

July 12, 2019

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

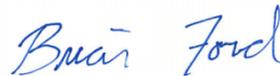
9 Sc

## Cascade Corporation- Fairview, OR

Sample Delivery Group: L1114294  
Samples Received: 06/29/2019  
Project Number: PNG0564S19  
Description:

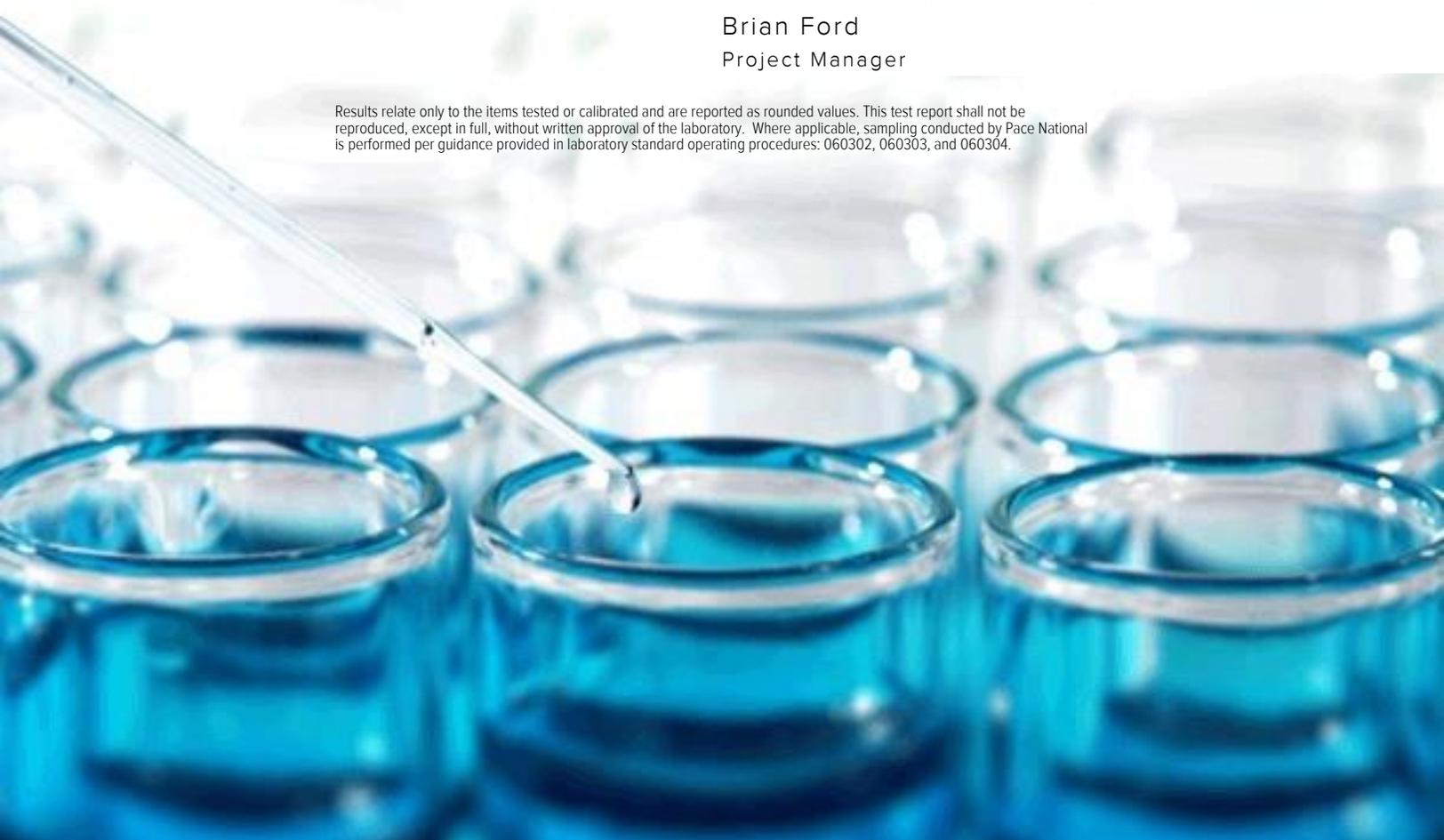
Report To: Cindy Bartlett  
2201 NE 201st Avenue  
Fairview, OR 97024-9718

Entire Report Reviewed By:



Brian Ford  
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.





