05/17/2018 16:56	WG1112686
n-Hexane	U		0.305	5.00	1	05/17/2018 16:56	WG1112686
Iodomethane	U		0.377	10.0	1	05/17/2018 16:56	WG1112686
Isopropylbenzene	U		0.126	0.500	1	05/17/2018 16:56	WG1112686
p-Isopropyltoluene	U		0.138	0.500	1	05/17/2018 16:56	WG1112686
2-Butanone (MEK)	U		1.28	5.00	1	05/17/2018 16:56	WG1112686
Methylene Chloride	U		1.07	2.50	1	05/17/2018 16:56	WG1112686
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/17/2018 16:56	WG1112686
Methyl tert-butyl ether	U		0.102	0.500	1	05/17/2018 16:56	WG1112686
Naphthalene	U		0.174	2.50	1	05/17/2018 16:56	WG1112686
n-Propylbenzene	U		0.162	0.500	1	05/17/2018 16:56	WG1112686
Styrene	U		0.117	0.500	1	05/17/2018 16:56	WG1112686
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/17/2018 16:56	WG1112686
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/17/2018 16:56	WG1112686

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	<u>JO J4</u>	0.164	0.500	1	05/17/2018 16:56	WG1112686
Tetrachloroethene	U		0.199	0.500	1	05/17/2018 16:56	WG1112686
Toluene	U		0.412	0.500	1	05/17/2018 16:56	WG1112686
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/17/2018 16:56	WG1112686
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/17/2018 16:56	WG1112686
1,1,1-Trichloroethane	U	<u>JO</u>	0.0940	0.500	1	05/17/2018 16:56	WG1112686
1,1,2-Trichloroethane	U		0.186	0.500	1	05/17/2018 16:56	WG1112686
Trichloroethene	U		0.153	0.500	1	05/17/2018 16:56	WG1112686
Trichlorofluoromethane	U		0.130	2.50	1	05/17/2018 16:56	WG1112686
1,2,3-Trichloropropane	U		0.247	2.50	1	05/17/2018 16:56	WG1112686
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/17/2018 16:56	WG1112686
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/17/2018 16:56	WG1112686
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/17/2018 16:56	WG1112686
Vinyl acetate	U		0.645	5.00	1	05/17/2018 16:56	WG1112686
Vinyl chloride	U		0.118	0.500	1	05/17/2018 16:56	WG1112686
Xylenes, Total	U		0.316	1.50	1	05/17/2018 16:56	WG1112686
(S) Toluene-d8	104			80.0-120		05/17/2018 16:56	WG1112686
(S) Dibromofluoromethane	95.7			76.0-123		05/17/2018 16:56	WG1112686
(S) 4-Bromofluorobenzene	121	<u>J1</u>		80.0-120		05/17/2018 16:56	WG1112686

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



Method Blank (MB)

(MB) R3311290-1 05/18/18 11:38

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L994614-01 Original Sample (OS) • Duplicate (DUP)

(OS) L994614-01 05/18/18 11:38 • (DUP) R3311290-3 05/18/18 11:38

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	56.6	57.1	1	0.977		5

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3311290-2 05/18/18 11:38

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) R3310898-2 05/17/18 13:21

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
Carbon disulfide	U		0.101	0.500
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	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-1,4-Dichloro-2-butene	U		0.257	5.00
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
2-Hexanone	U		0.757	5.00
cis-1,3-Dichloropropene	U		0.0976	0.500
n-Hexane	U		0.305	5.00
trans-1,3-Dichloropropene	U		0.222	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3310898-2 05/17/18 13:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
2,2-Dichloropropane	U		0.0929	0.500
Iodomethane	U		0.377	10.0
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
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
Vinyl acetate	U		0.645	5.00
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
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	104			80.0-120
(S) Dibromofluoromethane	94.8			76.0-123
(S) 4-Bromofluorobenzene	120			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)

(LCS) R3310898-1 05/17/18 12:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Carbon disulfide	25.0	23.5	94.2	55.0-127	
trans-1,4-Dichloro-2-butene	25.0	24.2	96.6	55.0-134	
2-Hexanone	125	152	122	58.0-147	
n-Hexane	25.0	26.0	104	56.0-124	
Iodomethane	125	113	90.7	57.0-140	
Acetone	125	150	120	10.0-160	
Acrylonitrile	125	151	121	60.0-142	
Benzene	25.0	24.1	96.3	69.0-123	
Bromobenzene	25.0	28.4	114	79.0-120	
Bromodichloromethane	25.0	22.5	89.9	76.0-120	
Bromochloromethane	25.0	23.4	93.6	76.0-122	
Bromoform	25.0	29.0	116	67.0-132	
Bromomethane	25.0	21.1	84.4	18.0-160	
n-Butylbenzene	25.0	23.4	93.7	72.0-126	
sec-Butylbenzene	25.0	26.9	108	74.0-121	
tert-Butylbenzene	25.0	27.3	109	75.0-122	
Carbon tetrachloride	25.0	19.5	78.1	63.0-122	
Chlorobenzene	25.0	24.8	99.1	79.0-121	
Chlorodibromomethane	25.0	23.4	93.6	75.0-125	
Chloroethane	25.0	22.7	91.0	47.0-152	
Chloroform	25.0	22.1	88.6	72.0-121	
Chloromethane	25.0	32.2	129	48.0-139	
2-Chlorotoluene	25.0	28.6	115	74.0-122	
Vinyl acetate	125	128	103	46.0-160	
4-Chlorotoluene	25.0	28.5	114	79.0-120	
1,2-Dibromo-3-Chloropropane	25.0	22.7	90.9	64.0-127	
1,2-Dibromoethane	25.0	24.8	99.1	77.0-123	
Dibromomethane	25.0	23.0	91.9	78.0-120	
1,2-Dichlorobenzene	25.0	22.4	89.5	80.0-120	
1,3-Dichlorobenzene	25.0	24.3	97.2	72.0-123	
1,4-Dichlorobenzene	25.0	23.1	92.4	77.0-120	
Dichlorodifluoromethane	25.0	25.5	102	49.0-155	
1,1-Dichloroethane	25.0	25.2	101	70.0-126	
1,2-Dichloroethane	25.0	22.4	89.6	67.0-126	
1,1-Dichloroethene	25.0	21.8	87.3	64.0-129	
cis-1,2-Dichloroethene	25.0	22.6	90.3	73.0-120	
trans-1,2-Dichloroethene	25.0	22.9	91.7	71.0-121	
1,2-Dichloropropane	25.0	27.1	108	75.0-125	
1,1-Dichloropropene	25.0	24.1	96.2	71.0-129	
1,3-Dichloropropane	25.0	25.7	103	80.0-121	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS)

(LCS) R3310898-1 05/17/18 12:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
cis-1,3-Dichloropropene	25.0	25.4	102	79.0-123	
trans-1,3-Dichloropropene	25.0	24.3	97.4	74.0-127	
2,2-Dichloropropane	25.0	21.6	86.4	60.0-125	
Di-isopropyl ether	25.0	30.0	120	59.0-133	
Ethylbenzene	25.0	25.1	101	77.0-120	
Hexachloro-1,3-butadiene	25.0	22.8	91.2	64.0-131	
Isopropylbenzene	25.0	29.9	120	75.0-120	
p-Isopropyltoluene	25.0	25.9	104	74.0-126	
2-Butanone (MEK)	125	143	114	37.0-158	
Methylene Chloride	25.0	23.0	92.1	66.0-121	
4-Methyl-2-pentanone (MIBK)	125	153	122	59.0-143	
Methyl tert-butyl ether	25.0	22.7	90.9	64.0-123	
Naphthalene	25.0	21.7	86.8	62.0-128	
n-Propylbenzene	25.0	29.3	117	79.0-120	
Styrene	25.0	29.9	119	78.0-124	
1,1,1,2-Tetrachloroethane	25.0	24.0	96.1	75.0-122	
1,1,2,2-Tetrachloroethane	25.0	29.1	116	71.0-122	
Tetrachloroethene	25.0	24.5	98.0	70.0-127	
Toluene	25.0	24.4	97.6	77.0-120	
1,1,2-Trichlorotrifluoroethane	25.0	12.9	51.7	61.0-136	<u>J4</u>
1,2,3-Trichlorobenzene	25.0	22.3	89.1	61.0-133	
1,2,4-Trichlorobenzene	25.0	22.7	90.7	69.0-129	
1,1,1-Trichloroethane	25.0	21.3	85.0	68.0-122	
1,1,2-Trichloroethane	25.0	24.0	95.8	78.0-120	
Trichloroethene	25.0	23.8	95.3	78.0-120	
Trichlorofluoromethane	25.0	21.6	86.2	56.0-137	
1,2,3-Trichloropropane	25.0	28.9	115	72.0-124	
1,2,3-Trimethylbenzene	25.0	24.1	96.4	75.0-120	
1,2,4-Trimethylbenzene	25.0	26.8	107	75.0-120	
1,3,5-Trimethylbenzene	25.0	29.4	117	75.0-120	
Vinyl chloride	25.0	26.5	106	64.0-133	
Xylenes, Total	75.0	74.2	98.9	77.0-120	
<i>(S) Toluene-d8</i>			105	80.0-120	
<i>(S) Dibromofluoromethane</i>			93.3	76.0-123	
<i>(S) 4-Bromofluorobenzene</i>			120	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) R3311661-2 05/21/18 09:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3311661-2 05/21/18 09:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,2,3-Trichlorobenzene	0.00106	U	0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	107			80.0-120
(S) Dibromofluoromethane	88.0			74.0-131
(S) 4-Bromofluorobenzene	93.3			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)

(LCS) R3311661-1 05/21/18 08:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.624	99.9	25.3-178	
Acrylonitrile	0.625	0.596	95.3	57.8-143	



Laboratory Control Sample (LCS)

(LCS) R3311661-1 05/21/18 08:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.106	84.6	72.6-120	
Bromobenzene	0.125	0.100	80.2	80.3-115	J4
Bromodichloromethane	0.125	0.113	90.0	75.3-119	
Bromochloromethane	0.125	0.0999	79.9	79.7-123	
Bromoform	0.125	0.157	125	69.1-135	
n-Butylbenzene	0.125	0.147	117	74.2-134	
sec-Butylbenzene	0.125	0.131	105	77.8-129	
tert-Butylbenzene	0.125	0.130	104	77.2-129	
Carbon disulfide	0.125	0.110	88.3	49.9-136	
Chlorobenzene	0.125	0.109	87.0	78.9-122	
Chlorodibromomethane	0.125	0.127	102	76.4-126	
Chloroethane	0.125	0.0981	78.5	47.2-147	
Chloroform	0.125	0.0882	70.5	73.3-122	J4
Chloromethane	0.125	0.0791	63.3	53.1-135	
2-Chlorotoluene	0.125	0.116	92.4	74.6-127	
4-Chlorotoluene	0.125	0.112	89.3	79.5-123	
1,2-Dibromo-3-Chloropropane	0.125	0.104	83.2	64.9-131	
1,2-Dibromoethane	0.125	0.114	91.1	78.7-123	
Dibromomethane	0.125	0.116	92.9	78.5-117	
1,2-Dichlorobenzene	0.125	0.113	90.1	83.6-119	
1,3-Dichlorobenzene	0.125	0.109	87.3	75.9-129	
1,4-Dichlorobenzene	0.125	0.104	83.3	81.0-115	
trans-1,4-Dichloro-2-butene	0.125	0.0880	70.4	58.4-125	
1,1-Dichloroethane	0.125	0.117	93.5	71.7-125	
1,2-Dichloroethane	0.125	0.0908	72.7	67.2-121	
1,1-Dichloroethene	0.125	0.105	84.0	60.6-133	
cis-1,2-Dichloroethene	0.125	0.108	86.3	76.1-121	
trans-1,2-Dichloroethene	0.125	0.0960	76.8	70.7-124	
1,2-Dichloropropane	0.125	0.102	81.7	76.9-123	
1,1-Dichloropropene	0.125	0.105	83.6	71.2-126	
1,3-Dichloropropane	0.125	0.149	119	80.3-114	J4
cis-1,3-Dichloropropene	0.125	0.118	94.6	77.3-123	
trans-1,3-Dichloropropene	0.125	0.109	87.0	73.0-127	
2,2-Dichloropropane	0.125	0.102	81.7	61.9-132	
Di-isopropyl ether	0.125	0.139	111	67.2-131	
Ethylbenzene	0.125	0.132	105	78.6-124	
Hexachloro-1,3-butadiene	0.125	0.130	104	69.2-136	
2-Hexanone	0.625	0.752	120	62.7-150	
n-Hexane	0.125	0.146	117	59.9-125	
Iodomethane	0.625	0.764	122	63.3-136	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS)

(LCS) R3311661-1 05/21/18 08:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Isopropylbenzene	0.125	0.125	100	79.4-126	
p-Isopropyltoluene	0.125	0.125	100	75.4-132	
2-Butanone (MEK)	0.625	0.553	88.4	44.5-154	
Methylene Chloride	0.125	0.0938	75.0	68.2-119	
4-Methyl-2-pentanone (MIBK)	0.625	0.796	127	61.1-138	
Methyl tert-butyl ether	0.125	0.132	106	70.2-122	
Naphthalene	0.125	0.124	98.9	69.9-132	
n-Propylbenzene	0.125	0.132	106	80.2-124	
Styrene	0.125	0.129	103	79.4-124	
1,1,1,2-Tetrachloroethane	0.125	0.141	113	76.7-127	
1,1,2,2-Tetrachloroethane	0.125	0.108	86.8	78.8-124	
Tetrachloroethene	0.125	0.149	119	71.1-133	
Toluene	0.125	0.128	102	76.7-116	
1,2,3-Trichlorobenzene	0.125	0.118	94.7	72.5-137	
1,2,4-Trichlorobenzene	0.125	0.110	88.1	74.0-137	
1,1,1-Trichloroethane	0.125	0.0987	79.0	69.9-127	
1,1,2-Trichloroethane	0.125	0.116	92.9	81.9-119	
Trichloroethene	0.125	0.115	92.3	77.2-122	
Trichlorofluoromethane	0.125	0.113	90.5	51.5-151	
1,2,3-Trichloropropane	0.125	0.109	87.6	74.0-124	
1,2,3-Trimethylbenzene	0.125	0.153	122	79.4-118	J4
1,2,4-Trimethylbenzene	0.125	0.130	104	77.1-124	
1,3,5-Trimethylbenzene	0.125	0.137	110	79.0-125	
Vinyl acetate	0.625	0.725	116	39.8-156	
Vinyl chloride	0.125	0.0787	63.0	58.4-134	
Xylenes, Total	0.375	0.391	104	78.1-123	
<i>(S) Toluene-d8</i>			104	80.0-120	
<i>(S) Dibromofluoromethane</i>			85.0	74.0-131	
<i>(S) 4-Bromofluorobenzene</i>			97.0	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) R3311690-3 05/21/18 10:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Bromomethane	U		0.00370	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
(S) Toluene-d8	101			80.0-120
(S) Dibromofluoromethane	89.9			74.0-131
(S) 4-Bromofluorobenzene	98.4			64.0-132

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

(LCS) R3311690-1 05/21/18 09:18 • (LCSD) R3311690-2 05/21/18 09:38

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 %
Bromomethane	0.125	0.0978	0.0978	78.2	78.2	23.0-191			0.0470	20
Carbon tetrachloride	0.125	0.122	0.119	97.3	95.3	69.4-129			2.17	20
Dichlorodifluoromethane	0.125	0.108	0.0946	86.2	75.7	50.9-139			12.9	20
1,1,2-Trichlorotrifluoroethane	0.125	0.116	0.118	92.9	94.7	62.6-138			1.88	20
(S) Toluene-d8				100	98.8	80.0-120				
(S) Dibromofluoromethane				81.8	81.7	74.0-131				
(S) 4-Bromofluorobenzene				99.2	98.6	64.0-132				

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

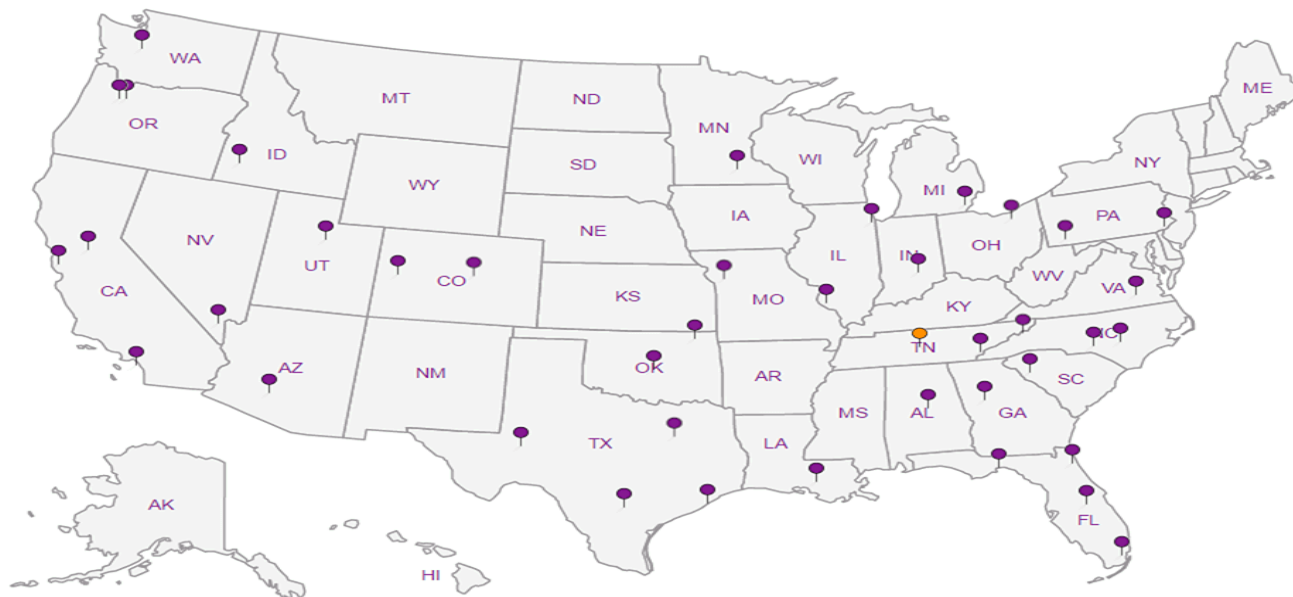
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater 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.
1215 4th Ave STE 1350
SEATTLE, WA 98161

Billing Information:
Attn: Accounts Payable
PES ENVIRONMENTAL, INC.
1215 4th Ave STE 1350
SEATTLE, WA 98161

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



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

City/State Collected:
Seattle, WA

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

Client Project #
1413.001.05.601

Lab Project #

Collected by (print):
Karsten Springstead

Site/Facility ID #
1413.001.05.601

P.O. #
1413.001.05.601

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												
MW-161-140 (KWS)																		
MW-161-140	Grab	SS	140	5-15-18	1310	5	X	X										
TRIP BLANK - 051518						1	X											

V8260C VOCs 40m / NaHSO4/KBr/Moist
dry wt, voc screen 2oz Cir-No Pres

L# L994604

E116

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Remarks	Sample # (lab only)
MW-161-140	01
STANDARD TAT	02

* 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 # 4269 9220 0491

Sample Receipt Checklist

COC Seal Present/Intact: NP N

COC Signed/Accurate: N

Bottles arrive intact: N

Correct bottles used: N

Sufficient volume sent: N

If Applicable
VGA Zero Headpace: Y N

Preservation Correct/Checked: Y N

Relinquished by: (Signature)
[Signature]

Date: 5-15-18 Time: 1430

Relinquished by: (Signature)

Date: Time:

Relinquished by: (Signature)

Date: Time:

Date: 5-15-18 Time: 1430

Date: Time:

Date: Time:

Received by: (Signature)

Received by: (Signature)

Received for lab by: (Signature)
[Signature] 861

Trip Blank Received: Yes / No
1 40 / MeOH TBR

Temp: 0.840 °C Bottles Received: 5

Date: 5/17/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.6		1	05/18/2018 11:38	WG1112874

