



**Nicholson GeoSolutions LLC**

3433 East Lake Drive  
Centennial, CO 80121

June 15, 2016

Mr. Terry Pape  
HRM Resources, LLC  
410 17<sup>th</sup> Street, Suite 1100  
Denver, CO 80202

**Subject: Lipplemann “P” Landfarm Sampling Results  
COGCC Remediation #9058**

Dear Terry:

Nicholson GeoSolutions LLC was retained by HRM Resources II LLC (HRM) to conduct soil sampling of the landfarm on the Lipplemann “P” lease, Washington County, Colorado. Sampling of the landfarm was conducted at the required rate of approximately one sample per 100 yards of material on May 25<sup>th</sup>, 2016. The landfarm was previously sampled on October 18<sup>th</sup>, 2015.

GPS mapping showed that three landfarm cells cover a total of about 0.38 acres and contain an estimated 980 yards of material. Nine discrete soil samples were collected at depths of approximately 12-16 inches from approximately the same locations as those collected in October 2015. Two additional samples (Lipplemann-LF-10 and Lipplemann-LF-11) were collected from material that was recently excavated from the former skim pit at the site after collapse of the shared wall between it and the adjacent evaporation pit. The extent of the landfarm cells and the locations of the samples are shown on Figure 1.

All samples were analyzed for Total Volatile Petroleum Hydrocarbons (TVPH – gasoline range), Total Extractable Petroleum Hydrocarbons (TEPH – diesel and motor oil range), and BTEX (benzene, toluene, ethylbenzene, and xylenes) to evaluate compliance with the COGCC Table 910-1 standards and further treatment needs.

Table 1 provides a summary of the analytical results for the samples. The laboratory report is contained in Appendix A. For the May 2016 sampling event, the sum of the concentrations of gasoline, diesel, and motor oil range petroleum hydrocarbons (total petroleum hydrocarbons [TPH]) exceeded the COGCC standard of 500 mg/kg for all 11 samples and ranged from 558 mg/kg to 65,653.4 mg/kg.

**Table 1 Lippelmann “P” Landfarm Sample Results – May 25, 2016**

	Table 910-1 Standards	Lippelmann LF-1	Lippelmann LF-2	Lippelmann LF-3	Lippelmann LF-4	Lippelmann LF-5
TVPH – gasoline range	500 <sup>1</sup>	<b>3.43</b>	<b>379</b>	<b>14.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
TEPH – diesel/motor oil range	500 <sup>1</sup>	<b>2,316 J</b>	<b>8,510 J</b>	<b>5,980 J</b>	<b>558 J</b>	<b>7,260 J</b>
benzene	0.17	<0.0025 UJ	0.316 J	<0.0025 UJ	<0.0025 UJ	<0.0025 UJ
toluene	85	<0.025	4.36	<0.025	<0.025	<0.025
ethylbenzene	100	0.0137	0.603	0.189	0.00373	<0.0025
xylenes	175	0.0305	4.47	0.024	<0.0075	<0.0075

	Standards	Lippelmann LF-6	Lippelmann LF-7	Lippelmann LF-8	Lippelmann LF-9	Lippelmann LF-10	Lippelmann LF-11
TVPH	500 <sup>1</sup>	<b>&lt;0.5</b>	<b>80.1</b>	<b>4.36</b>	<b>&lt;0.5</b>	<b>53.4</b>	<b>18.9</b>
TEPH	500 <sup>1</sup>	<b>2,022 J</b>	<b>8,800 J</b>	<b>1,479 J</b>	<b>1,079 J</b>	<b>65,600 J</b>	<b>2,430 J</b>
benzene	0.17	<0.0025 UJ	<0.0025 UJ	<0.0025 UJ	<0.0025 UJ	0.0222 J	0.0102 J
toluene	85	<0.025	0.535	<0.025	<0.025	0.0755	0.0458
ethylbenzene	100	<0.0025	0.14	0.0466	<0.0025	0.675	0.28
xylenes	175	<0.0075	1.01	0.0637	<0.0075	0.721	0.268

<sup>1</sup>The standard is 500 for the combined total of TVPH and TEPH All units in mg/kg

J = estimated concentration UJ = estimated detection limit

Values in bold type exceed standards

Table 2 provides the TPH results for the October 18<sup>th</sup>, 2015 and May 25<sup>th</sup>, 2016 samples and the percent difference between the two samples at each sample location that was sampled in both sample events. TPH ranged from 932 mg/kg to 8,160 mg/kg for the October 2015 samples and from 558 mg/kg to 8,889 mg/kg for the May 2016 samples. The TPH concentration was lower for the May 2016 samples at four of the nine sample locations and higher at five locations. The landfarm was thoroughly tilled on two occasions since the last sampling event which may account for the variable concentrations seen.