<b>Cp: Cover Page</b>	<b>1</b>	<b>1</b> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b>2</b> Tc
<b>Cn: Case Narrative</b>	<b>4</b>	
<b>Sr: Sample Results</b>	<b>5</b>	<b>3</b> Ss
VMW_IDW01 L1114294-01	<b>5</b>	
VMW_IDW02 L1114294-02	<b>7</b>	<b>4</b> Cn
VMW_IDW03 L1114294-03	<b>9</b>	<b>5</b> Sr
<b>Qc: Quality Control Summary</b>	<b>11</b>	
Total Solids by Method 2540 G-2011	<b>11</b>	<b>6</b> Qc
Mercury by Method 7471B	<b>13</b>	
Metals (ICP) by Method 6010D	<b>14</b>	<b>7</b> Gl
Volatile Organic Compounds (GC/MS) by Method 8260C	<b>15</b>	<b>8</b> Al
<b>Gl: Glossary of Terms</b>	<b>19</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>20</b>	<b>9</b> Sc
<b>Sc: Sample Chain of Custody</b>	<b>21</b>	

# SAMPLE SUMMARY

## VMW\_IDW01 L1114294-01 Solid

Collected by  
Brian Webb  
Collected date/time  
06/28/19 14:00  
Received date/time  
06/29/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307277	1	07/08/19 13:53	07/08/19 14:01	KBC	Mt. Juliet, TN
Mercury by Method 7471B	WG1307294	1	07/06/19 14:05	07/07/19 16:17	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1307036	1	07/07/19 06:41	07/07/19 20:19	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1307036	1	07/07/19 06:41	07/08/19 09:26	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1307486	1.21	06/28/19 14:00	07/07/19 13:16	ACG	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## VMW\_IDW02 L1114294-02 Solid

Collected by  
Brian Webb  
Collected date/time  
06/28/19 14:00  
Received date/time  
06/29/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307278	1	07/08/19 13:39	07/08/19 13:45	KBC	Mt. Juliet, TN
Mercury by Method 7471B	WG1307294	1	07/06/19 14:05	07/07/19 16:44	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1307036	1	07/07/19 06:41	07/07/19 20:22	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1307486	1	06/28/19 14:00	07/07/19 13:37	ACG	Mt. Juliet, TN

## VMW\_IDW03 L1114294-03 Solid

Collected by  
Brian Webb  
Collected date/time  
06/28/19 14:00  
Received date/time  
06/29/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1307278	1	07/08/19 13:39	07/08/19 13:45	KBC	Mt. Juliet, TN
Mercury by Method 7471B	WG1307294	1	07/06/19 14:05	07/07/19 16:46	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1307036	1	07/07/19 06:41	07/07/19 20:25	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1307486	1.18	06/28/19 14:00	07/07/19 13:59	ACG	Mt. Juliet, TN



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 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  
Project Manager

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	71.7		1	07/08/2019 14:01	<a href="#">WG1307277</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Mercury	ND		0.0279	1	07/07/2019 16:17	<a href="#">WG1307294</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Arsenic	ND		2.79	1	07/07/2019 20:19	<a href="#">WG1307036</a>
Barium	243		0.698	1	07/07/2019 20:19	<a href="#">WG1307036</a>
Cadmium	ND		0.698	1	07/07/2019 20:19	<a href="#">WG1307036</a>
Chromium	125		1.40	1	07/07/2019 20:19	<a href="#">WG1307036</a>
Lead	1.34		0.698	1	07/07/2019 20:19	<a href="#">WG1307036</a>
Selenium	ND		2.79	1	07/08/2019 09:26	<a href="#">WG1307036</a>
Silver	ND		1.40	1	07/07/2019 20:19	<a href="#">WG1307036</a>