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		0.0168	0.0306	1	05/21/2018 12:48	WG1114084
Acrylonitrile	U		0.00233	0.0153	1	05/21/2018 12:48	WG1114084
Benzene	0.000580	J	0.000490	0.00123	1	05/21/2018 12:48	WG1114084
Bromobenzene	U	J4	0.00129	0.0153	1	05/21/2018 12:48	WG1114084
Bromodichloromethane	U		0.000966	0.00306	1	05/21/2018 12:48	WG1114084
Bromochloromethane	U		0.00139	0.00613	1	05/21/2018 12:48	WG1114084
Bromoform	U		0.00733	0.0306	1	05/21/2018 12:48	WG1114084
Bromomethane	U		0.00454	0.0153	1	05/21/2018 16:10	WG1114208
n-Butylbenzene	U		0.00471	0.0153	1	05/21/2018 12:48	WG1114084
sec-Butylbenzene	U		0.00310	0.0153	1	05/21/2018 12:48	WG1114084
tert-Butylbenzene	U		0.00190	0.00613	1	05/21/2018 12:48	WG1114084
Carbon disulfide	U		0.00498	0.0153	1	05/21/2018 12:48	WG1114084
Carbon tetrachloride	U		0.00132	0.00613	1	05/21/2018 16:10	WG1114208
Chlorobenzene	U		0.000702	0.00306	1	05/21/2018 12:48	WG1114084
Chlorodibromomethane	U		0.000552	0.00306	1	05/21/2018 12:48	WG1114084
Chloroethane	U		0.00132	0.00613	1	05/21/2018 12:48	WG1114084
Chloroform	U	J4	0.000509	0.00306	1	05/21/2018 12:48	WG1114084
Chloromethane	U	UJ	0.00170	0.0153	1	05/21/2018 12:48	WG1114084
2-Chlorotoluene	U		0.00113	0.00306	1	05/21/2018 12:48	WG1114084
4-Chlorotoluene	U		0.00139	0.00613	1	05/21/2018 12:48	WG1114084
1,2-Dibromo-3-Chloropropane	U		0.00625	0.0306	1	05/21/2018 12:48	WG1114084
1,2-Dibromoethane	U		0.000644	0.00306	1	05/21/2018 12:48	WG1114084
Dibromomethane	U		0.00123	0.00613	1	05/21/2018 12:48	WG1114084
1,2-Dichlorobenzene	U		0.00178	0.00613	1	05/21/2018 12:48	WG1114084
1,3-Dichlorobenzene	U		0.00208	0.00613	1	05/21/2018 12:48	WG1114084
1,4-Dichlorobenzene	U		0.00241	0.00613	1	05/21/2018 12:48	WG1114084
Dichlorodifluoromethane	U		0.00100	0.00306	1	05/21/2018 16:10	WG1114208
1,1-Dichloroethane	U		0.000705	0.00306	1	05/21/2018 12:48	WG1114084
1,2-Dichloroethane	U		0.000582	0.00306	1	05/21/2018 12:48	WG1114084
1,1-Dichloroethene	U		0.000613	0.00306	1	05/21/2018 12:48	WG1114084
cis-1,2-Dichloroethene	U		0.000846	0.00306	1	05/21/2018 12:48	WG1114084
trans-1,2-Dichloroethene	U		0.00175	0.00613	1	05/21/2018 12:48	WG1114084
1,2-Dichloropropane	U		0.00156	0.00613	1	05/21/2018 12:48	WG1114084
1,1-Dichloropropene	U		0.000858	0.00306	1	05/21/2018 12:48	WG1114084
1,3-Dichloropropane	U	UJ	0.00215	0.00613	1	05/21/2018 12:48	WG1114084
cis-1,3-Dichloropropene	U	J4	0.000831	0.00306	1	05/21/2018 12:48	WG1114084
trans-1,3-Dichloropropene	U		0.00188	0.00613	1	05/21/2018 12:48	WG1114084
trans-1,4-Dichloro-2-butene	U		0.00172	0.00613	1	05/21/2018 12:48	WG1114084
2,2-Dichloropropane	U		0.000972	0.00306	1	05/21/2018 12:48	WG1114084
Di-isopropyl ether	U		0.000429	0.00123	1	05/21/2018 12:48	WG1114084
Ethylbenzene	U		0.000650	0.00306	1	05/21/2018 12:48	WG1114084
Hexachloro-1,3-butadiene	U		0.0156	0.0306	1	05/21/2018 12:48	WG1114084
2-Hexanone	U		0.0123	0.0306	1	05/21/2018 12:48	WG1114084
n-Hexane	U		0.00130	0.00613	1	05/21/2018 12:48	WG1114084
Iodomethane	U		0.00742	0.0153	1	05/21/2018 12:48	WG1114084
Isopropylbenzene	U		0.00106	0.00306	1	05/21/2018 12:48	WG1114084
p-Isopropyltoluene	U		0.00286	0.00613	1	05/21/2018 12:48	WG1114084
2-Butanone (MEK)	U		0.0153	0.0306	1	05/21/2018 12:48	WG1114084
Methylene Chloride	U		0.00814	0.0306	1	05/21/2018 12:48	WG1114084
4-Methyl-2-pentanone (MIBK)	U		0.0123	0.0306	1	05/21/2018 12:48	WG1114084

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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
Methyl tert-butyl ether	U		0.000362	0.00123	1	05/21/2018 12:48	WG1114084
Naphthalene	U		0.00382	0.0153	1	05/21/2018 12:48	WG1114084
n-Propylbenzene	U		0.00145	0.00613	1	05/21/2018 12:48	WG1114084
Styrene	U		0.00335	0.0153	1	05/21/2018 12:48	WG1114084
1,1,1,2-Tetrachloroethane	U		0.000613	0.00306	1	05/21/2018 12:48	WG1114084
1,1,2,2-Tetrachloroethane	U		0.000478	0.00306	1	05/21/2018 12:48	WG1114084
1,1,2-Trichlorotrifluoroethane	U		0.000827	0.00306	1	05/21/2018 16:10	WG1114208
Tetrachloroethene	U		0.000858	0.00306	1	05/21/2018 12:48	WG1114084
Toluene	0.00175	J J	0.00153	0.00613	1	05/21/2018 12:48	WG1114084
1,2,3-Trichlorobenzene	U		0.000766	0.00306	1	05/21/2018 12:48	WG1114084
1,2,4-Trichlorobenzene	U		0.00591	0.0153	1	05/21/2018 12:48	WG1114084
1,1,1-Trichloroethane	U		0.000337	0.00306	1	05/21/2018 12:48	WG1114084
1,1,2-Trichloroethane	U		0.00108	0.00306	1	05/21/2018 12:48	WG1114084
Trichloroethene	U		0.000490	0.00123	1	05/21/2018 12:48	WG1114084
Trichlorofluoromethane	U		0.000613	0.00306	1	05/21/2018 12:48	WG1114084
1,2,3-Trichloropropane	U		0.00625	0.0153	1	05/21/2018 12:48	WG1114084
1,2,4-Trimethylbenzene	U		0.00142	0.00613	1	05/21/2018 12:48	WG1114084
1,2,3-Trimethylbenzene	U	UJ J4	0.00141	0.00613	1	05/21/2018 12:48	WG1114084
1,3,5-Trimethylbenzene	U		0.00132	0.00613	1	05/21/2018 12:48	WG1114084
Vinyl acetate	U		0.00431	0.0153	1	05/21/2018 12:48	WG1114084
Vinyl chloride	U	UJ JO	0.000837	0.00306	1	05/21/2018 12:48	WG1114084
Xylenes, Total	U		0.00586	0.00797	1	05/21/2018 12:48	WG1114084
(S) Toluene-d8	122	J1		80.0-120		05/21/2018 12:48	WG1114084
(S) Toluene-d8	101			80.0-120		05/21/2018 16:10	WG1114208
(S) Dibromofluoromethane	80.5			74.0-131		05/21/2018 12:48	WG1114084
(S) Dibromofluoromethane	89.2			74.0-131		05/21/2018 16:10	WG1114208
(S) 4-Bromofluorobenzene	95.6			64.0-132		05/21/2018 12:48	WG1114084
(S) 4-Bromofluorobenzene	98.6			64.0-132		05/21/2018 16:10	WG1114208

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
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- 6 Qc
- 7 Gl
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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	05/17/2018 16:56	WG1112686
Acrylonitrile	U		0.873	5.00	1	05/17/2018 16:56	WG1112686
Benzene	U		0.0896	0.500	1	05/17/2018 16:56	WG1112686
Bromobenzene	U		0.133	0.500	1	05/17/2018 16:56	WG1112686
Bromodichloromethane	U		0.0800	0.500	1	05/17/2018 16:56	WG1112686
Bromochloromethane	U		0.145	0.500	1	05/17/2018 16:56	WG1112686
Bromoform	U		0.186	0.500	1	05/17/2018 16:56	WG1112686
Bromomethane	U		0.157	2.50	1	05/17/2018 16:56	WG1112686
n-Butylbenzene	U		0.143	0.500	1	05/17/2018 16:56	WG1112686
sec-Butylbenzene	U		0.134	0.500	1	05/17/2018 16:56	WG1112686
tert-Butylbenzene	U		0.183	0.500	1	05/17/2018 16:56	WG1112686
Carbon disulfide	U		0.101	0.500	1	05/17/2018 16:56	WG1112686
Carbon tetrachloride	U	UJ JO	0.159	0.500	1	05/17/2018 16:56	WG1112686
Chlorobenzene	U		0.140	0.500	1	05/17/2018 16:56	WG1112686
Chlorodibromomethane	U		0.128	0.500	1	05/17/2018 16:56	WG1112686
Chloroethane	U		0.141	2.50	1	05/17/2018 16:56	WG1112686
Chloroform	U		0.0860	0.500	1	05/17/2018 16:56	WG1112686
Chloromethane	U		0.153	1.25	1	05/17/2018 16:56	WG1112686
2-Chlorotoluene	U		0.111	0.500	1	05/17/2018 16:56	WG1112686
4-Chlorotoluene	U		0.0972	0.500	1	05/17/2018 16:56	WG1112686
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	05/17/2018 16:56	WG1112686
1,2-Dibromoethane	U		0.193	0.500	1	05/17/2018 16:56	WG1112686
Dibromomethane	U		0.117	0.500	1	05/17/2018 16:56	WG1112686
1,2-Dichlorobenzene	U		0.101	0.500	1	05/17/2018 16:56	WG1112686
1,3-Dichlorobenzene	U		0.130	0.500	1	05/17/2018 16:56	WG1112686
1,4-Dichlorobenzene	U		0.121	0.500	1	05/17/2018 16:56	WG1112686
Dichlorodifluoromethane	U		0.127	2.50	1	05/17/2018 16:56	WG1112686
1,1-Dichloroethane	U		0.114	0.500	1	05/17/2018 16:56	WG1112686
1,2-Dichloroethane	U		0.108	0.500	1	05/17/2018 16:56	WG1112686
1,1-Dichloroethene	U		0.188	0.500	1	05/17/2018 16:56	WG1112686
cis-1,2-Dichloroethene	U		0.0933	0.500	1	05/17/2018 16:56	WG1112686
trans-1,2-Dichloroethene	U		0.152	0.500	1	05/17/2018 16:56	WG1112686
1,2-Dichloropropane	U		0.190	0.500	1	05/17/2018 16:56	WG1112686
1,1-Dichloropropene	U		0.128	0.500	1	05/17/2018 16:56	WG1112686
1,3-Dichloropropane	U		0.147	1.00	1	05/17/2018 16:56	WG1112686
cis-1,3-Dichloropropene	U		0.0976	0.500	1	05/17/2018 16:56	WG1112686
trans-1,3-Dichloropropene	U		0.222	0.500	1	05/17/2018 16:56	WG1112686
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	05/17/2018 16:56	WG1112686
2,2-Dichloropropane	U	UJ JO	0.0929	0.500	1	05/17/2018 16:56	WG1112686
Di-isopropyl ether	U		0.0924	0.500	1	05/17/2018 16:56	WG1112686
Ethylbenzene	U		0.158	0.500	1	05/17/2018 16:56	WG1112686
Hexachloro-1,3-butadiene	U		0.157	1.00	1	05/17/2018 16:56	WG1112686
2-Hexanone	U		0.757	5.00	1	05/17/2018 16:56	WG1112686
n-Hexane	U		0.305	5.00	1	05/17/2018 16:56	WG1112686
Iodomethane	U		0.377	10.0	1	05/17/2018 16:56	WG1112686
Isopropylbenzene	U		0.126	0.500	1	05/17/2018 16:56	WG1112686
p-Isopropyltoluene	U		0.138	0.500	1	05/17/2018 16:56	WG1112686
2-Butanone (MEK)	U		1.28	5.00	1	05/17/2018 16:56	WG1112686
Methylene Chloride	U		1.07	2.50	1	05/17/2018 16:56	WG1112686
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	05/17/2018 16:56	WG1112686
Methyl tert-butyl ether	U		0.102	0.500	1	05/17/2018 16:56	WG1112686
Naphthalene	U		0.174	2.50	1	05/17/2018 16:56	WG1112686
n-Propylbenzene	U		0.162	0.500	1	05/17/2018 16:56	WG1112686
Styrene	U		0.117	0.500	1	05/17/2018 16:56	WG1112686
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	05/17/2018 16:56	WG1112686
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	05/17/2018 16:56	WG1112686

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 ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U	UJ JO J4	0.164	0.500	1	05/17/2018 16:56	WG1112686
Tetrachloroethene	U		0.199	0.500	1	05/17/2018 16:56	WG1112686
Toluene	U		0.412	0.500	1	05/17/2018 16:56	WG1112686
1,2,3-Trichlorobenzene	U		0.164	0.500	1	05/17/2018 16:56	WG1112686
1,2,4-Trichlorobenzene	U		0.355	0.500	1	05/17/2018 16:56	WG1112686
1,1,1-Trichloroethane	U	UJ JO	0.0940	0.500	1	05/17/2018 16:56	WG1112686
1,1,2-Trichloroethane	U		0.186	0.500	1	05/17/2018 16:56	WG1112686
Trichloroethene	U		0.153	0.500	1	05/17/2018 16:56	WG1112686
Trichlorofluoromethane	U		0.130	2.50	1	05/17/2018 16:56	WG1112686
1,2,3-Trichloropropane	U		0.247	2.50	1	05/17/2018 16:56	WG1112686
1,2,4-Trimethylbenzene	U		0.123	0.500	1	05/17/2018 16:56	WG1112686
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	05/17/2018 16:56	WG1112686
1,3,5-Trimethylbenzene	U		0.124	0.500	1	05/17/2018 16:56	WG1112686
Vinyl acetate	U		0.645	5.00	1	05/17/2018 16:56	WG1112686
Vinyl chloride	U		0.118	0.500	1	05/17/2018 16:56	WG1112686
Xylenes, Total	U		0.316	1.50	1	05/17/2018 16:56	WG1112686
(S) Toluene-d8	104			80.0-120		05/17/2018 16:56	WG1112686
(S) Dibromofluoromethane	95.7			76.0-123		05/17/2018 16:56	WG1112686
(S) 4-Bromofluorobenzene	121	J1		80.0-120		05/17/2018 16:56	WG1112686

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

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MEMORANDUM

TO: Project File **DATE:** June 14, 2018
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: American Linen Data Validation
PROJECT #: 1413.001.05.304
TASK: May 2018 – Soil Samples
LAB: ESC Sample Delivery Groups L993391, L993557, L993885, and L994604

Forty-seven (47) soil samples including one (1) field duplicate, and two (2) trip blanks were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington, on May 8, 11, 14, and 15, 2018. The samples were shipped and delivered to ESC Lab Sciences (ESC) of Mount Juliet, TN for laboratory analysis. Two samples were placed on hold. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C; and
- Total Solids by Standard Methods 2540 G-2011.

Associated sample data are reported in four ESC SDGs (L993391, L993557, L993885, and L994604). The quality assurance review of the sample data are summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation 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 Superfund Organic Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with the following discussion:

- SDG L993391: Two samples (MW-160-45 and MW-160-80) were placed on hold. The associated chain of custody does not show that a hold was placed on sample MW-160-80 however no analyses are requested. No action was taken other than to note this.

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 in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation less than 6°C. 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 EPA recommended holding time of fourteen days for soils from the date of collection. All holding time criteria were met.

Total Solids by SM 2540 G 2011:

Samples were analyzed within the USEPA recommended holding time of seven days for total solids.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however ESC's notes indicate the following for USEPA Method 8260C:

- SDG L993391: Continuing calibration verification (CCV) issues were noted by ESC for several compounds (chloromethane and methyl tert-butyl ether) associated with analytical batch WG1110982 (analyzed on May 15, 2018). Associated results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**
- SDG L993391: CCV issues were noted by ESC for several compounds (bromoform, chloromethane, and methyl tert-butyl ether) associated with analytical batch WG1110914 (analyzed on May 13, 2018). Associated results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Sample MW-160-110 laboratory qualified (J0) results are estimated and qualified (J/UJ).**
- SDG L993557: CCV issues were noted by ESC for several compounds (bromoform, chloromethane and methyl tert-butyl ether) associated with analytical batch WG1110914 (analyzed on May 13, 2018). Associated results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**
- SDG L993885: CCV issues were noted by ESC for methyl tert-butyl ether associated with analytical batch WG1110914 (analyzed on May 16, 2018). Associated results are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of

laboratory acceptance criteria. **Associated samples with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDGs L993557 and L993885: CCV issues were noted by ESC for several compounds associated with analytical batch WG1111989 (analyzed on May 16, 2018). Trip blank results are qualified by the laboratory “J0” to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Trip blank result with laboratory qualified (J0) results are estimated and qualified (J/UJ).**
- SDG L994604: CCV issues were noted by ESC for several compounds (chloromethane and vinyl chloride) associated with analytical batch WG1114084 (analyzed on May 21, 2018). Associated results are qualified by the laboratory “J0” to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated samples with laboratory qualified (J0) results are estimated and qualified (J/UJ).**
- SDGs L994604: CCV issues were noted by ESC for several compounds associated with analytical batch WG1112686 (analyzed on May 17, 2018). Trip blank results are qualified by the laboratory “J0” to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Trip blank result with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

Method Blank Results

USEPA Method 8260C:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were not detected in the method blanks at or above the reporting detection limits (RDLs) with the following exceptions:

- SDG L993391 Analytical batch WG1110982: Low levels of 1,3-dichloropropane and n-hexane are detected in the method blank. No action was necessary as these compounds are not detected in the associated samples.
- SDG L994604 Analytical batch WG1114084: A low level of 1,2,3-trichlorobenzene is detected in the method blank. No action was necessary as this compound is not detected in the associated sample.

Total Solids by SM 2540 G 2011:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (% solids) were not detected at a significant level in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C:

Three trip blanks were collected and analyzed. The target analytes were not detected in the trip blanks at or above the RDLs.

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicate sample pairs are as follows:

- ESC SDG L993885: Samples MW-161-90 and B-927-30

Field duplicate pairs were submitted and analyzed for VOCs. VOC target analyte results are comparable and within a relative percent difference (RPD) of 30% (for results >5X the RDL) for both sets of field duplicates.

Laboratory Duplicate Analyses

USEPA Method 8260C:

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

Total Solids by SM 2540 G 2011:

Laboratory duplicate sample analyses were performed on client and 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, laboratory control samples, matrix spike samples, trip blanks, and the method blanks are within the laboratory surrogate control limits for all of the analyses with the following exceptions:

- SDG L993391 - Analytical batch WG1110982-1: Surrogate recovery for toluene-d8 was slightly below acceptance criteria and laboratory qualified (J2). **Sample MW-160-50 n-hexane result is estimated (UJ) due to low toluene-d8 surrogate recovery.**
- SDG L993557 - Analytical batch WG1110914: Surrogate recovery for toluene-d8 was slightly above acceptance criteria and laboratory qualified (J1). Surrogate recovery for dibromofluoromethane was slightly below acceptance criteria and laboratory qualified (J2). **Sample B246-70 results are estimated (UJ/J) due to low and high surrogate recoveries.**
- SDG L994604 - Analytical batch WG1114084: Surrogate recovery for toluene-d8 was slightly above acceptance criteria and laboratory qualified (J1). **Detected VOC results for sample MW-161-140 are estimated and qualified (J).**

- SDG L994604 - Analytical batch WG1112686: Surrogate recovery for 4-bromofluorobenzene was slightly above acceptance criteria and laboratory qualified (J1). **No action was taken since the associated sample is a trip blank sample.**

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 with the following discussions and exceptions:

- SDGs L993391 and L993557 - Analytical Batch WG1110914: LCS/LCSD compound recoveries for dichlorodifluoromethane are recovered within control limits but recovered wide with an elevated RPD and are laboratory qualified (J3). No action was taken since recoveries are wide but within criteria.
- SDGs L993391 and L993557 - Analytical Batch WG1110914: LCS compound recovery for n-hexane is recovered above control limit criteria. **For SDG L993391 compound n-hexane was detected in the associated sample (MW-160-110) below the RDL and estimated (J). For SDG L993557 when compound n-hexane is detected in the associated samples it is estimated (J) and no action is taken when n-hexane is not detected.**
- SDGs L993391 and L993557 - Analytical Batch WG1110914: LCS or LCSD compound recoveries for methyl tert-butyl ether and n-propylbenzene are recovered below control limit criteria. **For SDG L993391 compound methyl tert-butyl ether and n-propylbenzene were not detected in the associated sample (MW-160-110) and are estimated (UJ). For SDG L993557 compound methyl tert-butyl ether and n-propylbenzene results for associated samples are estimated (J/UJ). Note that compound methyl tert-butyl ether is already qualified to CCV issues.** Refer to the section on Initial and Continuing Calibration for additional information.
- SDG L993391 - Analytical batch WG1110982: LCS and/or LCSD compound recoveries for n-hexane and 1,3-dichloropropane are recovered above control limit criteria. **No action is taken since these compounds were not detected in the associated samples.**
- SDG L993391- Analytical batch WG1110982: LCS compound recovery for methyl tert-butyl ether is at 68.6% slightly below control limit criteria (70.2-122%). LCSD result is within criteria at 70.6%. **Compound methyl tert-butyl ether in associated samples is estimated (J/UJ) already due to CCV issues.** Refer to the section on Initial and Continuing Calibration for additional information.
- SDG L993557- Analytical Batch WG1110914: LCS or LCSD compound recoveries for methyl tert-butyl ether and n-propylbenzene are recovered below control limit criteria. **Compound methyl tert-butyl ether and n-propylbenzene were not detected in the associated sample (MW-160-110) below the RDL and estimated (UJ).** Note that

compound **methyl tert-butyl ether is already qualified to CCV issues**. Refer to the section on Initial and Continuing Calibration for additional information.