**Table 2 Comparison of TPH Results, October 18, 2015 and May 25, 2016**

Sample Location	TPH (mg/kg) October 18, 2015	TPH (mg/kg) May 25, 2016	%Difference
Lippelmann-LF-1	932	2,319	148.8
Lippelmann-LF-2	7,351	8,889	20.9
Lippelmann-LF-3	2,339	5,994	156.3
Lippelmann-LF-4	3,155	558	-82.3
Lippelmann-LF-5	4,951	7,260	46.6
Lippelmann-LF-6	2,874	2,022	-29.6
Lippelmann-LF-7	5,840	8,880	52.1
Lippelmann-LF-8	1,582	1,483	-6.3
Lippelmann-LF-9	8,160	1,079	-86.8

Table 3 provides summary statistics for the two sampling events for the nine sample locations sampled during each sample event. The average TPH concentration for the nine samples increased slightly from 4,132 mg/kg to 4,276 mg/kg between October 18<sup>th</sup>, 2015 and May 25<sup>th</sup>, 2016. The median concentration dropped from 3,155 mg/kg to 2,319 mg/kg. Using the results provided above in Table 2, the average % TPH increase for the overall landfarm was 3.5%.

**Table 3      Summary Statistics for the October 2015 and May 2016 Samples**

<b>Sample Date</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>	<b>Median</b>	<b>Average % Difference</b>
Oct 18, 2015	932	8,160	4,132	3,155	
May 25, 2016	558	8,889	4,276	2,319	3.5%

Using these data provides a negative biodegradation rate, a meaningless result. A biodegradation rate will be determined following the collection of the October 2016 samples.

Based on the analytical results, bioremediation of the TPH contained in the soils in the landfarm cells at the Lipplemann "P" lease may be occurring but the results so far are erratic. Additional treatment of the landfarm cells including tilling will be conducted prior to the next sampling event in October 2016.

Nicholson GeoSolutions LLC



David K. Nicholson, P.G.  
Principal Geologist





**APPENDIX A**  
**Laboratory Report**



## HRM Resources, LLC - Denver, CO

Sample Delivery Group: L838239  
Samples Received: 05/27/2016  
Project Number:  
Description: HRM Landfarm Sampling

Report To: Dave Nicholson  
410 17th St., Ste. 1600  
Denver, CO 80202

Entire Report Reviewed By:



Mark W. Beasley  
Technical Service Representative

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



<sup>1</sup> <b>Cp: Cover Page</b>	<b>1</b>
<sup>2</sup> <b>Tc: Table of Contents</b>	<b>2</b>
<sup>3</sup> <b>Ss: Sample Summary</b>	<b>3</b>
<sup>4</sup> <b>Cn: Case Narrative</b>	<b>5</b>
<sup>5</sup> <b>Sr: Sample Results</b>	<b>6</b>
LIPPLEMANN-LF-1 L838239-01	6
LIPPLEMANN-LF-2 L838239-02	7
LIPPLEMANN-LF-3 L838239-03	8
LIPPLEMANN-LF-4 L838239-04	9
LIPPLEMANN-LF-5 L838239-05	10
LIPPLEMANN-LF-6 L838239-06	11
LIPPLEMANN-LF-7 L838239-07	12
LIPPLEMANN-LF-8 L838239-08	13
LIPPLEMANN-LF-9 L838239-09	14
LIPPLEMANN-LF-10 L838239-10	15
LIPPLEMANN-LF-11 L838239-11	16
<sup>6</sup> <b>Qc: Quality Control Summary</b>	<b>17</b>
Volatile Organic Compounds (GC) by Method 8015/8021	17
Volatile Organic Compounds (GC) by Method 8021	21
Semi-Volatile Organic Compounds (GC) by Method 8015	22
<sup>7</sup> <b>Gl: Glossary of Terms</b>	<b>23</b>
<sup>8</sup> <b>Al: Accreditations &amp; Locations</b>	<b>24</b>
<sup>9</sup> <b>Sc: Chain of Custody</b>	<b>25</b>



# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## LIPPLEMANN-LF-1 L838239-01 Solid

			Collected by DK Nicholson	Collected date/time 05/25/16 09:10	Received date/time 05/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	10	05/31/16 21:20	06/01/16 12:16	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 19:07	BMB

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

## LIPPLEMANN-LF-2 L838239-02 Solid

			Collected by DK Nicholson	Collected date/time 05/25/16 09:15	Received date/time 05/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	20	05/31/16 21:20	06/01/16 14:23	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG878140	50	06/06/16 15:46	06/06/16 16:36	ACG

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

## LIPPLEMANN-LF-3 L838239-03 Solid

			Collected by DK Nicholson	Collected date/time 05/25/16 09:20	Received date/time 05/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	20	05/31/16 21:20	06/01/16 14:38	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 19:51	BMB

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

## LIPPLEMANN-LF-4 L838239-04 Solid

			Collected by DK Nicholson	Collected date/time 05/25/16 09:25	Received date/time 05/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	10	05/31/16 21:20	06/01/16 12:01	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 20:13	BMB

## LIPPLEMANN-LF-5 L838239-05 Solid

			Collected by DK Nicholson	Collected date/time 05/25/16 09:28	Received date/time 05/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	50	05/31/16 21:20	06/01/16 15:54	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 20:35	BMB