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Acetone	ND		0.0422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Acrylonitrile	ND		0.0211	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Benzene	ND		0.00169	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Bromobenzene	ND		0.0211	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Bromodichloromethane	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Bromoform	ND		0.0422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Bromomethane	ND		0.0211	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
n-Butylbenzene	ND		0.0211	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
sec-Butylbenzene	ND		0.0211	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
tert-Butylbenzene	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Carbon tetrachloride	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Chlorobenzene	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Chlorodibromomethane	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Chloroethane	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Chloroform	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Chloromethane	ND		0.0211	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
2-Chlorotoluene	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
4-Chlorotoluene	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,2-Dibromo-3-Chloropropane	ND		0.0422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,2-Dibromoethane	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Dibromomethane	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,2-Dichlorobenzene	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,3-Dichlorobenzene	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,4-Dichlorobenzene	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
Dichlorodifluoromethane	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,1-Dichloroethane	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,2-Dichloroethane	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,1-Dichloroethene	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
cis-1,2-Dichloroethene	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
trans-1,2-Dichloroethene	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,2-Dichloropropane	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,1-Dichloropropene	ND		0.00422	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>
1,3-Dichloropropane	ND		0.00844	1.21	07/07/2019 13:16	<a href="#">WG1307486</a>

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
cis-1,3-Dichloropropene	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
trans-1,3-Dichloropropene	ND		0.00844	1.21	07/07/2019 13:16	WG1307486
2,2-Dichloropropane	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
Di-isopropyl ether	ND		0.00169	1.21	07/07/2019 13:16	WG1307486
Ethylbenzene	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
Hexachloro-1,3-butadiene	ND		0.0422	1.21	07/07/2019 13:16	WG1307486
Isopropylbenzene	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
p-Isopropyltoluene	ND		0.00844	1.21	07/07/2019 13:16	WG1307486
2-Butanone (MEK)	ND		0.0422	1.21	07/07/2019 13:16	WG1307486
Methylene Chloride	ND		0.0422	1.21	07/07/2019 13:16	WG1307486
4-Methyl-2-pentanone (MIBK)	ND		0.0422	1.21	07/07/2019 13:16	WG1307486
Methyl tert-butyl ether	ND		0.00169	1.21	07/07/2019 13:16	WG1307486
Naphthalene	ND		0.0211	1.21	07/07/2019 13:16	WG1307486
n-Propylbenzene	ND		0.00844	1.21	07/07/2019 13:16	WG1307486
Styrene	ND		0.0211	1.21	07/07/2019 13:16	WG1307486
1,1,1,2-Tetrachloroethane	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
1,1,2,2-Tetrachloroethane	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
1,1,2-Trichlorotrifluoroethane	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
Tetrachloroethene	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
Toluene	ND		0.00844	1.21	07/07/2019 13:16	WG1307486
1,2,3-Trichlorobenzene	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
1,2,4-Trichlorobenzene	ND		0.0211	1.21	07/07/2019 13:16	WG1307486
1,1,1-Trichloroethane	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
1,1,2-Trichloroethane	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
Trichloroethene	ND		0.00169	1.21	07/07/2019 13:16	WG1307486
Trichlorofluoromethane	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
1,2,3-Trichloropropane	ND		0.0211	1.21	07/07/2019 13:16	WG1307486
1,2,4-Trimethylbenzene	ND		0.00844	1.21	07/07/2019 13:16	WG1307486
1,2,3-Trimethylbenzene	ND	J4	0.00844	1.21	07/07/2019 13:16	WG1307486
1,3,5-Trimethylbenzene	ND		0.00844	1.21	07/07/2019 13:16	WG1307486
Vinyl chloride	ND		0.00422	1.21	07/07/2019 13:16	WG1307486
Xylenes, Total	ND		0.0110	1.21	07/07/2019 13:16	WG1307486
(S) Toluene-d8	107		75.0-131		07/07/2019 13:16	WG1307486
(S) 4-Bromofluorobenzene	97.1		67.0-138		07/07/2019 13:16	WG1307486
(S) 1,2-Dichloroethane-d4	97.3		70.0-130		07/07/2019 13:16	WG1307486

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
Total Solids	67.3		1	07/08/2019 13:45	<a href="#">WG1307278</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Mercury	0.0358		0.0297	1	07/07/2019 16:44	<a href="#">WG1307294</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Arsenic	ND		2.97	1	07/07/2019 20:22	<a href="#">WG1307036</a>
Barium	131		0.743	1	07/07/2019 20:22	<a href="#">WG1307036</a>
Cadmium	ND		0.743	1	07/07/2019 20:22	<a href="#">WG1307036</a>
Chromium	60.2		1.49	1	07/07/2019 20:22	<a href="#">WG1307036</a>
Lead	5.04		0.743	1	07/07/2019 20:22	<a href="#">WG1307036</a>
Selenium	ND		2.97	1	07/07/2019 20:22	<a href="#">WG1307036</a>
Silver	ND		1.49	1	07/07/2019 20:22	<a href="#">WG1307036</a>