- SDG L993557- Analytical Batch WG1111989: LCS/LCSD compound recoveries for vinyl acetate are recovered within control limits but recovered wide with an elevated RPD and are laboratory qualified (J3). No action was taken since recoveries are wide but within criteria.
- SDG L993885- Analytical Batch WG1111817: LCS/LCSD compound recoveries for 1,3-dichloropropane are recovered above control limit criteria. No action is taken since these compounds were not detected in the associated samples. LCS or LCSD compound recoveries for methyl tert-butyl ether and n-propylbenzene are recovered below control limit criteria. **Compound methyl tert-butyl ether and n-propylbenzene results for associated samples are estimated (J/UJ).**
- SDG L993885- Analytical Batch WG1111989: LCS/LCSD compound recoveries for vinyl acetate are recovered within control limits but recovered wide with an elevated RPD and are laboratory qualified (J3). No action was taken since recoveries are wide but within criteria.
- SDG L994604 – Analytical Batch WG1112686: LCS recovery for 1,1,2-trichlorotrifluoroethane is slightly below criteria. No action is taken in this case since the associated sample is the trip blank.
- SDG L994604 – Analytical Batch WG1114084: LCS recoveries for bromobenzene and chloroform are slightly below criteria. LCS recoveries for 1,3-dichloropropane and 1,2,3-trimethylbenzene are slightly below criteria. No action is taken in this case since the associated sample is the trip blank. **Compound 1,3-dichloropropane and 1,2,3-trimethylbenzene results for associated samples are estimated (J/UJ).**

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 client and non-client samples. In cases where MS/MSDs were not performed refer to LCS/LCSDs for accuracy and precision data. MS/MSD % Rs and RPDs are acceptable with the following exceptions:

- SDG L993391 - Analytical batch WG1100741: Spike was performed on a non-client sample within the analytical batch. Multiple compounds were recovered outside of criteria and are qualified by the laboratory. No action was taken since an LCS/LCSD was analyzed. Refer to LCS/LCSD results for additional accuracy and precision data.
- SDG L993391 Analytical batch WG1110982: Spike was performed on a non-client sample within the analytical batch. Multiple compounds were recovered outside of

criteria and are qualified by the laboratory. No action was taken since an LCS/LCSD was analyzed. Refer to LCS/LCSD results for additional accuracy and precision data.

- SDG L993557- Analytical Batch WG1110914: Spike was performed on sample B246-100. Multiple compounds were recovered outside of control limit criteria due to matrix interference. **All VOC results for sample B246-100 are estimated and qualified (UJ/J) due to poor matrix spike recoveries.**
- SDG L993557- Analytical Batch WG1111989: Two sets of MS/MSDs were reported along with the trip blank sample. Several compounds were outside of criteria but no action was taken since the associated sample is a trip blank and LCS/LCSD results are acceptable.
- SDG L993885- Analytical Batch WG1111817: Spike was performed on a non-client sample within the analytical batch. Multiple compounds were recovered outside of criteria and are qualified by the laboratory. No action was taken since an LCS/LCSD was analyzed. Refer to LCS/LCSD results for additional accuracy and precision data.
- SDG L993885 - Analytical Batch WG1111989: Two sets of MS/MSDs were reported along with the trip blank sample. Several compounds were outside of criteria but no action was taken since the associated sample is a trip blank and LCS results are acceptable.

Other Quality Control Issues

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

Quantitation Limits

The RDLs used for this sample group are 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 the criteria outlined in:

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

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

From: Brian Ford
To: [Shannon E. McKernan](#)
Cc: [Bill Haldeman](#)
Subject: RE: Elevated NWTPH-Gx Sample Request
Date: June 6, 2018 1:18:29 PM
Attachments: [image001.png](#)
[L995641 NWTPHGX.PDF](#)
[L995641 V8260LLC.PDF](#)
[L989149 NWTPHGX.PDF](#)
[L989149 V8260LLC.PDF](#)
[L988839 NWTPHGX.PDF](#)
[L988839 V8260LLC.PDF](#)
[L984615 NWTPHGX.PDF](#)
[L984615 V8260LLC.PDF](#)

Shannon,

Yes, it appears that the CVOCs are the main contribution to the GX detections in these samples. CVOCs are considered part of the gasoline range organics. I have attached the chromatograms.

Thanks,

✉ Brian Ford

Technical Service Representative

ESC Lab Sciences-a subsidiary of Pace Analytical

12065 Lebanon Road | Mt. Juliet, TN 37122

615.773.9772

bford@esclabsciences.com | www.esclabsciences.com

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From: Shannon E. McKernan [mailto:SMcKernan@pesenv.com]
Sent: Wednesday, June 6, 2018 12:37 PM
To: Brian Ford
Cc: Bill Haldeman
Subject: Elevated NWTPH-Gx Sample Request

Hi Brian-

We have several groundwater samples with results from our American Linen project that show elevated NWTPH-Gx results. We would like to confirm if the concentrations are indeed high or if they could be biased high due to elevated CVOC concentrations. We've had several in the past that you confirmed this is likely the case to be. The samples are:

1. L984615
 - a. -04
 - b. -06
 - c. -07
2. L988839

- a. -02 (previously reported high, indicated high CVOC interference with NWTPH-Gx chromatographic profile)
- 2. L989149
 - a. -02
 - b. -03
- 3. L995641
 - a. -06 (previously reported high, indicated high CVOC interference with NWTPH-Gx chromatographic profile)

Thanks for checking these!

Shannon McKernan

Staff Geologist

PES Environmental, Inc.

1215 4th Avenue, Suite 1350

Seattle, WA 98161

Phone: (206) 529-3980, Ext. #111

Fax: (206) 529-3985

Cell: (813) 777-7575

Email: smckernan@pesenv.com

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From: J Compeau
To: ["Brian Ford"](#)
Cc: [Shannon E. McKernan](#)
Subject: RE: Questions on Soils
Date: May 2, 2018 9:18:19 AM
Attachments: [image001.png](#)

Hello Brian,

Yes please.

Thanks,

Jessie Compeau

From: Brian Ford [mailto:BFord@esclabsciences.com]
Sent: Wednesday, May 2, 2018 9:10 AM
To: 'J Compeau'
Subject: RE: Questions on Soils

Jessie,

For question number 2, the internal standard failed low and a V3 qualifier should have been applied for possible high bias data. Let me know if a revised report is needed.

Thanks,

✉ Brian Ford

Technical Service Representative

ESC Lab Sciences-a subsidiary of Pace Analytical

12065 Lebanon Road | Mt. Juliet, TN 37122

615.773.9772

bford@esclabsciences.com | www.esclabsciences.com

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From: Brian Ford
Sent: Tuesday, May 1, 2018 6:39 PM
To: 'J Compeau'
Subject: RE: Questions on Soils

Jessie,

It would be difficult to speculate on how the combination of the internal standard and surrogate failures would impact the sample. We can only evaluate each failure separately:

The V3 qualifier is related to the effect the low internal standard recovery would have on sample

results and doesn't take into account for other factors such as surrogate recoveries. The low internal standard would indicate possible high bias in the sample.

The low surrogate recovery would indicate possible low bias in the sample.

Thanks,

✉ Brian Ford

Technical Service Representative

ESC Lab Sciences-a subsidiary of Pace Analytical

12065 Lebanon Road | Mt. Juliet, TN 37122

615.773.9772

bford@esclabsciences.com | www.esclabsciences.com

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From: J Compeau [mailto:Informa_LLC@comcast.net]

Sent: Tuesday, May 1, 2018 6:22 PM

To: Brian Ford

Subject: RE: Questions on Soils

Hi Brian,

No need to modify the report for question 3.

ON the question #1 response is it possible that no bias need be assigned if surrogate is low due to matrix effect when countered with a low IS % R ...?

Thanks,

Jessie Compeau

From: Brian Ford [mailto:BFord@esclabsciences.com]

Sent: Tuesday, May 1, 2018 3:46 PM

To: 'J Compeau'

Cc: 'Shannon E. McKernan'

Subject: RE: Questions on Soils

Jessie,

I'm still waiting to hear back from the lab on clarification for question 2.

1)Both internal standard and surrogate failed low due to matrix interference. The results for GRO could possibly be biased high due to the low internal standard.

2) waiting for more info from the lab.

3) The J4 is an artifact from high failing o-xylene or m/p-xylene which is used to calculate total

xylene. This J4 can be removed from the report. Let me know if revised reports are needed.

Thanks,

✪ Brian Ford

Technical Service Representative

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12065 Lebanon Road | Mt. Juliet, TN 37122

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From: J Compeau [mailto:Informa_LL@comcast.net]

Sent: Tuesday, May 1, 2018 4:32 PM

To: Brian Ford

Cc: 'Shannon E. McKernan'

Subject: RE: Questions on Soils

Hello Brian,

Any response on questions #1 and 2?

Thanks,

Jessie Compeau

From: Brian Ford [mailto:BFord@esclabsciences.com]

Sent: Monday, April 30, 2018 10:20 AM

To: 'J Compeau'

Subject: RE: Questions on Soils

Jessie,

I'll let you know as soon as I have more info regarding these issues.

Thanks,

✪ Brian Ford

Technical Service Representative

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12065 Lebanon Road | Mt. Juliet, TN 37122

615.773.9772

bford@esclabsciences.com | www.esclabsciences.com

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communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

From: J Compeau [mailto:Informa_LLC@comcast.net]
Sent: Monday, April 30, 2018 11:25 AM
To: Brian Ford
Subject: Questions on Soils

Hello Brian,

A few questions on the soils:

1. SDG L982183 - Analytical Batch WG1092639: Surrogate (a,a,a-trifluorotoluene) **recovery was low and below laboratory criteria** due to matrix effect. ESC footnotes indicate that IS recovery is low but V3 qualifier indicates that the analytical results are biased high. Please confirm that the IS recovery was above criteria.
2. SDG L984082 Analytical Batch WG1096314: ESC footnotes indicate that IS/surrogate (a,a,a-trifluorotoluene) recovery for sample MW-158-30 was low on both runs. Since the surrogate is within what is the situation with the IS and does this comment still apply?
3. SDGsL983357 and L983460 - Analytical batch WG1094842: ESC qualified (J4) the total xylenes result but this appears to be within criteria. No action needed from ESC.

I think this covers it for the soils.

Thanks,

Jessie Compeau
(206) 849-8494

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PES Environmental, Inc.
Engineering & Environmental Services

MEMORANDUM

TO: Project File
FROM: Shannon McKernan
DATE: April 27, 2018
SUBJECT: Relinquished Chains of Custody
PROJECT NO.: 1413.001.05

ESC Lab Sciences (“ESC”) SDGs L982159, L983082, L984034, L984275, L984615, L984988, L985379, L985781, L986193, L988839, and L989149 were submitted to ESC by FedEx between March 30, 2018 and April 26, 2018 by Jeff Dobbins. Review of associated chain of custodies (COCs) show that the relinquished portion was not signed.

Per ESC, it is “not [their] standard practice to generate a non-conformance if the client fails to relinquish the COC.”

Daily Field Reports confirm Jeff Dobbins relinquished chain of custody of the samples on the indicated days at the recorded times. Copies of the Daily Field Reports, field COCs, copies of the signed receipt COCs by ESC, and login reports from ESC associated with the aforementioned SDG reports are attached.

Internal corrective action was implemented by PES to ensure that COCs are signed and dated when relinquishing possession/custody of the sample.

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project Description: **American Linen Supply**

Client Project #
1413.001.05.601

Site/Facility ID #

Collected by (print):
Jeff Dobbins

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

Quote #

Date Results Needed

No. of Cntrs

Billing Information:

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

Email To: boneal@pesenvr.com;
bhaldeaman@pesenvr.com

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

Lab Project #
PESENVSWA-ALP

P.O. #

Analysis / Container / Preservative

NO3,S04,Cl,AIK 250mlHDPE-NOPRES

NWTPHGX 40mlAmb HCl

RSK175LL (EM) 40mlAmb-HCl

TOC 250mlAmb-HCl

Total Fe Mn 6020 250mlHDPE-HNO3

V8260LLC VOCs 40mlAmb-HCl

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 #

Table #

Acctnum: **PESENVSWA**

Template: **T134175**

Prelogin: **P645180**

TSR: **110 - Brian Ford**

PB:

Shipped Via:

Remarks

Sample # (lab only)

Remarks: *Nitrate has a 48 hour hold time*

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

Samples returned via:
UPS FedEx Courier

Tracking #

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

Received by: (Signature)

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

Received by: (Signature)

Relinquished by : (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Temp: °C Bottles Received:

If preservation required by Login: Date/Time

Hold:

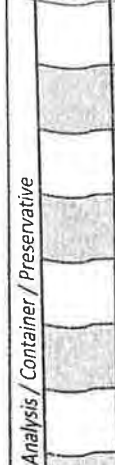
Condition:
NCF / OK

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
VQA Zero Headpace: Y N
Preservation Correct/Checked: Y N

pH Temp Other

Flow

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs
IW-49B-032818	Grab	GW		3/28/18	0951	
IW-46A-032818		GW		3/28/18	1113	
IW-51B-032818		GW		3/28/18	1158	
IW-37A-032818		GW		3/28/18	1496	
IW-45B-032818		GW		3/28/18	1545	
IW-4A-032818		GW		3/28/18	1627	
IW-3B-032818		GW		3/28/18	1880	
IW-1C-032918		GW		3/29/18	1045	
IW-4D-032918		GW		3/29/18		
IW-6D-032918		GW		3/29/18		



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

L #
Table #
Acctnum: PESENVSWA
Template: T134175
Prelogin: P645180
TSR: 110 - Brian Ford
PB:
Shipped Via:
Remarks
Sample # (lab only)

Analysis / Container / Preservative

Pres Chk
Analysis / Container / Preservative

Analysis / Container / Preservative

NO3,S04,Cl,Aik 250mlHDPE-NOPEs
NWTPHGX 40mlamb HCl
RSK175LL (EEM) 40mlamb-HCl
TOC 250mlamb-HCl
Total Fe Mn 6020 250mlHDPE-HNO3
V8260LLC VOCs 40mlamb-HCl

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

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of	Samps
IW-19C-032918		GW		3/29/18	1345		
IW-37B-032918		GW		3/29/18	1430		
IW-9A-032918		GW		3/29/18	1534		
IW-8B-033018		GW		3/30/18	0815		
IW-18A-033018		GW		3/30/18	0900		
IW-17B-033018		GW		3/30/18	0955		
IW-24B-033018		GW		3/30/18	1055		
IW-15C-033018		GW		3/30/18	1215		
IW-20C-033018		GW		3/30/18	400		
IW-901-033018		GW		3/30/18	1120		

Remarks: *Nitrate has a 48 hour hold time*

pH _____ Temp _____
Flow _____ Other _____

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Temp: _____ °C Bottles Received: _____
Date: _____ Time: _____

Received by: (Signature) _____
Received by: (Signature) _____
Received for lab by: (Signature) _____

Relinquished by: (Signature) _____
Relinquished by: (Signature) _____
Relinquished by: (Signature) _____

Condition: NCF / OK

Billing Information:

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

Email To: boneal@pesenv.com;
baldeman@pesenv.com

City/State Collected: Seattle, WA

Lab Project #
PESENVSWA-ALP

P.O. #

Quote #

Rush? (Lab MUST Be Notified)
 Same Day
 Next Day
 Two Day
 Three Day
 Five Day
 5 Day (Rad Only)
 10 Day (Rad Only)

PES Environmental, Inc. - WA
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Client Project #
1413.001.05.601

Site/Facility ID #

Collected by (print):
Jeff Dobbins

Collected by (signature):
[Signature]

Immediately Packed on ice N Y

UPS FedEx Courier
Date: _____ Time: _____
Date: _____ Time: _____
Date: _____ Time: _____

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:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

Project Description: *American Linen Supply*

City/State Collected: *Seattle, WA*

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Site/Facility ID #

P.O. #

Collected by (print): *Jeff Dobbin*

Quote #

Rush? (Lab MUST Be Notified)
 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

Date

Time

Trip Blank

Grab

3/30/18

1

1

1

1

1

1

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1

1

1

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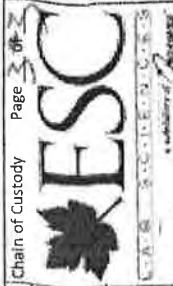
GW

GW

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GW

GW



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

L #
Table #
Acctnum: PESENVSWA
Template: T134175
Prelogin: P645180
TSR: 110 - Brian Ford
PB:
Shipped Via:
Remarks
Sample # (lab only)

Analysis / Container / Preservative
Pres Chk

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

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

pH _____ Temp _____
Flow _____ Other _____

Trip Blank Received: Yes/No
HCL / MeOH
TBR
Temp: _____ °C Bottles Received:
Date: _____ Time: _____

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

Relinquished by: (Signature)
Relinquished by: (Signature)
Relinquished by: (Signature)

Remarks: *Nitrate has a 48 hour hold time*

Samples returned via:
UPS FedEx Courier

Tracking #

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:

Brian O'Neal/Bill Haldeman

Email to:

bhoneal@pesenv.com;
bhaldeman@pesenv.com

Project:

Description: *American Linen Supply*

City/State Collected: *Seattle, WA*

Phone: 206-529-3980

Fax: 206-529-3985

Client Project #

1413.001.05.601

Lab Project #

PESENVSWA-ALP

Collected by (print):

Jeff Dobbins

Quote #

Collected by (signature):

[Signature]

Rush? (Lab MUST Be Notified)

Same Day 1 Day
Next Day 5 Day (Sat Day)
Two Day 10 Day (Rapid Cycle)
Three Day

Sample ID

IW-49B-032818G Grab
IW-46A-032818
IW-51B-022818
IW-37A-032818
IW-45B-032818
IW-4A-032818
IW-3B-032818
IW-1C-032918
IW-4D-032918
IW-6D-032918

Comp/Grab

GW
GW
GW
GW
GW
GW
GW
GW
GW
GW

Date

3/28/18 0951
3/28/18 1113
3/28/18 1158
3/28/18 1220
3/28/18 1456
3/28/18 1545
3/28/18 1627
3/29/18 0841
3/29/18 1045
3/29/18

Depth

Time

Matrix *

Remarks: * Nitrate has a 48 hour hold time*

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

Samples returned via

UPS FedEx Courier

Relinquished by: (Signature)

Date

Time

Relinquished by: (Signature)

Date

Time

Relinquished by: (Signature)

Date

Time



12065 Leelanau Rd
Muskegon, MI 49762
Phone: 616-758-5655
Phone: 800-797-5659
Fax: 616-758-5659



L# *L982159*
D132

Account: **PESENVSWA**
Template: **T134175**
Prelogin: **P645180**
TSR: **110 - Brian Ford**
P#: _____

Shipped Via:

Remarks

Sample # (lab only)	Remarks
01	
02	
03	
04	
05	
06	
07	
08	
09	

Sample Receipt Checklist
 CDC Seal Present/Intact
 CDC Signed/Accurate
 Bottles arrive intact
 Correct bottles used
 Sufficient volume sent
 If applicable
 VQA Zero Mesopace
 Preservation Correct/Checked

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

Analysis / Container / Preservative

Analysis / Container / Preservative	Pres
*N03.S04.C1A1K * 250mlHDPF-NPTES	C1K
NWTPHGX 40mlamb HCl	
RSK175LL (EEM) 40mlamb-HCl	
TOC 250mlamb-HCl	
Total Fe Mn 6020 250mlHDPF-HNO3	
VR260LLC VOCs 40mlamb-HCl	

pH _____ Temp _____

flow _____ Other _____

Tracking # *4269 9210 7162*

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Trip Blank Received: *140 / MeOH*