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Acetone	0.0731		0.0371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Acrylonitrile	ND		0.0186	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Benzene	ND		0.00149	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Bromobenzene	ND		0.0186	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Bromodichloromethane	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Bromoform	ND		0.0371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Bromomethane	ND		0.0186	1	07/07/2019 13:37	<a href="#">WG1307486</a>
n-Butylbenzene	ND		0.0186	1	07/07/2019 13:37	<a href="#">WG1307486</a>
sec-Butylbenzene	ND		0.0186	1	07/07/2019 13:37	<a href="#">WG1307486</a>
tert-Butylbenzene	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Carbon tetrachloride	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Chlorobenzene	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Chlorodibromomethane	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Chloroethane	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Chloroform	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Chloromethane	ND		0.0186	1	07/07/2019 13:37	<a href="#">WG1307486</a>
2-Chlorotoluene	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
4-Chlorotoluene	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,2-Dibromo-3-Chloropropane	ND		0.0371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,2-Dibromoethane	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Dibromomethane	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,2-Dichlorobenzene	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,3-Dichlorobenzene	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,4-Dichlorobenzene	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
Dichlorodifluoromethane	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,1-Dichloroethane	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,2-Dichloroethane	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,1-Dichloroethene	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
cis-1,2-Dichloroethene	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
trans-1,2-Dichloroethene	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,2-Dichloropropane	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,1-Dichloropropene	ND		0.00371	1	07/07/2019 13:37	<a href="#">WG1307486</a>
1,3-Dichloropropane	ND		0.00743	1	07/07/2019 13:37	<a href="#">WG1307486</a>

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
cis-1,3-Dichloropropene	ND		0.00371	1	07/07/2019 13:37	WG1307486
trans-1,3-Dichloropropene	ND		0.00743	1	07/07/2019 13:37	WG1307486
2,2-Dichloropropane	ND		0.00371	1	07/07/2019 13:37	WG1307486
Di-isopropyl ether	ND		0.00149	1	07/07/2019 13:37	WG1307486
Ethylbenzene	ND		0.00371	1	07/07/2019 13:37	WG1307486
Hexachloro-1,3-butadiene	ND		0.0371	1	07/07/2019 13:37	WG1307486
Isopropylbenzene	ND		0.00371	1	07/07/2019 13:37	WG1307486
p-Isopropyltoluene	ND		0.00743	1	07/07/2019 13:37	WG1307486
2-Butanone (MEK)	ND		0.0371	1	07/07/2019 13:37	WG1307486
Methylene Chloride	ND		0.0371	1	07/07/2019 13:37	WG1307486
4-Methyl-2-pentanone (MIBK)	ND		0.0371	1	07/07/2019 13:37	WG1307486
Methyl tert-butyl ether	ND		0.00149	1	07/07/2019 13:37	WG1307486
Naphthalene	ND		0.0186	1	07/07/2019 13:37	WG1307486
n-Propylbenzene	ND		0.00743	1	07/07/2019 13:37	WG1307486
Styrene	ND		0.0186	1	07/07/2019 13:37	WG1307486
1,1,1,2-Tetrachloroethane	ND		0.00371	1	07/07/2019 13:37	WG1307486
1,1,2,2-Tetrachloroethane	ND		0.00371	1	07/07/2019 13:37	WG1307486
1,1,2-Trichlorotrifluoroethane	ND		0.00371	1	07/07/2019 13:37	WG1307486
Tetrachloroethene	ND		0.00371	1	07/07/2019 13:37	WG1307486
Toluene	ND		0.00743	1	07/07/2019 13:37	WG1307486
1,2,3-Trichlorobenzene	ND		0.00371	1	07/07/2019 13:37	WG1307486
1,2,4-Trichlorobenzene	ND		0.0186	1	07/07/2019 13:37	WG1307486
1,1,1-Trichloroethane	ND		0.00371	1	07/07/2019 13:37	WG1307486
1,1,2-Trichloroethane	ND		0.00371	1	07/07/2019 13:37	WG1307486
Trichloroethene	ND		0.00149	1	07/07/2019 13:37	WG1307486
Trichlorofluoromethane	ND		0.00371	1	07/07/2019 13:37	WG1307486
1,2,3-Trichloropropane	ND		0.0186	1	07/07/2019 13:37	WG1307486
1,2,4-Trimethylbenzene	ND		0.00743	1	07/07/2019 13:37	WG1307486
1,2,3-Trimethylbenzene	ND	J4	0.00743	1	07/07/2019 13:37	WG1307486
1,3,5-Trimethylbenzene	ND		0.00743	1	07/07/2019 13:37	WG1307486
Vinyl chloride	ND		0.00371	1	07/07/2019 13:37	WG1307486
Xylenes, Total	ND		0.00965	1	07/07/2019 13:37	WG1307486
(S) Toluene-d8	106		75.0-131		07/07/2019 13:37	WG1307486
(S) 4-Bromofluorobenzene	98.1		67.0-138		07/07/2019 13:37	WG1307486
(S) 1,2-Dichloroethane-d4	96.4		70.0-130		07/07/2019 13:37	WG1307486

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
Total Solids	83.9		1	07/08/2019 13:45	<a href="#">WG1307278</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Mercury	ND		0.0238	1	07/07/2019 16:46	<a href="#">WG1307294</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Arsenic	ND		2.38	1	07/07/2019 20:25	<a href="#">WG1307036</a>
Barium	104		0.596	1	07/07/2019 20:25	<a href="#">WG1307036</a>
Cadmium	ND		0.596	1	07/07/2019 20:25	<a href="#">WG1307036</a>
Chromium	23.6		1.19	1	07/07/2019 20:25	<a href="#">WG1307036</a>
Lead	3.84		0.596	1	07/07/2019 20:25	<a href="#">WG1307036</a>
Selenium	ND		2.38	1	07/07/2019 20:25	<a href="#">WG1307036</a>
Silver	ND		1.19	1	07/07/2019 20:25	<a href="#">WG1307036</a>

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Acetone	ND		0.0352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Acrylonitrile	ND		0.0176	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Benzene	ND		0.00141	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Bromobenzene	ND		0.0176	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Bromodichloromethane	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Bromoform	ND		0.0352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Bromomethane	ND		0.0176	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
n-Butylbenzene	ND		0.0176	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
sec-Butylbenzene	ND		0.0176	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
tert-Butylbenzene	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Carbon tetrachloride	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Chlorobenzene	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Chlorodibromomethane	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Chloroethane	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Chloroform	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Chloromethane	ND		0.0176	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
2-Chlorotoluene	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
4-Chlorotoluene	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,2-Dibromo-3-Chloropropane	ND		0.0352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,2-Dibromoethane	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Dibromomethane	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,2-Dichlorobenzene	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,3-Dichlorobenzene	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,4-Dichlorobenzene	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
Dichlorodifluoromethane	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,1-Dichloroethane	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,2-Dichloroethane	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,1-Dichloroethene	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
cis-1,2-Dichloroethene	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
trans-1,2-Dichloroethene	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,2-Dichloropropane	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,1-Dichloropropene	ND		0.00352	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>
1,3-Dichloropropane	ND		0.00703	1.18	07/07/2019 13:59	<a href="#">WG1307486</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/28/19 14:00