Temp: *4.10* °C

Date: *3/31/18*

Time: *57*

Time: *8145*

Time: *8145*

Time: *8145*

Time: *8145*

Time: *8145*

Time: *8145*



12006 Jackson Rd
 Mercer Island, WA 98148
 Phone: (206) 758-5858
 Mobile: (800) 787-5859
 Fax: (206) 758-5859

L# **1982159**
 Table #
 Account: **PESENVSWA**
 Template: **T134175**
 Prelogin: **P645180**
 TSR: **110 - Brian Ford**
 PB:
 Shipped Via:
 Comments: Sample # Lab only

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 active: 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: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
VQA Zero Residual: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

Analysis / Container / Preservative

Analysis	Container	Preservative
NWTPHGX 40mlamb HCl		
RSK175LL (EEM) 40mlamb HCl		
TOC 250mlamb-HCl		
Total Fe Mn 6020 250mlHDPF-HNO3		
VB26LLC VOCs 40mlamb-HCl		

pH _____ Temp _____
 Flow _____ Other _____

Trip Blank Received: NO YES
 Temp: **4.1** °C Bottles Received: **57**
 Date: **3/31/18** Time: **8:45**

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

Email To: bhoneal@pesenv.com,
bhalderman@pesenv.com

City/State Collected: **Seattle, WA**
 Lab Project # **PESENVSWA-ALP**
 P.O. #
 Quote #

Rush? (Lub MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad-Only)
 Two Day 10 Day (Rad Only)
 Three Day
 Date Results Needed

Comp/Grab	Matrix *	Depth	Date	Time	No. of Cans
IW-19C-032918	GW	Grab	3/29/18	1345	
IW-37B-032918	GW		3/29/18	1430	
IW-9A-032918	GW		3/29/18	1534	
IW-8B-033018	GW		3/30/18	0815	
IW-16A-033018	GW		3/30/18	0900	
IW-17B-033018	GW		3/30/18	0951	
IW-24B-033018	GW		3/30/18	1055	
IW-15C-033018	GW		3/30/18	1215	
IW-20C-033018	GW		3/30/18	1400	
MW-901-033018	GW		3/30/18	1120	

Remarks: *Nitrate has a 48 hour hold time*

Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Biosassy
 WW - Wastewater
 DW - Drinking Water
 OT - Other

Samples returned via:
 UPS _____ FedEx _____ Courier _____
 Date: _____ Time: _____
 Date: _____ Time: _____
 Date: _____ Time: _____

PES Environmental, Inc. - WA
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Halderman

Project Description:
American Linen Supply
 Client Project # **1413.001.05.601**
 Site/Facility ID #
 Collected by (print): **Jeff Dobbins**
 Collected by (signature):

Immediately Packed on Ice: N Y

Received by: (Signature) _____
 Received by: (Signature) _____
 Received for Lab by: (Signature) **861**

Hold: _____
 Condition: **NCF / OK**



13065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Fax: 615-758-5859

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: **Brian O'Neal/Bill Haldeaman**
Email To: bonoal@pesenv.com, bhaldeaman@pesenv.com

Project Description: **American Linen Supply**
Client Project #: **1413.001.05.601**
City/State Collected: **Seattle, WA**
Lab Project #: **PESENVSWA-A1P**

Collected by (print): **Jeff Dobbas**
Collected by (signature): *[Signature]*
Packed on ice: **N** **Y**

Site/Facility ID #: _____
P.O. #: _____
Quote #: _____
Date Results Needed: _____

Rush? (Lab MUST Be Notified)
 Same Day _____ Five Day _____
 Next Day _____ 5 Day (EOD Only) _____
 Two Day _____ 10 Day (EOD Only) _____
 Three Day _____

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Enter
Trip Blank	Grab	GW		3/30/18		
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				

Remarks: *Nitrate has a 48 hour hold time*

Matrix:	SS - Soil	AIR - Air	F - Filter
GW - Groundwater			
WW - Waste Water			
DW - Drinking Water			
OT - Other			

Analysis / Container / Preservative	Pres CRK
NW1PHGX 40mlamb HCl	
NO3,S04,Cl,Aik 250mlHDPE-NOPres	
RSK175LL (EEM) 40mlamb-HCl	
TOC 250mlamb-HCl	
Total Fe Mn 6020 250mlHDPE-HNO3	
V8260LLC VOCs 40mlamb-HCl	

Shipped Via: _____
 Accnum: **PESENVSWA**
 Template: **T134175**
 Prelogin: **P645180**
 TSR: **110 - Brian Ford**
 PB: _____
 Shipped Via: _____
 Remarks: _____
 Article # (lab only): **-2D**

Sample Receipts 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
 IE Applicable: Y N
 VOA Zero HeadSpace: Y N
 Preservation required by Login: Date/Time: _____
 Hold: _____
 Condition: **NCF** **IPK**



ESC Lab Sciences
Login Confirmation Report
 March 31, 2018 - 16:11

Account: PESENVSWA - PES Environmental, Inc.- WA

Login # L982159

Template # T134175

Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Phone: (206) 529-3980 **FAX:** (206) 529-3985

Email: boneal@pesenv.com; bhaldean@pesenv.com

Login Comments: RSK175LL
 V8260LLC
 6020 Metals

Receive Date: 03/31/2018

Entered: 03/31/2018

Lab Project Number: PESENVSWA-ALP

Client Project # 1413.001.05.601

Project Description:

Collected By: Jeff Dobbins

Reg. State: WA

TSR: Brian Ford

By: Katie Ingram

Report MDL: Y

HDC: N

PO #

PO Req: N

Terms: 30

Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L982159-01		IW-49B-032818	03/28/2018 09:51	Site:	Est. Due Date*: 04/09/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
Misc	DISPOSAL	Sample Disposal Charge				\$ 5.00
Misc	ENERGY	Energy Surcharge				\$ 15.00
Misc	HARDCOPY	Hardcopy Report Charge				\$ 0.00
Misc	SHIPPING	Inbound Transport Charge				\$ 0.00
L982159-02		IW-46A-032818	03/28/2018 11:13	Site:	Est. Due Date*: 04/09/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
L982159-03		IW-51B-032818	03/28/2018 11:58	Site:	Est. Due Date*: 04/09/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
L982159-04		IW-37A-032818	03/28/2018 13:20	Site:	Est. Due Date*: 04/09/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
L982159-05		IW-45B-032818	03/28/2018 14:56	Site:	Est. Due Date*: 04/09/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
L982159-06		IW-4A-032818	03/28/2018 15:45	Site:	Est. Due Date*: 04/09/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
L982159-07		IW-3B-032818	03/28/2018 16:27	Site:	Est. Due Date*: 04/09/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00

L982159-08	IW-1C-032918	03/29/2018 08:41	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-09	IW-4D-032918	03/29/2018 10:45	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-10	IW-19C-032918	03/29/2018 13:45	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-11	IW-37B-032918	03/29/2018 14:30	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-12	IW-9A-032918	03/29/2018 15:34	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-13	IW-8B-033018	03/30/2018 08:15	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-14	IW-18A-033018	03/30/2018 09:00	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-15	IW-17B-033018	03/30/2018 09:51	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-16	IW-24B-033018	03/30/2018 10:55	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-17	IW-15C-033018	03/30/2018 12:15	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-18	IW-20C-033018	03/30/2018 14:00	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00
L982159-19	MW-901-033018	03/30/2018 11:20	Site:	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	\$ 70.00

L982159-20	TRIP BLANK	03/30/2018 00:00	Est. Due Date*: 04/09/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	
V8260LLC		UPPB	
		8260C	\$ 70.00
		Information Only - Not An Invoice - Do Not Pay! Total:	\$ 1,420.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.

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:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

Project

Description: *American Linen Supply*

City/State Collected: *Seattle, WA*

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Site/Facility ID #

P.O. #

Collected by (print):
Jeff Debbas

Quote #

Collected by (signature):
[Signature]

Date Results Needed

Packed on Ice N Y

No. of Cntrs

Sample ID

Date

Comp/Grab

Time

Matrix *

Depth

GW

4/2/18 0836

GW

4/2/18 0920

GW

4/2/18 1028

GW

4/2/18 1108

GW

4/2/18 1149

GW

4/2/18 1242

GW

4/2/18 1420

GW

4/2/18 1540

GW

4/3/18 0856

GW

4/3/18 1016

Remarks: * Nitrate has a 48 hour hold time*

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

Samples returned via:
UPS FedEx Courier

Relinquished by: (Signature)

Date:

Received by: (Signature)

Trip Blank Received: Yes / No
HCl / MeOH
TBR

Relinquished by: (Signature)

Date:

Received by: (Signature)

Temp: °C Bottles Received:

Relinquished by: (Signature)

Date:

Received for lab by: (Signature)

Date: Time:

Analysis / Container / Preservative

Analysis / Container / Preservative	Pres Chk
NO ₃ ,SO ₄ ,Cl,Alk 250mlHDPE-NoPres	
NWTPHG 40mlAmb HCl	X
RSK175LL (EEM) 40mlAmb-HCl	
TOC 250mlAmb-HCl	
Total Fe Mn 6020 250mlHDPE-HNO3	X
V8260LL VOCs 40mlAmb-HCl	X

Chain of Custody Page 1 of 1

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



L #

Table #

Acctnum: PESENVSWA

Template: T134175

Prelogin: P645197

TSR: 110 - Brian Ford

PB: 322-1808

Shipped Via: FedEX Ground

Remarks Sample # (lab only)

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

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-736-5858
 Phone: 800-367-5859
 Fax: 615-736-5859

LA **L983092**
B217
 Account: **PESENVSWA**
 Template: **T134175**
 Program: **P645197**
 YSR: **110 - Brian Ford**
 PR: **322-18CS**
 Shipped Via: **FedEX Ground**

Analysis / Container / Preservative

Procs
 CMA

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

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

PES Environmental, Inc. - WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeaman

Project:
American Linen Supply

Description:
Seattle, WA

Client Project #
PESENVSWA-ALP

Site/Facility ID #

Quote #

Rush? (Lab MUST be Notified)
 Same Day
 Next Day
 Two Day
 Three Day

Collected by (print):
Jeff Dobbins

Collected by (signature):

Immediately Packed on Ice: N Y

Front Day
 5 Day (Paid Only)
 10 Day (Paid Only)

Date Results Needed

No. of CMA's

Time

Date

Depth

Matrix *

Comp/Grab

Sample ID

Remarks: * Nitrate has a 48 hour hold time*

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of CMA's	Analysis / Container / Preservative
IW-6B-040218	Grab	GW		4/2/18	0836	3	VR260LLC VOCs 40mlamb-HCl
IW-7A-040218		GW		4/2/18	0920	3	Total Fe Mn 6020 250mlHDPF-HNO3
IW-3B-040218		GW		4/2/18	1028	3	TCC 250mlamb-HCl
IW-2A-040218		GW		4/2/18	1108	3	RSK175LL (EEM) 40mlamb-HCl
IW-21B-040218		GW		4/2/18	1149	3	NWTPHGX 40mlamb HCl
IW-48A-040218		GW		4/2/18	1242	3	*NO3,SO4,Cl,AIK* 250mlHDPF-NOPres
IW-9C-040218		GW		4/2/18	1420	3	
R-MWZ-040218		GW		4/2/18	1540	3	
IW-5D-040318		GW		4/3/18	0856	3	
IW-1D-040318		GW		4/3/18	1016	3	

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

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Relinquished by: (Signature)

Date:

Temp: _____
 pH: _____
 Flow: _____
 Other: _____

Sample Receipts: Checklists

COC Seal Present/Forfeit: Y N

COC Signed/Aspirate: Y N

Bottles Arrive Intact: Y N

Correct Bottling Method: Y N

Sufficient Volume Sent: Y N

II Applicable: Y N

VQA Zero Headspace: Y N

Preservation Correct/Checked: Y N

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Tracking # **4269 9210 7156**

Received by (Signature)

Time

Received by (Signature)

Time

Received for lab by (Signature)

Time

Temp: **0316** °C

Date: **4/4/18** Time: **8:45**

Temp: _____ °C

Date: _____ Time: _____

Temp: _____ °C

Date: _____ Time: _____

Temp: _____ °C

Date: _____ Time: _____

Temp: _____ °C

Date: _____ Time: _____

Temp: _____ °C

Date: _____ Time: _____



12065 Lebanon Rd
 Millport, TN 37122
 Phone: 615-758-0558
 Phone: 800-767-8859
 Fax: 615-758-5859

LA # 1983882
 Table #
 Account: PESENVSWA
 Template: T134175
 Prelogin: P645197
 T5R: 110 - Brian Ford
 PB: 3-22-8CS
 Shipped Via: FedEx Ground
 Remarks: (Sample # (lab only))
 -1
 -12

Analysis / Container / Preservative

• NO3, SO4, Cl, Alk • 250mlHDPE-NPRes	NWTPHGX 40mlAmb HCl	RSK175LL (EEM) 40mlAmb-HCl	TOC 250mlAmb-HCl	Total Fe Mn 6020 250mlHDPE-HNO3	VR260LLC VOCs 40mlAmb-HCl
---------------------------------------	---------------------	----------------------------	------------------	---------------------------------	---------------------------

Billing Information:
PES Environmental, Inc. - WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161
 Attn: Accounts Payable
 1215 Fourth Ave., Ste. 1350
 Seattle, WA 98161
 Email To: boneal@pesenv.com;
 bhaldeman@pesenv.com

Report to:
 Brian O'Meal/Bill Haldeman

Project:
 Description: American Linen Supply
 Client Project # 1413.001.05.601
 Phone: 206-529-3980
 Fax: 206-529-3985

Collected by (print): Jeff Dobkins
 Collected by (signature): [Signature]

Site/Facility ID #
 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

Matrix *
 Comp/Grab
 Depth
 Date
 Time

Sample ID
 Iw-60-040318 Grab
 Trip Blanks

No. of Cnts
 3
 1

Matrix:	SS - Soil	AIR - Air	F - Filter	GW - Groundwater	B - Bioassay	WW - Waste Water	DW - Drinking Water	OT - Other
Remarks: * Nitrate has a 48 hour hold time*				GW				
				GW				
				GW				
				GW				
				GW				
				GW				
				GW				
				GW				
				GW				
				GW				
				GW				
				GW				

Sample Receipt Checklist

COC Seal Present/Intact: Y N

COC Signed/Accessed: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

If Applicable

WCA Zero Headpace: Y N

Preservation Correct/Checked: Y N

pH _____ Temp _____

Flow _____ Other _____

Tracking # 4269 9210 7151

Received by (Signature) [Signature]

Received by (Signature) [Signature]

Received for lab by (Signature) [Signature]

Temp: 0.5°C

Date: 4/1/8 8:45

Time: 36

Condition: NCF / OK



ESC Lab Sciences
 Login Confirmation Report
 April 4, 2018 - 18:29

Account: PESENVSWA - PES Environmental, Inc. - WA

Login # L983082
Template # T134175
Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

 Phone: (206) 529-3980 FAX: (206) 529-3985
 Email: boneal@pesenv.com; bhaldeman@pesenv.com
Login Comments: RSK175LL
 V8260LLC
 6020 Metals

Receive Date: 04/04/2018
Entered: 04/04/2018
Lab Project Number: PESENVSWA-ALP
Client Project # 1413.001.05.601
Project Description:
 Collected By: Jeff Dobbins
 Reg. State: WA

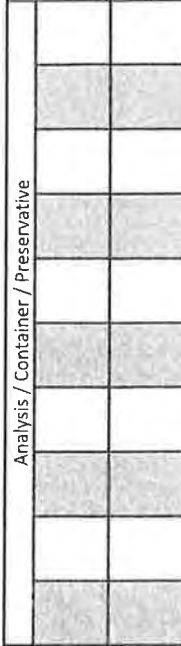
TSR: Brian Ford
By: Troy Dunlap
Report MDL: Y
HDC: N
PO #
PO Req: N
Terms: 30
Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L983082-01		IW-6B-040218	04/02/2018 08:36	Site:	Est. Due Date*: 04/11/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	GW	Volatiles (Low Level)				\$ 70.00
	Misc	Sample Disposal Charge				\$ 5.00
	Misc	Energy Surcharge				\$ 15.00
	Misc	Hardcopy Report Charge				\$ 0.00
	Misc	Inbound Transport Charge				\$ 0.00
L983082-02		IW-7A-040218	04/02/2018 09:20	Site:	Est. Due Date*: 04/11/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	GW	Volatiles (Low Level)				\$ 70.00
L983082-03		IW-33B-040218	04/02/2018 10:28	Site:	Est. Due Date*: 04/11/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	GW	Volatiles (Low Level)				\$ 70.00
L983082-04		IW-22A-040218	04/02/2018 11:08	Site:	Est. Due Date*: 04/11/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	GW	Volatiles (Low Level)				\$ 70.00
L983082-05		IW-21B-040218	04/02/2018 11:49	Site:	Est. Due Date*: 04/11/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	GW	Volatiles (Low Level)				\$ 70.00
L983082-06		IW-48A-040218	04/02/2018 12:42	Site:	Est. Due Date*: 04/11/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	GW	Volatiles (Low Level)				\$ 70.00
L983082-07		IW-9C-040218	04/02/2018 14:20	Site:	Est. Due Date*: 04/11/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	GW	Volatiles (Low Level)				\$ 70.00

Sample ID	Sample Description	Sample Date	Sample Time	Sample Description	Site	Est. Due Date	Amount
L983082-08	R-MW2-040218	04/02/2018 15:40		American Linen Supply		04/11/2018 - R5	
GW	NWTPH Gasoline Range Organics				UPPB	NWTPHGX	\$ 30.00
GW	Volatiles (Low Level)				UPPB	8260C	\$ 70.00
L983082-09	IW-3D-040318	04/03/2018 08:56		American Linen Supply		04/11/2018 - R5	
GW	Volatiles (Low Level)				UPPB	8260C	\$ 70.00
L983082-10	IW-1D-040318	04/03/2018 10:16		American Linen Supply		04/11/2018 - R5	
GW	Volatiles (Low Level)				UPPB	8260C	\$ 70.00
L983082-11	IW-6D-040318	04/03/2018 12:55		American Linen Supply		04/11/2018 - R5	
GW	Volatiles (Low Level)				UPPB	8260C	\$ 70.00
L983082-12	TRIP BLANK	04/03/2018 00:00		American Linen Supply		04/11/2018 - R5	
GW	NWTPH Gasoline Range Organics				UPPB	NWTPHGX	\$ 30.00
GW	Volatiles (Low Level)				UPPB	8260C	\$ 70.00

Information Only - Not An Invoice - Do Not Pay! Total: \$ 920.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.



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

L #
 Table #
 Acctnum: PESENVSWA
 Template: T134175
 Preligin: P645197
 TSR: 110 - Brian Ford
 PB: 082-1808

Shipped Via: FedEX Ground
 Remarks
 Sample # (lab only)

Billing Information:
PES Environmental, Inc. - WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

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

Email To: boneal@pesenv.com;
 bhaldeaman@pesenv.com

Report to:
Brian O'Neal/Bill Halderman

Project Description: *American Linen Supply*
 City/State Collected: *Seattle, WA*

Client Project #
1413-001.05.601

Lab Project #
PESENVSWA-ALP

Site/Facility ID #
P.O. #

Quote #
Date Results Needed

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative				Remarks										
							Temp	Flow	Other	PH											
<i>TW-9D-040418 Grab</i>		GW		<i>4/4/18</i>	<i>0835</i>	<i>3</i>	X														
<i>TW-8D-040418</i>		GW		<i>4/4/18</i>	<i>1005</i>	<i>3</i>	X														
<i>ID-8C-040418</i>		GW		<i>4/4/18</i>	<i>1106</i>	<i>3</i>	X														
<i>TW-45A-040418</i>		GW		<i>4/4/18</i>	<i>1326</i>	<i>3</i>	X														
<i>P-HW3-040418</i>		GW		<i>4/4/18</i>	<i>1615</i>	<i>6</i>	X														
<i>T15-040518</i>		GW		<i>4/5/18</i>	<i>0827</i>	<i>6</i>	X														
<i>F13-040518</i>		GW		<i>4/5/18</i>	<i>0922</i>	<i>6</i>	X														
<i>T5-040518</i>		GW		<i>4/5/18</i>	<i>1010</i>	<i>6</i>	X														
<i>4029-040518</i>		GW		<i>4/5/18</i>	<i>1418</i>	<i>6</i>	X														
<i>4021-040518</i>		GW		<i>4/5/18</i>	<i>1571</i>	<i>6</i>	X														

Remarks: *Nitrate has a 48 hour hold time*

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

Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature) _____ Date: _____ Time: _____

Relinquished by: (Signature) _____ Date: _____ Time: _____

Relinquished by: (Signature) _____ Date: _____ Time: _____

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

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

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

L# _____
 Table # _____
 Acctnum: PESENVSWA
 Template: T134175
 Prelogin: P645197
 TSR: 110 - Brian Ford
 PB: 3-22-1803

Shipped Via: FedEX Ground
 Remarks _____
 Sample # (lab only) _____

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

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

Analysis / Container / Preservative	Pres Chk
NO ₃ ,SO ₄ ,Cl,AIK 250mlHDPENOPres	
NWTPHGX 40mlAmb HCl	
RSK175LL (EEM) 40mlAmb-HCl	
TOC 250mlAmb-HCl	
Total Fe Mh 6020 250mlHDPEN-HNO3	
V8260LLC VOCs 40mlAmb-HCl	

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

Email To: boneal@pesenv.com;
 bhaldeman@pesenv.com

City/State Collected: Seattle, WA
 Lab Project # PESENVSWA-ALP
 P.O. # _____

Quote # _____
 Date Results Needed _____

Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW119-040514 Grab	GW		4/5/18	1629	3
K8-4514	GW		4/5/18	1211	6
MW15-4-5-16	GW		4/5/18	1115	6
MW108-040618	GW		4/6/18	0915	3
MW109-040618	GW		4/6/18	1012	3
MW103-040618	GW		4/6/18	0957	3
MW126-040618	GW		4/6/18	1123	3
MW101-040618	GW		4/6/18	1157	3
MW102-040618	GW		4/6/18	1210	3

Remarks: *Nitrate has a 48 hour hold time*
 pH _____ Temp _____
 Flow _____ Other _____

Trip Blank Received: Yes / No
 HCL / MeOH TBR
 Temp: _____ °C Bottles Received:
 Date: _____ Time: _____

PES Environmental, Inc.- WA
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Client Project # 1413.001.05.601
 Site/Facility ID # _____

Rush? (Lab MUST Be Notified)
 Same Day _____ Five Day _____
 Next Day _____ 5 Day (Rad Only) _____
 Two Day _____ 10 Day (Rad Only) _____
 Three Day _____

Collected by (print): Jeff Dalbins
 Collected by (signature): [Signature]
 Immediately Packed on Ice N Y X

Samples returned via:
 UPS _____ FedEx _____ Courier _____

Relinquished by: (Signature) _____ Date: _____ Time: _____
 Relinquished by: (Signature) _____ Date: _____ Time: _____
 Relinquished by: (Signature) _____ Date: _____ Time: _____

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:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldean@pesenv.com

Project

Description: *American Linen Supply*
City/State Collected: *Seattle WA*

Lab Project #
PESENVSWA-ALP

Client Project #
1413.001.05.601

Collected by (print): *Jeff Debbas*

P.O. #

Collected by (signature): *[Signature]*

Quote #

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

Date Results Needed

Sample ID

Comp/Grab

Matrix *

Date

Time

No. of Cntrs

<i>SCL-MU105-040618 Grab</i>	GW	<i>4/6/18</i>	<i>1221</i>	<i>3</i>
<i>MU122-040618</i>	GW	<i>4/6/18</i>	<i>1250</i>	<i>3</i>
<i>P-MU12-040618</i>	GW	<i>4/6/18</i>	<i>1446</i>	<i>6</i>
<i>MU125-040618</i>	GW	<i>4/6/18</i>	<i>1509</i>	<i>6</i>
<i>TAP BLANK</i>	GW			<i>1</i>
	GW			
	GW			
	GW			
	GW			
	GW			
	GW			
	GW			

Remarks: *Nitrate has a 48 hour hold time*

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

Samples returned via:
UPS ___ FedEx ___ Courier ___

Relinquished by : (Signature)

Date:

Time:

Relinquished by : (Signature)

Date:

Time:

Relinquished by : (Signature)

Date:

Time:

Analysis / Container / Preservative

<i>*NO3,S04,Cl,Alk* 250mlHDFE-NOPres</i>										
<i>NWTPHG X 40mlAmb HCl</i>										
<i>RSK175LL (EEM) 40mlAmb-HCl</i>										
<i>TOC 250mlAmb-HCl</i>										
<i>Total Fe Mn 6020 250mlHDFE-HNO3</i>										
<i>V8260LLC VOCs 40mlAmb-HCl</i>										

Chain of Custody



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

L #

Table #

Acctnum: **PESENVSWA**

Template: **T134175**

Prelogin: **P645197**

TSR: **110 - Brian Ford**

PB: **3-22-1808**

Shipped Via: **FedEx Ground**

Remarks

Sample # (lab only)

Sample Receipt Checklist
COC Seal Present/Intact: ___ Y ___ N
COC Signed/Accurats: ___ 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

If preservation required by Login: Date: Time

Hold: Condition: NCF / OK

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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

Report to:
Brian O'Neal/Bill Haldeaman

Email To: boneal@pesenv.com
bhaldeaman@pesenv.com

Project Description: **American Linen Supply**
City/State Collected: **Seattle, WA**

Client Project # **1413.001.05.601**
Lab Project # **PESENVSWA-ALP**

Site/Facility ID # _____
P.O. # _____
Quote # _____
Date Results Needed _____

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Lab Only)
 Two Day 10 Day (Lab Only)
 Three Day

Collected by (Print): **Jeff Dobbins**
Collected by (Signature): *[Signature]*
Immediately Packed on Ice: Y N

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
IW-9D-040418	Grab	GW		4/4/18	0835	3
IW-8D-040418		GW		4/4/18	1005	3
IW-8C-040418		GW		4/4/18	1106	3
IW-45A-040418		GW		4/4/18	1326	3
R-MW3-040418		GW		4/4/18	1615	6
J15-040518		GW		4/5/18	0827	6
F13-040518		GW		4/5/18	0922	6
J5-040518		GW		4/5/18	1010	6
MW-9-040518		GW		4/5/18	1418	6
MW121-040518		GW		4/5/18	1521	6

Remarks: Nitrate has a 48 hour hold time*

Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature)	Date	Time

Analysis / Container / Preservative	Pres Chk
NO3,SO4,Cl,Alk 250mlHDPE-NOres	
NWTFHG 40mlamb HCl	
RSK175LL (EM) 40mlamb-HCl	
TOC 250mlamb-HCl	
Total Fe Mn 6020 250mlHDPE-HNO3	
V8260LLC VOCs 40mlamb-HCl	

Temp _____
 pH _____
 Flow _____
 Other _____
 Trip Blank Received: **4196 3255 8846**
 HGU/ Micro TBS
 Temp: **2.6** °C
 Botting Received: **100 + 17B**
 Date: **4/7/18** Time: **0845**

Chain of Custody Page 1 of 1



LAB SCIENCE
 12985 Robinson Rd
 Mount Juliet, TN 37122
 Phone: 615-758-9858
 Phone: 800-767-6659
 Fax: 615-758-5859

L# **984034**
 Tax **F138**
 Account: **PESENVSWA**
 Template: **T134175**
 Prelogin: **P645197**
 TSR: **110 - Brian Ford**
 PB: **322-1808**

Shipped Via: **FedEx Ground**

Remarks	Sample # (Lab only)
	-01
	-02
	-03
	-04
	-05
	-06
	-07
	-08
	-09
	-10

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

Completion: **100%**

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeaman

Project Description:
American Linen Supply

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

Client Project #
1413.001.05.601

Site/Facility ID #

Rush? (Lab MUST Be Notified)
 Same Day
 Next Day
 Two Day
 Three Day
 Five Day
 5 Day (Rad Only)
 10 Day (Rad Only)

City/State Collected: **Seattle, WA**
 Lab Project # **PESENVSWA-ALP**
 P.O. #
 Quote #
 Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntes
MW119-040618	Grab	GW		4/5/18	1629	3
K8-4514		GW		4/5/18	1211	6
MW15-4-5-18		GW		4/5/18	1115	6
MW108-040618		GW		4/6/18	0915	3
MW109-040618		GW		4/6/18	1012	3
MW103-040618		GW		4/6/18	1117	3
MW126-040618		GW		4/6/18	0937	3
MW101-040618		GW		4/6/18	1231	3
MW111-040618		GW		4/6/18	1157	3
MW902-040618		GW		4/6/18	1210	3

Remarks: Nitrate has a 48 hour hold time

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

Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:

Tracking # **4196 3255 8846**
 Received by: (Signature)
 Received by: (Signature)
 Received for lab by: (Signature)
 Temp: **25w** °C Bottles Received: **100 + 1 TB**
 Date: **4/7/18** Time: **0845**

Analyses / Containers / Preservative

Analysis	Containers	Preservative
*NO3,SO4,Cl,Aik * 250mlHDPE-NOPres		
NWTPHG 40mlamb HCl	X	
RSK175LL (EEM) 40mlamb-HCl		
TOC 250mlamb-HCl		
Total Fe Mn 6020 250mlHDPE-HNO3		
V8260LLC VOCs 40mlamb-HCl	X	

Temp: _____ °C Flow: _____ Other: _____
 pH: _____ Temp: _____
 Trip Blank Received: **Yes/No**
 Temp: _____ °C Bottles Received: **100 + 1 TB**
 Date: **4/7/18** Time: **0845**

Chain of Custody Page **23** of **23**



LAB SCIENTIFICS
 a subsidiary of 

12005 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-3858
 Fax: 615-758-5850



Table # **F138**

Account: **PESENVSWA**
 Template: **T134175**
 Prelogin: **P605197**
 TSR: **110 - Brian Ford**
 PB: **0-22-1805**

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	71
	72
	73
	74
	75
	76
	77
	78
	79
	80

Sample Receipt Checklist

VOC Seal Present/Accurate
 VOC Signed/Accurate
 Bottles arrive intact
 Correct bottles used
 Sufficient volume sent
 21 Applicable
 VOA zero headspace
 Preservation Correct/Checked

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

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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

Report To:
Brian O'Neal/Bill Haldeman

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

Project Description: **American Linen Supply**

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

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

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Collected by (Print): **Jeff Debbins**

Site/Facility ID #

Collected by (Signature): *[Signature]*

Quote #

Date Results Needed

Immediately

Rush? (Lab MUST Be Notified)
Same Day _____ Five Day _____
Next Day _____ 3 Day (Lead Only) _____
Two Day _____ 10 Day (Lead Only) _____
Three Day _____

Packed on Ice: N Y

Comp/Grab

Matrix *

Depth

Date

Time

No. of Cntrs

Sample ID	Matrix *	Depth	Date	Time	No. of Cntrs
SCL-MW105-040618	GW	Grab	4/6/18	1221	3
MW122-040618	GW		4/6/18	1250	3
R-MW06-040618	GW		4/6/18	1448	6
MW125-040618	GW		4/6/18	1509	6
TRIP BLANK	GW				1
	GW				
	GW				
	GW				
	GW				
	GW				
	GW				
	GW				

Remarks: *Nitrate has a 48 hour hold time*

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

Samples returned via:
_ UPS FedEx Courier

Relinquished by: (Signature)
Date: _____ Time: _____

Relinquished by: (Signature)
Date: _____ Time: _____

Relinquished by: (Signature)
Date: _____ Time: _____

Relinquished by: (Signature)
Date: _____ Time: _____

Relinquished by: (Signature)
Date: _____ Time: _____

Relinquished by: (Signature)
Date: _____ Time: _____

Relinquished by: (Signature)
Date: _____ Time: _____

Relinquished by: (Signature)
Date: _____ Time: _____

Relinquished by: (Signature)
Date: _____ Time: _____

Analysis / Container / Preservative

Analysis / Container / Preservative	Pres Chk
• NO3, SO4, Cl, Alk • 250ml HDPE - NOPS	
NWTFHGX 40mlamb HCl	
RSK175L (EEM) 40mlamb-HCl	
TOC 250mlamb-HCl	
Total Fe Mn 6020 250mlHDPE-HNO3	
V8260LLC VOCs 40mlamb-HCl	

Chain of Custody Page 3 of 3



LAB SCIENCES
A Division of

17065 Lebrun Rd
Mount Laurel, NJ 07122
Phone: 609-748-3354
Phone: 800-767-5859
Fax: 609-758-5859

L# 984634
Table # F138
Account: PESENVSWA
Template: T134175
Prelogin: P645197
TSR: 110 - Brian Ford
PB: 3-22-18CS

Shipped Via: FedEX Ground

Remarks	Sample # (lab only)
	21
	22
	23
	24
	25

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

if preservation required by Login: Date/Time
Hold: _____
Condition: NCF / OK

Temp: 21.6 °C
Date: 4/7/18
Time: 0845

Tracking # 4196 3255 8846
Received by: (Signature)
Received by: (Signature)
Received for lab by (Signature)
[Signature]

Temp: _____
Date: _____
Time: _____

Temp: _____
Date: _____
Time: _____

Temp: _____
Date: _____
Time: _____

**ESC Lab Sciences
Non-Conformance Form**

Login #: 984034	Client: PESENVSWA	Date: 04/07/18	Evaluated by: Matthew Lockhart
------------------------	--------------------------	-----------------------	---------------------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification		
Parameter(s) past holding time	Login Clarification Needed		If Broken Container:
Improper temperature	Chain of custody is incomplete	X	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 / Cou
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:
X 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:Received 1 broken container for each id MW111-040618 and MW109-040618.

Client informed by:	Call	Email	Voice Mail	Date:	Time:
TSR Initials:bjf	Client Contact:				

Login Instructions:

Proceed with remaining sample containers.

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.



ESC Lab Sciences
 Login Confirmation Report
 April 9, 2018 - 09:38

Account: PESENVSWA - PES Environmental, Inc. - WA

Login # **L984034**
 Template # **T134175**
 Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161
 Phone: (206) 529-3980 FAX: (206) 529-3985
 Email: boncal@pesenv.com; bhaldeman@pesenv.com
 Login Comments: **RSK175LL**
V8260LLC
6020 Metals

Receive Date: 04/07/2018
 Entered: 04/07/2018
 Lab Project Number: PESENVSWA-ALP
 Client Project # 1413.001.05.601
 Project Description:
 Collected By: Jeff Dobbins
 Reg. State: WA

TSR: Brian Ford
 By: Matthew Lockhart
 Report MDL: Y
 HDC: N
 PO #
 PO Req: N
 Terms: 30
 Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L984034-01		IW-9D-040418	04/04/2018 08:35	Site:	Est. Due Date*: 04/16/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	V8260LLC	Volatiles (Low Level)				\$ 15.00
	Misc ENERGY	Energy Surcharge				\$ 0.00
	Misc HARDCOPY	Hardcopy Report Charge				\$ 12.00
	Misc MTLPREP	Metals Prep Fee per Set				
L984034-02		IW-8D-040418	04/04/2018 10:05	Site:	Est. Due Date*: 04/16/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	V8260LLC	Volatiles (Low Level)				\$ 5.00
	Misc DISPOSAL	Sample Disposal Charge				\$ 0.00
	Misc SHIPPING	Inbound Transport Charge				
L984034-03		IW-8C-040418	04/04/2018 11:06	Site:	Est. Due Date*: 04/16/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	V8260LLC	Volatiles (Low Level)				
L984034-04		IW-45A-040418	04/04/2018 13:26	Site:	Est. Due Date*: 04/16/2018 - R5	
			Sample Description: American Linen Supply	UPPB	8260C	\$ 70.00
	V8260LLC	Volatiles (Low Level)				
L984034-05		R-MW3-040418	04/04/2018 16:15	Site:	Est. Due Date*: 04/16/2018 - R5	
			Sample Description: American Linen Supply	UPPB	NWTPHGX	\$ 30.00
	NWTPHGX	NWTPH Gasoline Range Organics				\$ 70.00
	V8260LLC	Volatiles (Low Level)				
L984034-06		J15-040518	04/05/2018 08:27	Site:	Est. Due Date*: 04/16/2018 - R5	
			Sample Description: American Linen Supply	UPPB	NWTPHGX	\$ 30.00
	NWTPHGX	NWTPH Gasoline Range Organics				\$ 70.00
	V8260LLC	Volatiles (Low Level)				
L984034-07		F13-040518	04/05/2018 09:22	Site:	Est. Due Date*: 04/16/2018 - R5	
			Sample Description: American Linen Supply	UPPB	NWTPHGX	\$ 30.00
	NWTPHGX	NWTPH Gasoline Range Organics				\$ 70.00
	V8260LLC	Volatiles (Low Level)				

L984034-08	J5-040518	04/05/2018 10:10	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	NWTPHGX	NWTPH Gasoline Range Organics	UPPB	NWTPHGX	\$ 30.00
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-09	MW-9-040518	04/05/2018 14:18	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	NWTPHGX	NWTPH Gasoline Range Organics	UPPB	NWTPHGX	\$ 30.00
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-10	MW121-040518	04/05/2018 15:21	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	NWTPHGX	NWTPH Gasoline Range Organics	UPPB	NWTPHGX	\$ 30.00
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-11	MW119-040518	04/05/2018 16:29	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-12	K8-4518	04/05/2018 12:11	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	NWTPHGX	NWTPH Gasoline Range Organics	UPPB	NWTPHGX	\$ 30.00
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-13	MW15-4-5+18	04/05/2018 11:15	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	NWTPHGX	NWTPH Gasoline Range Organics	UPPB	NWTPHGX	\$ 30.00
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-14	MW108-040618	04/06/2018 09:15	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-15	MW109-040618	04/06/2018 10:12	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-16	MW103-040618	04/06/2018 11:17	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-17	MW126-040618	04/06/2018 09:37	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00
L984034-18	MW101-040618	04/06/2018 11:23	Sample Description: American Linen Supply	Site:	Est. Due Date*: 04/16/2018 - R5
GW	V8260LLC	Volatiles (Low Level)	UPPB	8260C	\$ 70.00

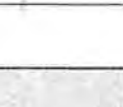
L984034-19	MW111-040618	04/06/2018 11:57	Site:	Est. Due Date*: 04/16/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	
V8260LLC				\$ 70.00
L984034-20	MW902-040618	04/06/2018 12:10	Site:	Est. Due Date*: 04/16/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	
V8260LLC				\$ 70.00
L984034-21	SCL-MW105-040618	04/06/2018 12:21	Site:	Est. Due Date*: 04/16/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	
V8260LLC				\$ 70.00
L984034-22	MW122-040618	04/06/2018 12:50	Site:	Est. Due Date*: 04/16/2018 - R5
GW	Volatiles (Low Level)	Sample Description: American Linen Supply	UPPB	
V8260LLC				\$ 70.00
L984034-23	R-MW6-040618	04/06/2018 14:48	Site:	Est. Due Date*: 04/16/2018 - R5
GW	NWTPH Gasoline Range Organics	Sample Description: American Linen Supply	UPPB	
GW	Volatiles (Low Level)		UPPB	\$ 30.00
V8260LLC				\$ 70.00
L984034-24	MW125-040618	04/06/2018 15:09	Site:	Est. Due Date*: 04/16/2018 - R5
GW	NWTPH Gasoline Range Organics	Sample Description: American Linen Supply	UPPB	
GW	Volatiles (Low Level)		UPPB	\$ 30.00
V8260LLC				\$ 70.00
L984034-25	TRIP BLANK	04/06/2018 00:00	Site:	Est. Due Date*: 04/16/2018 - R5
GW	NWTPH Gasoline Range Organics	Sample Description: American Linen Supply	UPPB	
GW	Volatiles (Low Level)	Sample Comments: run both analysis from 1 vial	UPPB	\$ 30.00
V8260LLC				\$ 70.00
				\$ 2,112.00

Information Only - Not An Invoice - Do Not Pay! Total:

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.