L1114294

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
trans-1,3-Dichloropropene	ND		0.00703	1.18	07/07/2019 13:59	WG1307486
2,2-Dichloropropane	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
Di-isopropyl ether	ND		0.00141	1.18	07/07/2019 13:59	WG1307486
Ethylbenzene	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
Hexachloro-1,3-butadiene	ND		0.0352	1.18	07/07/2019 13:59	WG1307486
Isopropylbenzene	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
p-Isopropyltoluene	ND		0.00703	1.18	07/07/2019 13:59	WG1307486
2-Butanone (MEK)	0.0508	<u>B</u>	0.0352	1.18	07/07/2019 13:59	WG1307486
Methylene Chloride	ND		0.0352	1.18	07/07/2019 13:59	WG1307486
4-Methyl-2-pentanone (MIBK)	ND		0.0352	1.18	07/07/2019 13:59	WG1307486
Methyl tert-butyl ether	ND		0.00141	1.18	07/07/2019 13:59	WG1307486
Naphthalene	ND		0.0176	1.18	07/07/2019 13:59	WG1307486
n-Propylbenzene	ND		0.00703	1.18	07/07/2019 13:59	WG1307486
Styrene	ND		0.0176	1.18	07/07/2019 13:59	WG1307486
1,1,1,2-Tetrachloroethane	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
1,1,2,2-Tetrachloroethane	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
1,1,2-Trichlorotrifluoroethane	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
Tetrachloroethene	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
Toluene	ND		0.00703	1.18	07/07/2019 13:59	WG1307486
1,2,3-Trichlorobenzene	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
1,2,4-Trichlorobenzene	ND		0.0176	1.18	07/07/2019 13:59	WG1307486
1,1,1-Trichloroethane	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
1,1,2-Trichloroethane	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
Trichloroethene	ND		0.00141	1.18	07/07/2019 13:59	WG1307486
Trichlorofluoromethane	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
1,2,3-Trichloropropane	ND		0.0176	1.18	07/07/2019 13:59	WG1307486
1,2,4-Trimethylbenzene	ND		0.00703	1.18	07/07/2019 13:59	WG1307486
1,2,3-Trimethylbenzene	ND	<u>J4</u>	0.00703	1.18	07/07/2019 13:59	WG1307486
1,3,5-Trimethylbenzene	ND		0.00703	1.18	07/07/2019 13:59	WG1307486
Vinyl chloride	ND		0.00352	1.18	07/07/2019 13:59	WG1307486
Xylenes, Total	ND		0.00914	1.18	07/07/2019 13:59	WG1307486
(S) Toluene-d8	106		75.0-131		07/07/2019 13:59	WG1307486
(S) 4-Bromofluorobenzene	97.1		67.0-138		07/07/2019 13:59	WG1307486
(S) 1,2-Dichloroethane-d4	97.3		70.0-130		07/07/2019 13:59	WG1307486

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

Sample Narrative:

L1114294-03 WG1307486: Source of MEK likely from lab contamination rather than from the sample.



Method Blank (MB)

(MB) R3428783-1 07/08/19 14:01

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1114288-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1114288-01 07/08/19 14:01 • (DUP) R3428783-3 07/08/19 14:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	79.7	79.3	1	0.531		10

<sup>7</sup> Gl

<sup>8</sup> Al

Laboratory Control Sample (LCS)

(LCS) R3428783-2 07/08/19 14:01

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3428782-1 07/08/19 13:45

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

L1114299-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1114299-02 07/08/19 13:45 • (DUP) R3428782-3 07/08/19 13:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	81.3	79.4	1	2.34		10

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R3428782-2 07/08/19 13:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

9 Sc



Method Blank (MB)

(MB) R3428238-1 07/07/19 16:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.00280	0.0200

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

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

(LCS) R3428238-2 07/07/19 16:12 • (LCSD) R3428238-3 07/07/19 16:15

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 %
Mercury	0.500	0.545	0.560	109	112	80.0-120			2.80	20

L1114294-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114294-01 07/07/19 16:17 • (MS) R3428238-4 07/07/19 16:20 • (MSD) R3428238-5 07/07/19 16:22

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 %
Mercury	0.698	ND	0.703	0.693	98.3	97.0	1	75.0-125			1.32	20



Method Blank (MB)

(MB) R3428262-1 07/07/19 19:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.460	2.00
Barium	1.18		0.170	0.500
Cadmium	U		0.0700	0.500
Chromium	U		0.140	1.00
Lead	U		0.190	0.500
Selenium	U		0.620	2.00
Silver	U		0.120	1.00



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

(LCS) R3428262-2 07/07/19 19:11 • (LCSD) R3428262-3 07/07/19 19:13

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 %
Arsenic	100	105	103	105	103	80.0-120			1.83	20
Barium	100	114	113	114	113	80.0-120			0.825	20
Cadmium	100	108	106	108	106	80.0-120			1.89	20
Chromium	100	108	105	108	105	80.0-120			2.36	20
Lead	100	107	105	107	105	80.0-120			1.61	20
Selenium	100	106	104	106	104	80.0-120			1.98	20
Silver	20.0	19.9	19.5	99.4	97.6	80.0-120			1.87	20