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



L #
 Table #
 Acctnum: PESENVSWA
 Template: T134175
 Prelogin: P645197
 TSR: 110 - Brian Ford
 PB: 800-808-808

Shipped Via: FedEX Ground
 Remarks
 Sample # (lab only)

Analysis / Container / Preservative

Analysis / Container / Preservative	Pres Chk
NO ₃ ,SO ₄ ,Cl,Alk 250mlHDPE-NOPres	
NWTPHGx 40mlAmb HCl	
RSK175LL (EEM) 40mlAmb-HCl	
TOC 250mlAmb-HCl	
Total Fe Mh 6020 250mlHDPE-HNO3	
V8260LLC VOCs 40mlAmb-HCl	

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

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

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

Email To: boneal@pesenv.com;
 bhaldean@pesenv.com

City/State Collected: Seattle, WA
 Lab Project #
PESENVSWA-ALP

P.O. #
 Quote #
 Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW128-040918	Grab	GW		4/9/18	1046	3
MW-214-040918		GW		4/9/18	1147	3
SMW-3-040918		GW		4/9/18	1230	3
MW110-040918		GW		4/9/18	1418	3
MW107-040918		GW		4/9/18	0935	11
MW120-040918		GW		4/9/18	1149	11
MW104-040918		GW		4/9/18	1346	11
TW-28B-040918		GW		4/9/18	1553	3
TRIP BLANK		GW				1

Remarks: *Nitrate has a 48 hour hold time*

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

Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature) Date: _____
 Relinquished by: (Signature) Date: _____
 Relinquished by: (Signature) Date: _____

Received by: (Signature) Date: _____
 Received by: (Signature) Date: _____
 Received for lab by: (Signature) Date: _____

Tracking #
 Trip Blank Received: Yes / No
 HCL / MeoH
 TBR
 Temp: °C Bottles Received:
 Date: Time:

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

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

Report to:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

Project Description: **American Lichen Supply**

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

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Collected by (print):
Jeff Dobbins

P.O. #

Collected by (signature):
[Signature]

Quote #

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

Date Results Needed

No of Entries

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Entries
MW128-040918	Grab	GW		4/9/18	1046	3
MW-214-040918		GW		4/9/18	1147	3
SMW-3-040918		GW		4/9/18	1230	3
MW110-040918		GW		4/9/18	1418	3
MW107-040918		GW		4/9/18	0935	11
MW120-040918		GW		4/9/18	1149	11
MW104-040918		GW		4/9/18	1346	11
TW-28B-040918		GW		4/9/18	1553	3
TRIP BLANK		GW				1

Remarks: * Nitrate has a 48 hour hold time *

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

Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature)
Date:

Relinquished by: (Signature)
Date:

Relinquished by: (Signature)
Date:

Relinquished by: (Signature)
Date:

Tracking # **426992166102**

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Temp: **53.3** °C Bottles Received: **48**

Date: **4/10/18** Time: **0845**

Date: **4/10/18** Time: **0845**

Date: **4/10/18** Time: **0845**

Date: **4/10/18** Time: **0845**

Date: **4/10/18** Time: **0845**

Date: **4/10/18** Time: **0845**

Date: **4/10/18** Time: **0845**

Date: **4/10/18** Time: **0845**

Chain of Custody Page 1 of 1



12005 Lebonon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5858
Fax: 615-758-5859

L# **L974275**

Tab **C070**

Accnum: **PESENVSWA**
Template: **T134175**
Prelogin: **P645197**
TSR: **110 - Brian Ford**
PB: **3-22-18CS**

Shipped Via: **FedEX Ground**

Remarks: Sample # (Lab only)

Analysis / Container / Preservative	Pres Chk
WVTPHG 40mlamb HCl	
RSK175L (EEM) 40mlamb-HCl	
TOC 250mlamb-HCl	
Total Fe Mn 6020 250mlHDPF-HNO3	
V8260LLC VOCs 40mlamb-HCl	

Sample Receipt Checklist

COC Seal Present/Intact:

COC Signed/Accurate:

Bottles arrive intact:

Correct bottles used:

Sufficient volume sent:

If Applicable

VQA Zero/Headspace:

Preservation Contact/Checked:

if preservation required by Login, Date/Time

Hold:

Condition: **NCF**



ESC Lab Sciences
Login Confirmation Report
 April 10, 2018 - 13:07

Account: PESENVSWA - PES Environmental, Inc.- WA

Login # L984275
Template # T134175
Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161
 Phone: (206) 529-3980 FAX: (206) 529-3985
 Email: boncal@pesenv.com; bhaldean@pesenv.com
Login Comments: RSK175LL
 V8260LLC
 6020 Metals

Receive Date: 04/10/2018
Entered: 04/10/2018
Lab Project Number: PESENVSWA-ALP
Client Project # 1413.001.05.601
Project Description:
 Collected By: Jeff Dobbins
 Reg. State: WA

TSR: Brian Ford
By: Katie Ingram
Report MDL: Y
HDC: N
PO #
PO Req: N
Terms: 30
Quote #

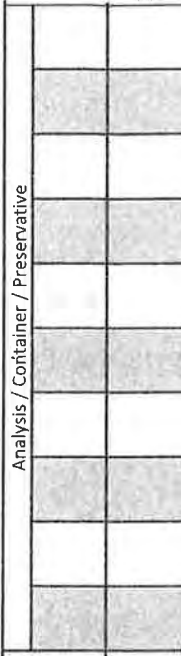
Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L984275-01		MW128-040918	04/09/2018 10:46 Sample Description: American Linen Supply	Site: UPPB	Est. Due Date*: 04/17/2018 - R5 8260C	\$ 70.00
GW	V8260LLC	Volatiles (Low Level)				
L984275-02		MW-214-040918	04/09/2018 11:47 Sample Description: American Linen Supply	Site: UPPB	Est. Due Date*: 04/17/2018 - R5 8260C	\$ 70.00
GW	V8260LLC	Volatiles (Low Level)				
L984275-03		SMW-3-040918	04/09/2018 12:30 Sample Description: American Linen Supply	Site: UPPB	Est. Due Date*: 04/17/2018 - R5 8260C	\$ 70.00
GW	V8260LLC	Volatiles (Low Level)				
L984275-04		MW110-040918	04/09/2018 14:18 Sample Description: American Linen Supply	Site: UPPB	Est. Due Date*: 04/17/2018 - R5 8260C	\$ 70.00
GW	V8260LLC	Volatiles (Low Level)				

Sample ID	Sample Description	Sample Date	Sample Description	Sample Date	Site	Est. Due Date	Est. Due Date
L984275-05	MW107-040918	04/09/2018 09:35	American Linen Supply	04/17/2018 - R5			
	Alkalinity				UPPB	2320 B-2011	\$ 15.00
GW	ALK				UPPB	9056A	\$ 15.00
GW	CHLORIDE				UPPB	6020A	\$ 15.00
GW	FEG				UPPB	6020A	\$ 15.00
GW	MNG				UPPB	9056A	\$ 12.00
GW	NITRATE				UPPB	NWTPHGX	\$ 30.00
GW	NWTPHGX				UPPB	3810/RSK175	\$ 75.00
GW	RSK175LL				UPPB	9056A	\$ 12.00
GW	SULFATE				UPPB	9060A	\$ 25.00
GW	TOC				UPPB	8260C	\$ 70.00
GW	V8260LLC						\$ 5.00
Misc	DISPOSAL						\$ 15.00
Misc	ENERGY						\$ 0.00
Misc	HARDCOPY						\$ 12.00
Misc	MTLPREP						\$ 0.00
Misc	SHIPPING						\$ 12.00
							\$ 0.00
L984275-06	MW120-040918	04/09/2018 11:49	American Linen Supply	04/17/2018 - R5			
	Alkalinity				UPPB	2320 B-2011	\$ 15.00
GW	ALK				UPPB	9056A	\$ 15.00
GW	CHLORIDE				UPPB	6020A	\$ 15.00
GW	FEG				UPPB	6020A	\$ 15.00
GW	MNG				UPPB	9056A	\$ 12.00
GW	NITRATE				UPPB	NWTPHGX	\$ 30.00
GW	NWTPHGX				UPPB	3810/RSK175	\$ 75.00
GW	RSK175LL				UPPB	9056A	\$ 12.00
GW	SULFATE				UPPB	9060A	\$ 25.00
GW	TOC				UPPB	8260C	\$ 70.00
GW	V8260LLC						\$ 0.00
L984275-07	MW104-040918	04/09/2018 13:46	American Linen Supply	04/17/2018 - R5			
	Alkalinity				UPPB	2320 B-2011	\$ 15.00
GW	ALK				UPPB	9056A	\$ 15.00
GW	CHLORIDE				UPPB	6020A	\$ 15.00
GW	FEG				UPPB	6020A	\$ 15.00
GW	MNG				UPPB	9056A	\$ 12.00
GW	NITRATE				UPPB	NWTPHGX	\$ 30.00
GW	NWTPHGX				UPPB	3810/RSK175	\$ 75.00
GW	RSK175LL				UPPB	9056A	\$ 12.00
GW	SULFATE				UPPB	9060A	\$ 25.00
GW	TOC				UPPB	8260C	\$ 70.00
GW	V8260LLC						\$ 0.00
L984275-08	IW-28B-040918	04/09/2018 15:53	American Linen Supply	04/17/2018 - R5			
	Alkalinity				UPPB	2320 B-2011	\$ 15.00
GW	ALK				UPPB	9056A	\$ 15.00
GW	CHLORIDE				UPPB	6020A	\$ 15.00
GW	FEG				UPPB	6020A	\$ 15.00
GW	MNG				UPPB	9056A	\$ 12.00
GW	NITRATE				UPPB	NWTPHGX	\$ 30.00
GW	NWTPHGX				UPPB	3810/RSK175	\$ 75.00
GW	RSK175LL				UPPB	9056A	\$ 12.00
GW	SULFATE				UPPB	9060A	\$ 25.00
GW	TOC				UPPB	8260C	\$ 70.00
GW	V8260LLC						\$ 0.00
L984275-09	TRIP BLANK	04/09/2018 00:00	American Linen Supply	04/17/2018 - R5			
	Volatiles (Low Level)				UPPB	8260C	\$ 70.00
GW	V8260LLC						\$ 0.00

Information Only - Not An Invoice - Do Not Pay! Total:

\$ 1,304.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.



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

PES Environmental, Inc.- WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman
 Email To: boneal@pesenv.com;
 bhaldeman@pesenv.com

Client Project #
1413.001.05.601
 Lab Project #
PESENVSWA-ALP

City/State Collected: **Seattle, WA**
 P.O. #
PESENVSWA-ALP

Quote #
 Date Results Needed
 No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time
TW-42A-041016	GW	GW		4/10/18	1103
TW-41A-041018	GW	GW		4/10/18	1238
TW-47B-041016	GW	GW		4/10/18	1347
MW-150-041016	GW	GW		4/10/18	1355
MW-151-041016	GW	GW		4/10/18	1019
MW-152-041016	GW	GW		4/10/18	0858
MW-149-041016	GW	GW		4/10/18	1222
TRIP BLANK	GW	GW			
	GW	GW			
	GW	GW			

Remarks: *Nitrate has a 48 hour hold time*

Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature) Date: Time: Tracking #
 Received by: (Signature)

Relinquished by: (Signature) Date: Time: Tracking #
 Received by: (Signature)

Relinquished by: (Signature) Date: Time: Tracking #
 Received for lab by: (Signature)

Analysis / Container / Preservative	Pres Chk
NO3,SO4,Cl,Alk 250mlHDPE-NOPres	
NWTPHGx 40mlAmb HCl	
RSK175LL (EEM) 40mlAmb-HCl	
TOC 250mlAmb-HCl	
Total Fe Mn 6020 250mlHDPE-HNO3	
V8260LLC VOCs 40mlAmb-HCl	

Acctnum: PESENVSWA
 Template: T134175
 Prelogin: P645197
 TSR: 110 - Brian Ford
 PB: 3001805
 Shipped Via: FedEx Ground
 Remarks: Sample # (lab only)

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

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

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project Description: *American Linens Supply*

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

Collected by (print): *Jeff Dobbins*
Collected by (signature): *[Signature]*

Immediately Packed on ice N Y

Sample ID

IW-42A-041018 Grab
IW-41A-041018
IW-47B-041018
MW-150-041018
MW-151-041018
MW-152-041018
MW-149-041018
TRIP BLANK

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

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

City/State Collected: *Seattle, WA*
Lab Project #: *PESENVSWA-ALP*

P.O. #

Quote #

Rush? (Lab MUST be Notified)

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

No. of Cans

10

Time

4/10/18 1102
4/10/18 1238
4/10/18 1347
4/10/18 1355
4/10/18 1017
4/10/18 0856
4/10/18 1222

Date

Depth

Matrix *

Comp/Grab

GW

GW

GW

GW

GW

GW

GW

GW

GW

GW

GW

GW

GW

Remarks: * Nitrate has a 48 hour hold time *

Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Biossay
WW - Waste Water
DW - Drinking Water
OT - Other

Samples returned via:
UPS FedEx Courier

Date: _____ Time: _____

Date: _____ Time: _____

Date: _____ Time: _____

Received by: (Signature) _____

Received by: (Signature) _____

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

Tracking # 4196 3259 1959

Trip Blank Received: GAD / No TBR

Temp: *42* °C bottles Received: *53*

Date: *4/11/18* Time: *8:45*

Analysis / Container / Preservative

LC2

LC2

RSK175L (EEM) 40mlamb-HCl

NW1PHGX 40mlamb HCl

NO3,S04,Cl,Alk 250mlHDPE-NOpres

Total Fe Mn 6020 250mlHDPE-HNO3

V8260LLC VOCs 40mlamb-HCl

Chain of Custody Page 1 of 1



A.B. S. I. E. N. C. E.



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-8858
Phone: 800-767-5859
Fax: 615-758-8859

LW 198465

Table #

Account: PESENVSWA

Template: T134175

Program: P645197

TSR: 110 - Brian Ford

PB: 322-18CS

Shipped Via: FedEx Ground

Remarks

Sample # (lab only)

-01

-02

-03

-04

-05

-06

-07

-08

Sample Receipt Checklist
 CCC Seal Present/Intact
 DOC Signed/Approved
 Bottles active intact
 Correct bottle used
 Sufficient volume sent
 If Acclimation
 VOA Zero Headspace
 Preservation Correct/Checked

if preservation required by Login: Date/Time

Hold: _____ Condition: NCF / PK



ESC Lab Sciences
 Login Confirmation Report
 April 11, 2018 - 11:26

Account: PESENVSWA - PES Environmental, Inc. - WA

Login # **L984615**
 Template #
 Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161
 Phone: (206) 529-3980 FAX: (206) 529-3985
 Email: boneal@pesenv.com; bhaldean@pesenv.com
 Login Comments: **RSK175LL**
V8260LLC
6020 Metals

Receive Date: 04/11/2018
 Entered: 04/11/2018
 Lab Project Number: PESENVSWA-ALP
 Client Project # 1413.001.05.601
 Project Description:
 Collected By: Jeff Dobbins
 Reg. State: WA

TSR: Brian Ford
 By: Troy Dunlap
 Report MDL: Y
 HDC: N
 PO #
 PO Req: N
 Terms: 30
 Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L984615-01		IW-42A-041018	04/10/2018 11:02	Site:	8260C	Est. Due Date*: 04/18/2018 - R5
			Sample Description: American Linen Supply	UPPB		
	V8260LLC	Volatiles (Low Level)			8260C	\$ 70.00
	DISPOSAL	Sample Disposal Charge				\$ 5.00
	ENERGY	Energy Surcharge				\$ 15.00
	HARDCOPY	Hardcopy Report Charge				\$ 0.00
	SHIPPING	Inbound Transport Charge				\$ 0.00
L984615-02		IW-41A-041018	04/10/2018 12:38	Site:	8260C	Est. Due Date*: 04/18/2018 - R5
			Sample Description: American Linen Supply	UPPB		
	V8260LLC	Volatiles (Low Level)			8260C	\$ 70.00
L984615-03		IW-47B-041018	04/10/2018 13:47	Site:	8260C	Est. Due Date*: 04/18/2018 - R5
			Sample Description: American Linen Supply	UPPB		
	V8260LLC	Volatiles (Low Level)			8260C	\$ 70.00
L984615-04		MW-150-041018	04/10/2018 13:55	Site:	2320 B-2011	Est. Due Date*: 04/18/2018 - R5
			Sample Description: American Linen Supply	UPPB		
	ALK	Alkalinity			9056A	\$ 15.00
	CHLORIDE	Chloride by IC			6020A	\$ 15.00
	FEG	Iron by ICPMS			6020A	\$ 15.00
	MNG	Manganese by ICPMS			9056A	\$ 12.00
	NITRATE	Nitrate by IC			NWTPHGX	\$ 30.00
	NWTPHGX	NWTPH Gasoline Range Organics			3810/RSK175	\$ 75.00
	RSK175LL	RSK -175 Low Level			9056A	\$ 12.00
	SULFATE	Sulfate by IC			9060A	\$ 25.00
	TOC	TOC (Total Organic Carbon)			8260C	\$ 70.00
	V8260LLC	Volatiles (Low Level)				\$ 12.00
	MTLPREP	Metals Prep Fee per Set				

Sample ID	Sample Description	Sample Date	Sample Description	Site	Est. Due Date	Est. Due Date
L984615-05	MW-151-041018	04/10/2018 10:17	American Linen Supply		04/18/2018 - R5	
	Alkalinity			UPPB	2320 B-2011	\$ 15.00
	Chloride by IC			UPPB	9056A	\$ 15.00
	Iron by ICPMS			UPPB	6020A	\$ 15.00
	Manganese by ICPMS			UPPB	6020A	\$ 15.00
	Nitrate by IC			UPPB	9056A	\$ 12.00
	NWTPH Gasoline Range Organics			UPPB	NWTPHGX	\$ 30.00
	RSK -175 Low Level			UPPB	3810/RSK175	\$ 75.00
	Sulfate by IC			UPPB	9056A	\$ 12.00
	TOC (Total Organic Carbon)			UPPB	9060A	\$ 25.00
	Volatiles (Low Level)			UPPB	8260C	\$ 70.00
L984615-06	MW-152-041018	04/10/2018 08:56	American Linen Supply		04/18/2018 - R5	
	Alkalinity			UPPB	2320 B-2011	\$ 15.00
	Chloride by IC			UPPB	9056A	\$ 15.00
	Iron by ICPMS			UPPB	6020A	\$ 15.00
	Manganese by ICPMS			UPPB	6020A	\$ 15.00
	Nitrate by IC			UPPB	9056A	\$ 12.00
	NWTPH Gasoline Range Organics			UPPB	NWTPHGX	\$ 30.00
	RSK -175 Low Level			UPPB	3810/RSK175	\$ 75.00
	Sulfate by IC			UPPB	9056A	\$ 12.00
	TOC (Total Organic Carbon)			UPPB	9060A	\$ 25.00
	Volatiles (Low Level)			UPPB	8260C	\$ 70.00
L984615-07	MW-149-041018	04/10/2018 12:22	American Linen Supply		04/18/2018 - R5	
	Alkalinity			UPPB	2320 B-2011	\$ 15.00
	Chloride by IC			UPPB	9056A	\$ 15.00
	Iron by ICPMS			UPPB	6020A	\$ 15.00
	Manganese by ICPMS			UPPB	6020A	\$ 15.00
	Nitrate by IC			UPPB	9056A	\$ 12.00
	NWTPH Gasoline Range Organics			UPPB	NWTPHGX	\$ 30.00
	RSK -175 Low Level			UPPB	3810/RSK175	\$ 75.00
	Sulfate by IC			UPPB	9056A	\$ 12.00
	TOC (Total Organic Carbon)			UPPB	9060A	\$ 25.00
	Volatiles (Low Level)			UPPB	8260C	\$ 70.00
L984615-08	TRIP BLANK	04/10/2018 00:00	American Linen Supply		04/18/2018 - R5	
	Volatiles (Low Level)			UPPB	8260C	\$ 70.00

Information Only - Not An Invoice - Do Not Pay! Total: \$ 1,448.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.

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:

Brian O'Neal/Bill Haldeman

Email To:

bhoneal@pesenv.com;
bhaldeman@pesenv.com

Project

Description: *Amurichon Linn*

Client Project #

1413.001.05.601

City/State Collected:

Seattle, WA

Lab Project #

PESENVSWA-ALP

Collected by (print):

Tell Dalbho

P.O. #

1413.001.05.601

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

RB-S-04118
MW-16-04118
MW-15-04118
MW-13-04118
MW-05-04118
MW-03-04118
P-MW-05-04118
MW-138-04118
~~REP-138-04118~~

Comp/Grab

Matrix *

Depth

Date

Time

No. of Cntrs

Temp

Flow

Other

PH

Temp

Flow

Other

PH

Temp

Flow

Other

PH

Temp

Flow

Other

Remarks: *Nitrate has a 48 hour hold time*

*** Matrix:**

SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other

Relinquished by : (Signature)

Date: Time:

Relinquished by : (Signature)

Date: Time:

Relinquished by : (Signature)

Date: Time:

Samples returned via:

UPS FedEx Courier

Tracking #

Received by: (Signature)

Time:

Received by: (Signature)

Time:

Received for lab by: (Signature)

Time:

Trip Blank Received: Yes / No

HCL / MeOH TBR


Temp: °C

Bottles Received:

Date:

Time:

Chain of Custody Page 1 of 1



L.A.B. S.C.I.E.N.C.E.S
a subsidiary of *Knowledge*

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

L#

Table #

Acctnum: PESENVSWA
Template: T134175
Prelogin: P645197
TSR: 110 - Brian Ford
PB: 3-22-18

Shipped Via: FedEX Ground

Remarks

Sample # (lab only)

Analysis / Container / Preservative

Pres Chk

Analysis / Container / Preservative	Pres Chk	No. of Cntrs	Temp	Flow	Other	PH	Temp	Flow	Other	PH	Temp	Flow	Other
NO3,S04,Cl,Alk 250mlHDPPE-NOPres													
NWTFHGX 40mlAmb HCl													
RSK175LL (EEM) 40mlAmb-HCl													
TOC 250mlAmb-HCl													
Total Fe Mn 6020 250mlHDPPE-HNO3													
V8260LLC VOCs 40mlAmb-HCl													

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
VOA Zero Headspace:	Y	N
Preservation Correct/Checked:	Y	N

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK



LAB SCIENTIFICS
 12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-9850
 Phone: 800-787-5859
 Fax: 615-758-5852

L# 1984988
 Ta C143

Account: PESENVSWA
 Template: T134175
 Prelogin: P645197
 TSR: 110 - Brian Ford
 PB: 3-22-18CS
 Shipped Via: FedEx Ground

Sample #	Remarks	Sample # (lab only)
-01		
-92		
-93		
-94		
-95		
-96		
-97		
-98		

Sample Receipt Checklist
 CDC Seal Present/Intact: NP
 CDC Signed/Accurate:
 Bottles active/Intact:
 Correct bottle/label used:
 Sufficient volume sent:
 If Applicable
 VOA Zero Headspace:
 Preservation Correct/Checked:

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

Analysis / Container / Preservative

Analysis	Container	Preservative
NO3,SO4,Cl,Alk 250mlHDPE-NOPres	NWTFPHGX 40mlAmb HCl	X
RSK175LL (EEM) 40mlAmb-HCl	X	X
TOC 250mlAmb-HCl	X	X
Total Fe Mn 6020 250mlHDPE-HNO3	X	X
V8260LLC VOCs 40mlAmb-HCl	X	X

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

Email To: boncal@pesenv.com;
 bhaldeaman@pesenv.com

City/State: SEATTLE, WA
 Lab Project #
 PESENVSWA-ALP

P.O. #
 Quote #
 Date Results Needed

No. of	Ents
10	
3	
3	
3	
11	
11	
6	
11	
11	

PES Environmental, Inc. - WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Report To:
 Brian O'Neal/Bill Haldeaman

Project Description: American Lumen
 Client Project #
 1413.001.05.601
 Site/Facility ID #
 1413.001.05.601
 Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time
BB-8-041118	GRAB	GW		4/11/18	0945
MW-116-041118		GW		4/11/18	1221
MW-115-041118		GW		4/11/18	1151
MW-113-041118		GW		4/11/18	1218
MW-105-041118		GW		4/11/18	1035
MW-903-041118		GW		4/11/18	1051
R-MW-5-041118		GW		4/11/18	1347
MW-138-041118		GW		4/11/18	1355
TRIP BLANK		GW			
		GW			

Remarks: *Nitrate has a 48 hour hold time*
 Samples returned via:
 UPS
 FedEx
 Courier

Relinquished by: (Signature)
 Date:
 Relinquished by: (Signature)
 Date:
 Relinquished by: (Signature)
 Date:

pH _____ Temp _____
 Fovw _____ Other _____

Trip Blank Received: Yes (No) HCL/WHOH TBE
 Temp: 59 °C
 Date: 4/12/18
 Bottles Received: 59
 Time: 0845

Tracking # 4276 0144 3736
 Received by: (Signature)
 Received by: (Signature)
 Received by: (Signature)



ESC Lab Sciences
Login Confirmation Report
 April 16, 2018 - 16:51

Account: PESENVSWA - PES Environmental, Inc.- WA

Login # L984988

Template # T134175

Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Phone: (206) 529-3980 **FAX:** (206) 529-3985

Email: boneal@pesenv.com; bhalldeman@pesenv.com

Login Comments: RSK175LL
 V8260LLC
 6020 Metals

Receive Date: 04/12/2018

Entered: 04/12/2018

Lab Project Number: PESENVSWA-ALP

Client Project # 1413.001.05.601

Project Description:

Collected By: Jeff Dobbins

Reg. State: WA

TSR: Brian Ford

By: Troy Dunlap

Report MDL: Y

HDC: N

PO #

PO Req: N

Terms: 30

Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L984988-01		BB-8-041118	04/11/2018 09:45	Site: 1413.001.05.601	Est. Due Date*: 04/19/2018 - R5	
GW	ALK	Alkalinity	Sample Description: American Linen	UPPB	2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC		UPPB	9056A	\$ 15.00
GW	FEG	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	MNG	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	NITRATE	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00
Misc	DISPOSAL	Sample Disposal Charge				\$ 5.00
Misc	ENERGY	Energy Surcharge				\$ 15.00
Misc	HARDCOPY	Hardcopy Report Charge				\$ 0.00
Misc	MTLPREP	Metals Prep Fee per Set				\$ 12.00
Misc	SHIPPING	Inbound Transport Charge				\$ 0.00
L984988-02		MW-116-041118	04/11/2018 12:21	Site: 1413.001.05.601	Est. Due Date*: 04/19/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen	UPPB	8260C	\$ 70.00
L984988-03		MW-115-041118	04/11/2018 11:51	Site: 1413.001.05.601	Est. Due Date*: 04/19/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen	UPPB	8260C	\$ 70.00
L984988-04		MW113-041118	04/11/2018 12:18	Site: 1413.001.05.601	Est. Due Date*: 04/19/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen	UPPB	8260C	\$ 70.00

Sample ID	Sample Description	Sample Date	Site	Est. Due Date	Amount
L984988-05	MW105-041118	04/11/2018 10:35	Site: 1413.001.05.601	Est. Due Date*: 04/19/2018 - R5	
	Sample Description: American Linen				
GW	Alkalinity		UPPB	2320 B-2011	\$ 15.00
GW	Chloride by IC		UPPB	9056A	\$ 15.00
GW	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	Volatiles (Low Level)		UPPB	8260C	\$ 70.00
L984988-06	MW903-041118	04/11/2018 10:51	Site: 1413.001.05.601	Est. Due Date*: 04/19/2018 - R5	
	Sample Description: American Linen				
GW	Alkalinity		UPPB	2320 B-2011	\$ 15.00
GW	Chloride by IC		UPPB	9056A	\$ 15.00
GW	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	Volatiles (Low Level)		UPPB	8260C	\$ 70.00
L984988-07	R-MW5-041118	04/11/2018 13:47	Site: 1413.001.05.601	Est. Due Date*: 04/19/2018 - R5	
	Sample Description: American Linen				
GW	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	Volatiles (Low Level)		UPPB	8260C	\$ 70.00
L984988-08	MW138-041118	04/11/2018 13:55	Site: 1413.001.05.601	Est. Due Date*: 04/19/2018 - R5	
	Sample Description: American Linen				
GW	Alkalinity		UPPB	2320 B-2011	\$ 15.00
GW	Chloride by IC		UPPB	9056A	\$ 15.00
GW	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	Volatiles (Low Level)		UPPB	8260C	\$ 70.00

Information Only - Not An Invoice - Do Not Pay! Total: \$ 1,478.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.

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

L # _____
 Table # _____
 Acctnum: PESENVSWA
 Template: T134175
 Prelogin: P645197
 T5R: 110 - Brian Ford
 PB: 588-1808
 Shipped Via: FedEX Ground
 Remarks _____ Sample # (lab only) _____

Analysis / Container / Preservative	Pres Chk
NO ₃ ,SO ₄ ,Cl,AIK 250mlHDPE-NOPres	
NWTFHGX 40mlAmb HCl	
RSK175LL (EEM) 40mlAmb-HCl	
TOC 250mlAmb-HCl	
Total Fe Mn 6020 250mlHDPE-HNO3	
V8260LLC VOCs 40mlAmb-HCl	

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

Email To: boneal@pesenv.com;
 bhaldeman@pesenv.com

City/State Collected: Seattle, WA
 Lab Project #
PESENVSWA-ALP
 P.O. # _____

Quote # _____
 Date Results Needed _____
 No. of Cntrs _____

PES Environmental, Inc.- WA
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project Description: American Linen
 Client Project #
1413-001.05.601
 Site/Facility ID # _____

Collected by (print): Self Robbins
 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
 Immediately Packed on Ice Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time
MW-137-041218	Grab	GW		4/12/18	1520
MW-117-041218		GW		4/12/18	1046
MW-140-041218		GW		4/12/18	1304
MW-141-041218		GW		4/12/18	0918
TRIP BLANK		GW			
		GW			
		GW			
		GW			
		GW			
		GW			

Remarks: *Nitrate has a 48 hour hold time*
 Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature) _____ Date: _____ Time: _____
 Relinquished by: (Signature) _____ Date: _____ Time: _____
 Relinquished by: (Signature) _____ Date: _____ Time: _____

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

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

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Halderman

Project Description: **American Linen**
Client Project # **1413.001.05.601**
Phone: **206-529-3980**
Fax: **206-529-3985**

Collected by (print): **Jeff Dobbins**
Collected by (Signature):

Immediately Packed on Ice: **N** **Y**

Billing Information:

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

Email To: boneal@pesenv.com,
bhalderman@pesenv.com

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

Lab Project # **PESENVSWA-ALP**

P.O. #

Quote #

Date Results Needed

Rush? (Lab MUST Be Notified)
 Same Day
 Next Day
 Two Day
 Three Day
 Five Day
 5 Day (Rad Only)
 10 Day (Rad Only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Filters
MW-137-041214	Grab	GW		4/12/18	1520	11
MW-112-041218		GW		4/12/18	1046	11
MW-140-041218		GW		4/12/18	1304	11
MW-141-041218		GW		4/12/18	0918	11
TRIP BLANK		GW				1
		GW				
		GW				
		GW				
		GW				
		GW				

Remarks: *Nitrate has a 48 hour hold time*

Samples returned via:
 UPS
 FedEx
 Courier

Relinquished by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:

Analysis / Container / Preservative	Pres Etk
NWTFHG 40mlamb HCl	
NO3,SO4,Cl,Alk 250mlHDPE-NOPres	
RSK175LL (EM) 40mlamb-HCl	
TCC 250mlamb-HCl	
Total Fe Mn 6020 250mlHDPE-HNO3	
V8260LLC VOCs 40mlamb-HCl	

Chain of Custody Page 1 of 1

13055 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5838
Phone: 800-757-5859
Fax: 615-758-5859

L# **985374**
Tabl **C178**

Account: **PESENVSWA**
 Template: **T134175**
 Prelogin: **P645197**
 TSR: **110 - Brian Ford**
 PB: **3-22-18CS**
 Shipped Via: **FedEX Ground**

Remarks	Sample a (lab only)
	01
	02
	03
	04
	05

SAMPLE RECEIPT CHECKLIST

500 Seal Prepared/Initiated: NP

500 Signoff/Accurate: NP

Bottles Air-ize Intact: NP

Correct Bottling used: NP

Sufficient volume sent: NP

IC, REPLACEMENTS

VQA Zero Headpace: NP

Preservation Correct/Checked: NP

If preservation required by Login, Date/Time

Hold:

Condition: **NCF**

Tracking # **4269 9216 6713**

Received by: (Signature)

Temp: **37.50** °C

Date: **4/13/18** Time: **0815**

Received by: (Signature)

Approved for Lab by: (Signature)



ESC Lab Sciences
 Login Confirmation Report
 April 13, 2018 - 09:33

Account: PESENVSWA - PES Environmental, Inc.- WA

Login # L985379

Template # T134175

Report to: Brian O'Neal/Bill Haldeman

1215 Fourth Ave., Suite 1350

Seattle, WA 98161

Phone: (206) 529-3980 FAX: (206) 529-3985

Email: boncal@pesenv.com; bhaldean@pesenv.com

Login Comments: RSK175LL

V8260LLC

6020 Metals

Receive Date: 04/13/2018

Entered: 04/13/2018

Lab Project Number: PESENVSWA-ALP

Client Project # 1413.001.05.601

Project Description:

Collected By: Jeff Dobbins

Reg. State: WA

TSR: Brian Ford

By: Matt Shacklock

Report MDL: Y

HDC: N

PO #

PO Req: N

Terms: 30

Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L985379-01		MW-137-041218	04/12/2018 15:20	Site:	Est. Due Date*: 04/20/2018 - R5	
			Sample Description: American Linen			
GW	ALK	Alkalinity		UPPB	2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC		UPPB	9056A	\$ 15.00
GW	FEG	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	MNG	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	NITRATE	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00
Misc	ENERGY	Energy Surcharge				\$ 15.00
Misc	HARDCOPY	Hardcopy Report Charge				\$ 0.00
Misc	MTLPREP	Metals Prep Fee per Set				\$ 12.00
L985379-02		MW-112-041218	04/12/2018 10:46	Site:	Est. Due Date*: 04/20/2018 - R5	
			Sample Description: American Linen			
GW	ALK	Alkalinity		UPPB	2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC		UPPB	9056A	\$ 15.00
GW	FEG	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	MNG	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	NITRATE	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00

Sample ID	Sample Description	Sample Date	Sample Description	Sample Date	Site	Est. Due Date	Amount
L985379-03	MW-140-041218	04/12/2018 13:04	American Linen	04/20/2018 - R5			
	Alkalinity				UPPB	2320 B-2011	\$ 15.00
	Chloride by IC				UPPB	9056A	\$ 15.00
	Iron by ICPMS				UPPB	6020A	\$ 15.00
	Manganese by ICPMS				UPPB	6020A	\$ 15.00
	Nitrate by IC				UPPB	9056A	\$ 12.00
	NWTPH Gasoline Range Organics				UPPB	NWTPHGX	\$ 30.00
	RSK -175 Low Level				UPPB	3810/RSK175	\$ 75.00
	Sulfate by IC				UPPB	9056A	\$ 12.00
	TOC (Total Organic Carbon)				UPPB	9060A	\$ 25.00
	Volatiles (Low Level)				UPPB	8260C	\$ 70.00
L985379-04	MW-141-041218	04/12/2018 09:18	American Linen	04/20/2018 - R5			
	Alkalinity				UPPB	2320 B-2011	\$ 15.00
	Chloride by IC				UPPB	9056A	\$ 15.00
	Iron by ICPMS				UPPB	6020A	\$ 15.00
	Manganese by ICPMS				UPPB	6020A	\$ 15.00
	Nitrate by IC				UPPB	9056A	\$ 12.00
	NWTPH Gasoline Range Organics				UPPB	NWTPHGX	\$ 30.00
	RSK -175 Low Level				UPPB	3810/RSK175	\$ 75.00
	Sulfate by IC				UPPB	9056A	\$ 12.00
	TOC (Total Organic Carbon)				UPPB	9060A	\$ 25.00
	Volatiles (Low Level)				UPPB	8260C	\$ 70.00
L985379-05	TRIP BLANK	04/12/2018 00:00	American Linen	04/20/2018 - R5			
	NWTPH Gasoline Range Organics				UPPB	NWTPHGX	\$ 30.00
	Volatiles (Low Level)				UPPB	8260C	\$ 70.00

Information Only - Not An Invoice - Do Not Pay! Total: \$ 1,263.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.



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

L #
Table #
Acctnum: PESENVSWA
Template: T134175
Prelogin: P645197
TSR: 110 - Brian Ford
PB: 300-1803

Shipped Via: FedEX Ground
Remarks
Sample # (lab only)

Analysis / Container / Preservative	Pres Chk
NO3,SO4,Cl,Aik 250mlHDPE-NOPRES	
NWTFHGX 40mlamb HCl	
RSK175LL (EEM) 40mlamb-HCl	
TOC 250mlamb-HCl	
Total Fe Mn 6020 250mlHDPE-HNO3	
VR260LLC VOCs 40mlamb-HCl	
dry wt. Nopres	

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

Email To: boneal@pesenv.com;
bhaldeaman@pesenv.com

City/State Collected: Seattle, WA
Lab Project # PESENVSWA-ALP
P.O. #

Quote #
Date Results Needed
No. of Cntrs

PES Environmental, Inc.- WA
1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to: Brian O'Neal/Bill Haldeman
Project Description: American Linen
Client Project # 1413-001.05.601
Phone: 206-529-3980
Fax: 206-529-3985

Collected by (print): Jeff Dalbo
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

Sample ID
Comp/Grab
Matrix *
Depth
Date
Time

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time
SS-2-041318	Grab	GW		4/3/18	0912
MW-8-041318		GW		4/3/18	1005
MW-124-041318		GW		4/3/18	1158
MW-142-5		SGW		4/12/18	1153
DW-01-041318		GW		4/13/18	0911
		GW			
		GW			
		GW			
		GW			
		GW			
		GW			

Remarks: *Nitrate has a 48 hour hold time*
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: Time: Trip Blank Received: Yes / No HCL / MeOH TBR
Received by: (Signature) Temp: °C Bottles Received: Date: Time: Hold: Condition: NCF / OK



ESC Lab Sciences
Login Confirmation Report
 April 14, 2018 - 14:18

Account: PESENVSWA - PES Environmental, Inc.- WA

Login # L985781
Template # T134175
Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Phone: (206) 529-3980 **FAX:** (206) 529-3985
Email: boneal@pesenv.com; bhaldeman@pesenv.com

Login Comments: RSK175LL
 V8260LLC
 6020 Metals

Receive Date: 04/14/2018
Entered: 04/14/2018

Lab Project Number: PESENVSWA-ALP
Client Project # 1413.001.05.601
Project Description:
 Collected By: Jeff Dobbins
 Reg. State: WA

TSR: Brian Ford
By: Matthew Lockhart
Report MDL: Y
HDC: N
PO #
PO Req: N
Terms: 30
Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L985781-01		SCS-2-041318	04/13/2018 09:12 Sample Description: American Linen	Site:		Est. Due Date*: 04/23/2018 - R5
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00
Misc	DISPOSAL	Sample Disposal Charge				\$ 5.00
Misc	ENERGY	Energy Surcharge				\$ 15.00
Misc	HARDCOPY	Hardcopy Report Charge				\$ 0.00
Misc	MTLPREP	Metals Prep Fee per Set				\$ 12.00
Misc	SHIPPING	Inbound Transport Charge				\$ 0.00
L985781-02		MW-8-041318	04/13/2018 10:05 Sample Description: American Linen	Site:		Est. Due Date*: 04/23/2018 - R5
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L985781-03		MW-124-041318	04/13/2018 11:58 Sample Description: American Linen	Site:		Est. Due Date*: 04/23/2018 - R5
GW	ALK	Alkalinity		UPPB	2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC		UPPB	9056A	\$ 15.00
GW	FEG	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	MNG	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	NITRATE	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L985781-04		MW-142-S	04/12/2018 11:53 Sample Description: American Linen	Site:		Est. Due Date*: 04/23/2018 - R5
SS	TERRACORE	Terracore 5035 kit				\$ 10.00
SS	TS	Total Solids		DEFAULT	2540 G-2011	\$ 3.00
SS	V8260C	Volatiles		UDRYWT	8260C	\$ 70.00

L985781-05	W-MW-01-041318	04/13/2018 09:11	Sample Description: American Linen	Site:	Est. Due Date*: 04/23/2018 - R5
GW	ALK	Alkalinity		UPPB	2320 B-2011
GW	CHLORIDE	Chloride by IC		UPPB	9056A
GW	FEG	Iron by ICPMS		UPPB	6020A
GW	MNG	Manganese by ICPMS		UPPB	6020A
GW	NITRATE	Nitrate by IC		UPPB	9056A
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175
GW	SULFATE	Sulfate by IC		UPPB	9056A
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C
					\$ 15.00
					\$ 15.00
					\$ 15.00
					\$ 15.00
					\$ 12.00
					\$ 30.00
					\$ 75.00
					\$ 12.00
					\$ 25.00
					\$ 70.00
					\$ 823.00

Information Only - Not An Invoice - Do Not Pay! Total:

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.