L1114291-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1114291-11 07/07/19 19:16 • (MS) R3428262-6 07/07/19 19:24 • (MSD) R3428262-7 07/07/19 19:27

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 %
Arsenic	110	1.04	112	106	101	95.7	1	75.0-125			5.21	20
Barium	110	34.9	162	161	115	114	1	75.0-125			0.510	20
Cadmium	110	0.0992	115	110	105	99.7	1	75.0-125			4.67	20
Chromium	110	16.7	132	127	105	100	1	75.0-125			3.63	20
Lead	110	0.983	116	111	105	99.7	1	75.0-125			4.63	20
Selenium	110	U	110	105	100	95.4	1	75.0-125			4.86	20
Silver	22.0	U	21.1	20.1	95.7	91.3	1	75.0-125			4.68	20



Method Blank (MB)

(MB) R3428763-2 07/07/19 12:27

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3428763-2 07/07/19 12:27

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)	0.0287		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	107			75.0-131
(S) 4-Bromofluorobenzene	98.2			67.0-138
(S) 1,2-Dichloroethane-d4	98.5			70.0-130

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3428763-1 07/07/19 11:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.678	108	10.0-160	
Acrylonitrile	0.625	0.651	104	45.0-153	
Benzene	0.125	0.128	102	70.0-123	
Bromobenzene	0.125	0.129	104	73.0-121	
Bromodichloromethane	0.125	0.134	107	73.0-121	



Laboratory Control Sample (LCS)

(LCS) R3428763-1 07/07/19 11:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromoform	0.125	0.140	112	64.0-132	
Bromomethane	0.125	0.133	106	56.0-147	
n-Butylbenzene	0.125	0.122	97.4	68.0-135	
sec-Butylbenzene	0.125	0.124	99.2	74.0-130	
tert-Butylbenzene	0.125	0.125	99.8	75.0-127	
Carbon tetrachloride	0.125	0.132	105	66.0-128	
Chlorobenzene	0.125	0.133	106	76.0-128	
Chlorodibromomethane	0.125	0.132	106	74.0-127	
Chloroethane	0.125	0.131	105	61.0-134	
Chloroform	0.125	0.128	102	72.0-123	
Chloromethane	0.125	0.112	89.3	51.0-138	
2-Chlorotoluene	0.125	0.124	99.2	75.0-124	
4-Chlorotoluene	0.125	0.131	105	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.120	96.1	59.0-130	
1,2-Dibromoethane	0.125	0.142	113	74.0-128	
Dibromomethane	0.125	0.135	108	75.0-122	
1,2-Dichlorobenzene	0.125	0.126	101	76.0-124	
1,3-Dichlorobenzene	0.125	0.131	105	76.0-125	
1,4-Dichlorobenzene	0.125	0.121	96.9	77.0-121	
Dichlorodifluoromethane	0.125	0.185	148	43.0-156	
1,1-Dichloroethane	0.125	0.127	102	70.0-127	
1,2-Dichloroethane	0.125	0.124	98.9	65.0-131	
1,1-Dichloroethene	0.125	0.131	105	65.0-131	
cis-1,2-Dichloroethene	0.125	0.121	97.1	73.0-125	
trans-1,2-Dichloroethene	0.125	0.124	99.1	71.0-125	
1,2-Dichloropropane	0.125	0.131	105	74.0-125	
1,1-Dichloropropene	0.125	0.134	107	73.0-125	
1,3-Dichloropropane	0.125	0.141	113	80.0-125	
cis-1,3-Dichloropropene	0.125	0.136	109	76.0-127	
trans-1,3-Dichloropropene	0.125	0.136	109	73.0-127	
2,2-Dichloropropane	0.125	0.140	112	59.0-135	
Di-isopropyl ether	0.125	0.114	91.5	60.0-136	
Ethylbenzene	0.125	0.131	104	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.122	97.5	57.0-150	
Isopropylbenzene	0.125	0.132	106	72.0-127	
p-Isopropyltoluene	0.125	0.126	101	72.0-133	
2-Butanone (MEK)	0.625	0.710	114	30.0-160	
Methylene Chloride	0.125	0.124	98.9	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.623	99.7	56.0-143	
Methyl tert-butyl ether	0.125	0.127	101	66.0-132	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS)