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:
Brian O'Neal/Bill Haldeman

Project Description:
 American Line

Client Project #
 1413.001.05.601

City/State Collected:
 Seattle, WA

Lab Project #
 PESENVSWA-ALP

Site/Facility ID #

P.O. #

Quote #

Rush? (Lab MUST Be Notified)
 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

Remarks: *Nitrate has a 48 hour hold time*

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

Samples returned via:
 ___ UPS ___ FedEx ___ Courier

Analysis / Container / Preservative	Pres Chk
NO ₃ ,SO ₄ ,Cl,AiK 250mlHDFE-NOPres	
NWTPHGX 40mlAmb HCl	
RSK175LL (EEM) 40mlAmb-HCl	
TOC 250mlAmb-HCl	
Total Fe Mn 6020 250mlHDFE-HNO3	
V8260LLC VOCs 40mlAmb-HCl	

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
M10-123-0414668		GW		4/14/14	1458	3
M10-134-0416156		GW		4/16/14	1443	11
M10-130-041618		GW		4/16/14	1316	11
M10-131-041618		GW		4/16/14	1531	11
TRIP BLANK		GW				1
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				

Shipped Via: FedEx Ground

Remarks: Sample # (lab only)

Accnum: PESENVSWA
Template: T134175
Prelogin: P645197
TSR: 110 - Brian Ford
PB: 8-28-1803

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

Analysis / Container / Preservative

Received by: (Signature)

Temp: °C

Date:

Flow

Received for lab by: (Signature)

Temp: °C

Date:

pH

Received by: (Signature)

Temp: °C

Date:

Other

Received for lab by: (Signature)

Temp: °C

Date:

HCL / MeOH TBR

Received by: (Signature)

Temp: °C

Date:

Bottles Received:

Received by: (Signature)

Condition: NCF / OK

PES Environmental, Inc. - WA
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project: *American Linen*
 Client Project #
1413-001.05.601

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

Collected by (print): *Jeff Dobbins*

Collected by (signature): *[Signature]*

Immediately Packed on Ice: N Y X

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
MW-123-041418	Grab	GW		4/14/18	1458	3
MW-134-041618		GW		4/16/18	1443	11
MW-130-041618		GW		4/16/18	1316	11
MW-131-041618		GW		4/16/18	1531	11
TRIP BLANK		GW				1
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				

Remarks: *Nitrate has a 48 hour hold time*

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

Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature) _____ Date: _____
 Relinquished by: (Signature) _____ Date: _____
 Relinquished by: (Signature) _____ Date: _____

Analysis / Container / Preservative

Pres Chk	Analysis / Container / Preservative	No. of Cntrs
	NO3,SO4,Cl,Alk 250mlHDPF-NOPres	
	NWTPHGX 40mlAmb HCl	
	RSK175LL (EEM) 40mlAmb-HCl	
	TOC 250mlAmb-HCl	
	Total Fe Mn 6020 250mlHDPF-HNO3	
	V8260LLC VOCs 40mlAmb-HCl	

Chain of Custody Page 1 of 1



17065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-757-5859
 Fax: 615-758-5859

LAB SERVICES
 A MEMBER OF

QR Code

L# 1986193
 T# D056

Account: PESENVSWWA
 Template: T134175
 Prelogin: P645197
 TSR: 110 - Brian Ford
 PB: 3-22-18CS
 Shipped Via: FedEx Ground

Remarks	Sample # (Lab only)
	-01
	-02
	-03
	-04
	-05

Simple Process Checklist
 SCC Seal Present/Intact: Y / N
 SCC Signed/Accurate: Y / N
 Bottles arrive intact: Y / N
 Construct bottles used: Y / N
 Sufficient volume sent: Y / N
 IE APPLICABLE
 VQA Zero Headpace: Y / N
 Preservation Correct/Checked: Y / N

If preservation required by Log in: Date/Time
 Hold:
 Condition: NCF / OK

pH _____ Temp _____
 Flow _____ Other _____

Trip Blank Received: Yes / No
 Temp: 7.2 °C Bottles Received: 36
 Date: 4/17/18 Time: 8:45

Tracking # 4269 9216 6724

Received by: (Signature) _____
 Received by: (Signature) _____
 Received for lab by: (Signature) _____
 84



ESC Lab Sciences
Login Confirmation Report
 April 17, 2018 - 11:36

Account: PESENVSWA - PES Environmental, Inc.- WA

Login # L986193
Template # T134175
Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161
 Phone: (206) 529-3980 FAX: (206) 529-3985
 Email: boneal@pesenv.com; bhaldeman@pesenv.com
Login Comments: RSK175LL
 V8260LLC
 6020 Metals

Receive Date: 04/17/2018
Entered: 04/17/2018
Lab Project Number: PESENVSWA-ALP
Client Project # 1413.001.05.601
Project Description:
 Collected By: Jeff Dobbins
 Reg. State: WA

TSR: Brian Ford
By: Troy Dunlap
Report MDL: Y
HDC: N
PO #
PO Req: N
Terms: 30
Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L986193-01		MW-123-041418	04/14/2018 14:58	Site:	Est. Due Date*: 04/24/2018 - R5	
GW	V8260LLC	Volatiles (Low Level)	Sample Description: American Linen	UPPB	8260C	\$ 70.00
L986193-02		MW-134-041618	04/16/2018 14:43	Site:	Est. Due Date*: 04/24/2018 - R5	
GW	ALK	Alkalinity	Sample Description: American Linen	UPPB	2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC		UPPB	9056A	\$ 15.00
GW	FEG	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	MNG	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	NITRATE	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00
L986193-03		MW-130-041618	04/16/2018 13:16	Site:	Est. Due Date*: 04/24/2018 - R5	
GW	ALK	Alkalinity	Sample Description: American Linen	UPPB	2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC		UPPB	9056A	\$ 15.00
GW	FEG	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	MNG	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	NITRATE	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00

L986193-04	MW-131-041618	04/16/2018 15:31	Est. Due Date*: 04/24/2018 - R5
GW	ALK	Alkalinity	2320 B-2011
GW	CHLORIDE	Chloride by IC	9056A
GW	FEG	Iron by ICPMS	6020A
GW	MNG	Manganese by ICPMS	6020A
GW	NITRATE	Nitrate by IC	9056A
GW	NWTPHGX	NWTPH Gasoline Range Organics	NWTPHGX
GW	RSK175LL	RSK -175 Low Level	3810/RSK175
GW	SULFATE	Sulfate by IC	9056A
GW	TOC	TOC (Total Organic Carbon)	9060A
GW	V8260LLC	Volatiles (Low Level)	8260C
L986193-05	TRIP BLANK	04/16/2018 00:00	Est. Due Date*: 04/24/2018 - R5
		Sample Description: American Linen	
		Sample Comments: Run V8260LLC,NWTPHGX from sample container.	
GW	NWTPHGX	NWTPH Gasoline Range Organics	NWTPHGX
GW	V8260LLC	Volatiles (Low Level)	8260C
		Information Only - Not An Invoice - Do Not Pay! Total:	\$ 1,022.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.

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

Region to:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

Project Description: *American Legion*

City/State Collected: *Seattle, WA*

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

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Collected by (print): *Bill Haldeman*

Site/Facility ID #

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 as to: *Y X*

Sample ID	Comp/Grain	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative											
							*NO3, SO4, Cl, Alk * 250mlHDPE-NoPres	NWTPHGX 40mlAmb-HCl	RSK175LL (EEM) 40mlAmb-HCl	TOC 250mlAmb-HCl	Total Fe Min 6020 250mlHDPE-HNO3	V8260LLC VOCs 40mlAmb-HCl						
H101-042518	GW	GW		4/25/18	0936	11	X	X	X	X	X							
H101-042519	GW	GW		4/25/18	0950	11	X	X	X	X	X							
H101-042520	GW	GW		4/25/18	1104	3												
H101-042521	GW	GW		4/25/18	1109	11	X	X	X	X	X							
H101-042522	GW	GW		4/25/18	1307	8												
H101-042523	GW	GW		4/25/18	1505	11	X	X	X	X	X							

Chain of Custody Page 1 of 1



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-757-5859
Fax: 615-258-5859

L #

Table #

Acctnum: PESENVSWA
Template: T134175
Prelogin: P645197
TSR: 110 - Brian Ford
PB: *[Signature]*
Shipped Via: FedEX Ground

Remarks Sample # (Lab only)

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

Remarks: *Nitrate has a 48 hour hold time*

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist
 OOC Seal Present/Intact: Y N
 VOC Signed/Adapted: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 WVA Zero Handover: Y N
 Preservation Correct/Checked: Y N

Samples returned via:
 UPS FedEx Courier

Tracking # _____
 Trip Blank Received: Yes / No
 HCL / MeOH
 TB

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:	II preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)			
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Hold: Condition: NCF / OK



ESC Lab Sciences
Login Confirmation Report
 April 26, 2018 - 13:23

Account: PESENVSWA - PES Environmental, Inc.- WA

Login # L988839

Template # T134175

Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161

Phone: (206) 529-3980 **FAX:** (206) 529-3985

Email: boneal@pesenv.com; bhaldean@pesenv.com

Login Comments: RSK175LL
 V8260LLC
 6020 Metals

Receive Date: 04/26/2018

Entered: 04/26/2018

Lab Project Number: PESENVSWA-ALP
Client Project # 1413.001.05.601

Project Description:

Collected By: Jeff Dobbins
Reg. State: WA

TSR: Brian Ford

By: Jeremy W. Watkins

Report MDL: Y

HDC: N

PO #

PO Req: N

Terms: 30

Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L988839-01		MW-139-042518	04/25/2018 08:36	Site:	Est. Due Date*: 05/03/2018 - R5	
GW	ALK	Alkalinity	Sample Description: American Linen	UPPB	2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC		UPPB	9056A	\$ 15.00
GW	FEG	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	MNG	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	NITRATE	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00
Misc	DISPOSAL	Sample Disposal Charge				\$ 5.00
Misc	ENERGY	Energy Surcharge				\$ 15.00
Misc	HARDCOPY	Hardcopy Report Charge				\$ 0.00
Misc	MTLPREP	Metals Prep Fee per Set				\$ 12.00
Misc	SHIPPING	Inbound Transport Charge				\$ 0.00
L988839-02		MW-135-042518	04/25/2018 09:50	Site:	Est. Due Date*: 05/03/2018 - R5	
GW	ALK	Alkalinity	Sample Description: American Linen	UPPB	2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC		UPPB	9056A	\$ 15.00
GW	FEG	Iron by ICPMS		UPPB	6020A	\$ 15.00
GW	MNG	Manganese by ICPMS		UPPB	6020A	\$ 15.00
GW	NITRATE	Nitrate by IC		UPPB	9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics		UPPB	NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level		UPPB	3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC		UPPB	9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)		UPPB	9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)		UPPB	8260C	\$ 70.00

Sample ID	Sample Description	Sample Date	Site	Est. Due Date	Amount
L988839-03	IW-13C-042518 Volatiles (Low Level)	04/25/2018 12:29 Sample Description: American Linen	UPPB	05/03/2018 - R5	\$ 70.00
L988839-04	MW-133-042518 Alkalinity Chloride by IC Iron by ICPMS Manganese by ICPMS Nitrate by IC NWTPH Gasoline Range Organics RSK -175 Low Level Sulfate by IC TOC (Total Organic Carbon) Volatiles (Low Level)	04/25/2018 11:21 Sample Description: American Linen	UPPB	05/03/2018 - R5	\$ 15.00 \$ 15.00 \$ 15.00 \$ 15.00 \$ 12.00 \$ 30.00 \$ 75.00 \$ 12.00 \$ 25.00 \$ 70.00
L988839-05	IW-2213-042518 Volatiles (Low Level)	04/25/2018 13:09 Sample Description: American Linen	UPPB	05/03/2018 - R5	\$ 70.00
L988839-06	MW102-042518 Alkalinity Chloride by IC Iron by ICPMS Manganese by ICPMS Nitrate by IC NWTPH Gasoline Range Organics RSK -175 Low Level Sulfate by IC TOC (Total Organic Carbon) Volatiles (Low Level)	04/25/2018 15:05 Sample Description: American Linen	UPPB	05/03/2018 - R5	\$ 15.00 \$ 15.00 \$ 15.00 \$ 15.00 \$ 12.00 \$ 30.00 \$ 75.00 \$ 12.00 \$ 25.00 \$ 70.00

Information Only - Not An Invoice - Do Not Pay! Total: \$ 1,308.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.

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:
Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;
bhaldeman@pesenv.com

Project

Description: *American Legion*

City/State

Collected: *Seattle WA*

Phone: 206-529-3980

Client Project #
1413.001.05.601

Lab Project #
PESENVSWA-ALP

Fax: 206-529-3985

Collected by (print):
Jack D. Haldeman

Site/Facility ID #

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

Pres
Chk

Analysis / Container / Preservative

V8260C.VOCs-40ml/NaHSO4/SW/MeOH	dry wt.voc screen-2ozClr-NoPres...	NO3,SO4,Cl,Air 250ml HDPE	NO3,SO4,Cl,Air 40ml/NaHSO4-HCl	ESK175LLCEM40ml/NaHSO4-HCl	TOC 250ml/NaHSO4-HCl	Total Fe Manganese 250ml HDPE	V526011C VOCs 40ml/NaHSO4-HCl
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Chain of Custody Page of



12065 Lakewood Rd
Mooresville, TN 37122
Phone: 615-758-5858
Phone: 800-787-5859
Fax: 615-758-5859



LF #
Table #
Account: PESENVSWA
Template: T134174
Prelogin: P645191
TSR: 110 - Brian Ford
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260C.VOCs-40ml/NaHSO4/SW/MeOH	dry wt.voc screen-2ozClr-NoPres...	NO3,SO4,Cl,Air 250ml HDPE	NO3,SO4,Cl,Air 40ml/NaHSO4-HCl	ESK175LLCEM40ml/NaHSO4-HCl	TOC 250ml/NaHSO4-HCl	Total Fe Manganese 250ml HDPE	V526011C VOCs 40ml/NaHSO4-HCl
TW-46-CHZ16	Grab	SS	6" W	4/26/14	0804	3								
MW-18-CHZ16		SS	1' W	4/26/14	0824	11		X	X	X	X	X	X	X
MW-156-CHZ16		SS	1' W	4/26/14	1205	11		X	X	X	X	X	X	X
MW-157-CHZ16		SS	1' W	4/26/14	1311	11		X	X	X	X	X	X	X
MW-159-CHZ16		SS	1' W	4/26/14	1406	6								X
TRIPLE BLANK-CHZ16		SS		4/26/14										
		SS												
		SS												
		SS												
		SS												

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

Remarks:

Samples returned via:
___ UPS ___ FedEx ___ Courier ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC signed/Accurate: Y N
Bottles airtight/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)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:	Tripo Blank Received: Yes / No HCL / MeOH TBH	If preservation required by LogIn: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Hold:	Condition: NCF / OK

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Report to:
Brian O'Neal/Bill Haldeman

Project Description: **American Lichen**
Phone: 206-529-3980
Fax: 206-529-3985

Collected by (print): **Jeff Dobbins**
Collected by (signature): *[Signature]*
Immediately Packed on Ice: Y N

Client Project #
1413.001.05.601

Site/Facility ID #
PESENVSWA-ALP

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Road Only)
 Two Day 10 Day (Bad Only)
 Three Day

Sample ID	Comp/Greb	Matrix *	Depth	Date	Time	No. of Ltrts
JW-4C-042618	Greb	SS-GW		4/26/18	0808	13
MW-132-042618		SS-GW		4/26/18	0924	11
MW-156-042618		SS-GW		4/26/18	1205	11
MW-157-042618		SS-GW		4/26/18	1311	11
MW-159-042618		SS-GW		4/26/18	1406	6
TRIP BLANK-042618		SS		4/26/18		
		SS				
		SS				
		SS				

Remarks:

* Matrix: SS - Soil, AIR - Air, F - Filter
 GW - Groundwater, B - Biosay
 WW - Waste Water, DW - Drinking Water
 OT - Other

Samples returned via:
 UPS FedEx Courier

Relinquished by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:

Billing Information:
 Attn: Accounts Payable
 1215 Fourth Ave., Ste. 1350
 Seattle, WA 98161
 Email To: bhoneal@pesenv.com;
 bhaldeman@pesenv.com

City/State Collected: **Seattle, WA**
 Lab Project #
PESENVSWA-ALP
 P.O. #
Quote #

Date Results Needed

Analysis / Container / Preservative	Procs	Clk
W8260C VOCs 40ml/NM504/SYR/MEOH		
dry wt. VOC screen 2oz/ck - NPRES		
NOS, SO4, Cl, Aik 250ml/HDR/1pc		
NUTR 6X 40ml/Amb HCl		
PSK 175LL (EEH) 40ml/Amb HCl		
TOC 250ml/Amb - HCl		
Total Fe M46020 250ml/HDR/1pc		
V8260LLC VOCs 40ml/Amb HCl		

Chain of Custody Page 1 of 1

LABORATORY OF RELIABILITY

120045 Lebanon Rd
 Millport, TN 37122
 Phone: 615-734-5858
 Phone: 800-367-5859
 Fax: 615-734-5859

LF: 1989149
 D155

Account: PESENVSWA
 Template: T134174
 Prelog(n): P645191
 T5R: 110 - Brian Ford
 #B:

Shipped Via: **FedEX Ground**
 Remarks: Sample # (lab only)

	-01
	02
	03
	0V
	0S
	0L

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
 as Applicable
 VOA zero Headspaces: Y N
 Preservation Correct/Checked: Y N

PH _____ Temp _____
 Flow _____ Other _____

Trip Blank Received: Y / No N
 TA/Meah

Temp: 0.17 °C Bottles Received: 42
 Date: 4/27/18 Time: 8:45

Tracking # 4196 3258 8014
 Received by: (Signature) _____
 Received by: (Signature) _____
 Received for lab by: (Signature) *[Signature]*

Condition:
 MCF / *[initials]*



ESC Lab Sciences
 Login Confirmation Report
 April 27, 2018 - 13:22

Account: PESENVSWA - PES Environmental, Inc.- WA

Login # **L989149**
 Template #
 Report to: Brian O'Neal/Bill Haldeman
 1215 Fourth Ave., Suite 1350
 Seattle, WA 98161
 Phone: (206) 529-3980 FAX: (206) 529-3985
 Email: boneal@pesenv.com; bhaldeman@pesenv.com
 Login Comments: **RSK175LL**
V8260LLC
6020 Metals

Receive Date: 04/27/2018
 Entered: 04/27/2018
 Lab Project Number: PESENVSWA-ALP
 Client Project # 1413.001.05.601
 Project Description:
 Collected By: Jeff Dobbins
 Reg. State: WA

TSR: Brian Ford
 By: Andy Vann
 Report MDL: Y
 HDC: N
 PO #
 Terms: 30
 Quote #

Matrix	Test	Sample ID	Collection Date	Design ID	Method	Unit Price
L989149-01		IW-4C-042618	04/26/2018 08:08	Site:	8260C	Est. Due Date*: 05/04/2018 - R5
			Sample Description: American Linen	UPPB		
GW	V8260LLC	Volatiles (Low Level)				\$ 70.00
Misc	DISPOSAL	Sample Disposal Charge				\$ 5.00
Misc	ENERGY	Energy Surcharge				\$ 15.00
Misc	HARDCOPY	Hardcopy Report Charge				\$ 0.00
Misc	SHIPPING	Inbound Transport Charge				\$ 0.00
L989149-02		MW-132-042618	04/26/2018 09:24	Site:		Est. Due Date*: 05/04/2018 - R5
			Sample Description: American Linen	UPPB		
GW	ALK	Alkalinity			2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC			9056A	\$ 15.00
GW	FEG	Iron by ICPMS			6020A	\$ 15.00
GW	MNG	Manganese by ICPMS			6020A	\$ 15.00
GW	NITRATE	Nitrate by IC			9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics			NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level			3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC			9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)			9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)			8260C	\$ 70.00
Misc	MTLPREP	Metals Prep Fee per Set				\$ 12.00
L989149-03		MW-156-042618	04/26/2018 12:05	Site:		Est. Due Date*: 05/04/2018 - R5
			Sample Description: American Linen	UPPB		
GW	ALK	Alkalinity			2320 B-2011	\$ 15.00
GW	CHLORIDE	Chloride by IC			9056A	\$ 15.00
GW	FEG	Iron by ICPMS			6020A	\$ 15.00
GW	MNG	Manganese by ICPMS			6020A	\$ 15.00
GW	NITRATE	Nitrate by IC			9056A	\$ 12.00
GW	NWTPHGX	NWTPH Gasoline Range Organics			NWTPHGX	\$ 30.00
GW	RSK175LL	RSK -175 Low Level			3810/RSK175	\$ 75.00
GW	SULFATE	Sulfate by IC			9056A	\$ 12.00
GW	TOC	TOC (Total Organic Carbon)			9060A	\$ 25.00
GW	V8260LLC	Volatiles (Low Level)			8260C	\$ 70.00

L989149-04	MW-157-042618	04/26/2018 13:11	Sample Description: American Linen	Site:	Est. Due Date*: 05/04/2018 - R5
GW	ALK		Alkalinity	UPPB	2320 B-2011
GW	CHLORIDE		Chloride by IC	UPPB	9056A
GW	FEG		Iron by ICPMS	UPPB	6020A
GW	MNG		Manganese by ICPMS	UPPB	6020A
GW	NITRATE		Nitrate by IC	UPPB	9056A
GW	NWTPHGX		NWTPH Gasoline Range Organics	UPPB	NWTPHGX
GW	RSK175LL		RSK -175 Low Level	UPPB	3810/RSK175
GW	SULFATE		Sulfate by IC	UPPB	9056A
GW	TOC		TOC (Total Organic Carbon)	UPPB	9060A
GW	V8260LLC		Volatiles (Low Level)	UPPB	8260C
L989149-05	MW-159-042618	04/26/2018 14:06	Sample Description: American Linen	Site:	Est. Due Date*: 05/04/2018 - R5
GW	NWTPHGX		NWTPH Gasoline Range Organics	UPPB	NWTPHGX
GW	V8260LLC		Volatiles (Low Level)	UPPB	8260C
L989149-06	TRIPBLANK-042618	04/26/2018 00:00	Sample Description: American Linen Sample Comments: two analyses from one vial	Site:	Est. Due Date*: 05/04/2018 - R5
GW	NWTPHGX		NWTPH Gasoline Range Organics	UPPB	NWTPHGX
GW	V8260LLC		Volatiles (Low Level)	UPPB	8260C

Information Only - Not An Invoice - Do Not Pay! Total: \$ 1,154.00

* Due Date listed is an estimate based on average workloads. Please communicate required dates to your TSR.