(LCS) R3428763-1 07/07/19 11:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Naphthalene	0.125	0.111	89.0	59.0-130	
n-Propylbenzene	0.125	0.125	100	74.0-126	
Styrene	0.125	0.130	104	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.132	106	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.138	110	68.0-128	
Tetrachloroethene	0.125	0.140	112	70.0-136	
Toluene	0.125	0.129	103	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.135	108	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.109	87.5	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.117	93.8	62.0-137	
1,1,1-Trichloroethane	0.125	0.130	104	69.0-126	
1,1,2-Trichloroethane	0.125	0.139	111	78.0-123	
Trichloroethene	0.125	0.122	97.3	76.0-126	
Trichlorofluoromethane	0.125	0.137	109	61.0-142	
1,2,3-Trichloropropane	0.125	0.149	119	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.156	125	74.0-124	<u>J4</u>
1,2,4-Trimethylbenzene	0.125	0.128	102	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.123	98.4	73.0-127	
Vinyl chloride	0.125	0.131	105	63.0-134	
Xylenes, Total	0.375	0.390	104	72.0-127	
<i>(S) Toluene-d8</i>			105	75.0-131	
<i>(S) 4-Bromofluorobenzene</i>			98.4	67.0-138	
<i>(S) 1,2-Dichloroethane-d4</i>			102	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> 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.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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.

Qualifier	Description
B	The same analyte is found in the associated blank.
J4	The associated batch QC was outside the established quality control range for accuracy.

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



Pace National 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 Pace National.

## 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 <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	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

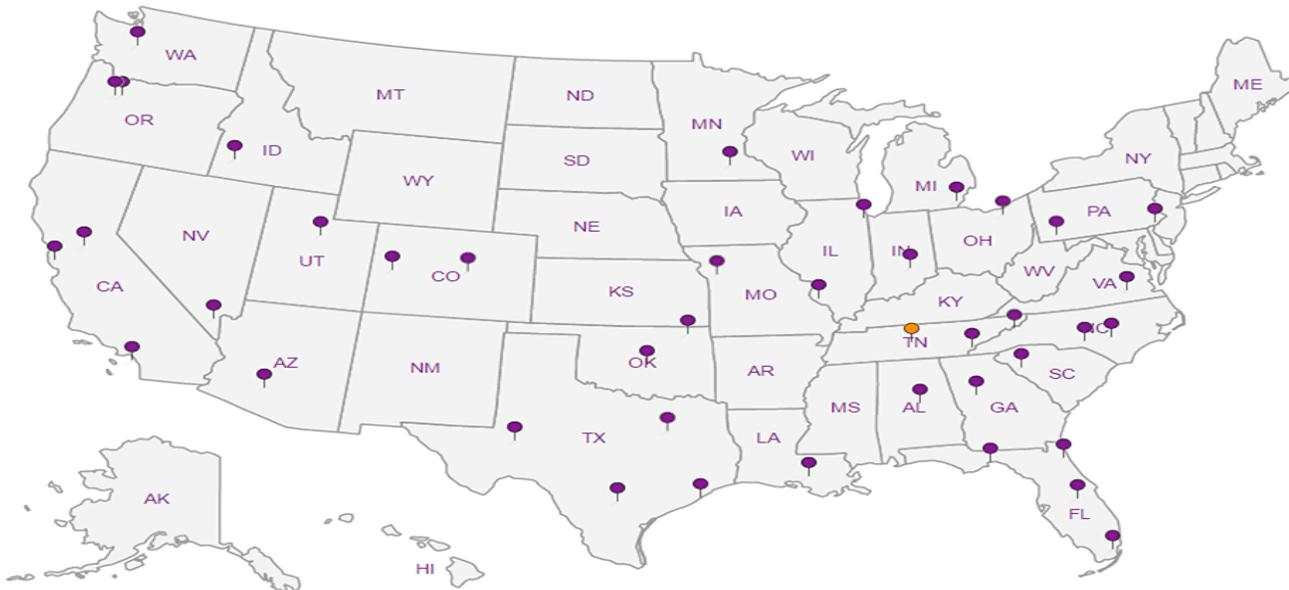
## Third Party Federal Accreditations

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

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National 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. Pace National 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