## LIPPLEMANN-LF-6 L838239-06 Solid

			Collected by DK Nicholson	Collected date/time 05/25/16 09:30	Received date/time 05/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	10	05/31/16 21:20	06/01/16 12:31	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 20:57	BMB

## LIPPLEMANN-LF-7 L838239-07 Solid

			Collected by DK Nicholson	Collected date/time 05/25/16 09:35	Received date/time 05/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	20	05/31/16 21:20	06/01/16 14:52	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG878140	50	06/06/16 15:46	06/06/16 16:57	ACG
Volatile Organic Compounds (GC) by Method 8021	WG878476	50	06/07/16 17:35	06/08/16 01:44	JAH

ACCOUNT:

HRM Resources, LLC - Denver, CO

PROJECT:

SDG:

L838239

DATE/TIME:

06/08/16 12:49

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# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## LIPPLEMANN-LF-8 L838239-08 Solid

Collected by  
DK Nicholson

Collected date/time  
05/25/16 09:40

Received date/time  
05/27/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	10	05/31/16 21:20	06/01/16 12:45	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 21:42	BMB

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

## LIPPLEMANN-LF-9 L838239-09 Solid

Collected by  
DK Nicholson

Collected date/time  
05/25/16 09:48

Received date/time  
05/27/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	10	05/31/16 21:20	06/01/16 11:32	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 22:04	BMB

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

## LIPPLEMANN-LF-10 L838239-10 Solid

Collected by  
DK Nicholson

Collected date/time  
05/25/16 09:50

Received date/time  
05/27/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	200	05/31/16 21:20	06/01/16 16:08	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 23:10	BMB

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

## LIPPLEMANN-LF-11 L838239-11 Solid

Collected by  
DK Nicholson

Collected date/time  
05/25/16 09:55

Received date/time  
05/27/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015	WG876707	20	05/31/16 21:20	06/01/16 15:07	TRF
Volatile Organic Compounds (GC) by Method 8015/8021	WG876834	5	06/03/16 17:35	06/04/16 23:32	BMB

ACCOUNT:

HRM Resources, LLC - Denver, CO

PROJECT:

SDG:

L838239

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

Mark W. Beasley  
Technical Service Representative

<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



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00250	5	06/04/2016 19:07	<a href="#">WG876834</a>
Toluene	ND		0.0250	5	06/04/2016 19:07	<a href="#">WG876834</a>
Ethylbenzene	0.0137		0.00250	5	06/04/2016 19:07	<a href="#">WG876834</a>
Total Xylene	0.0305	<u>B</u>	0.00750	5	06/04/2016 19:07	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	3.43		0.500	5	06/04/2016 19:07	<a href="#">WG876834</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.1		59.0-128		06/04/2016 19:07	<a href="#">WG876834</a>
(S) <i>a,a,a</i> -Trifluorotoluene(PID)	90.2		54.0-144		06/04/2016 19:07	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1430	<u>J3</u>	40.0	10	06/01/2016 12:16	<a href="#">WG876707</a>
C28-C40 Oil Range	886		40.0	10	06/01/2016 12:16	<a href="#">WG876707</a>
(S) <i>o</i> -Terphenyl	25.6	<u>J2</u>	50.0-150		06/01/2016 12:16	<a href="#">WG876707</a>

1  
Cp2  
Tc3  
Ss4  
Cn5  
Sr6  
Qc7  
Gl8  
Al9  
Sc



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.361		0.0250	50	06/06/2016 16:36	<a href="#">WG878140</a>
Toluene	4.36		0.250	50	06/06/2016 16:36	<a href="#">WG878140</a>
Ethylbenzene	0.603		0.0250	50	06/06/2016 16:36	<a href="#">WG878140</a>
Total Xylene	4.47		0.0750	50	06/06/2016 16:36	<a href="#">WG878140</a>
TPH (GC/FID) Low Fraction	379		5.00	50	06/06/2016 16:36	<a href="#">WG878140</a>
(S) a,a,a-Trifluorotoluene(FID)	84.3		59.0-128		06/06/2016 16:36	<a href="#">WG878140</a>
(S) a,a,a-Trifluorotoluene(PID)	103		54.0-144		06/06/2016 16:36	<a href="#">WG878140</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5920	<a href="#">J3</a>	80.0	20	06/01/2016 14:23	<a href="#">WG876707</a>
C28-C40 Oil Range	2590		80.0	20	06/01/2016 14:23	<a href="#">WG876707</a>
(S) o-Terphenyl	0.000	<a href="#">J7</a>	50.0-150		06/01/2016 14:23	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00250	5	06/04/2016 19:51	<a href="#">WG876834</a>
Toluene	ND		0.0250	5	06/04/2016 19:51	<a href="#">WG876834</a>
Ethylbenzene	0.189		0.00250	5	06/04/2016 19:51	<a href="#">WG876834</a>
Total Xylene	0.204		0.00750	5	06/04/2016 19:51	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	14.0		0.500	5	06/04/2016 19:51	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(FID)	97.1		59.0-128		06/04/2016 19:51	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(PID)	89.5		54.0-144		06/04/2016 19:51	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3860	<a href="#">J3</a>	80.0	20	06/01/2016 14:38	<a href="#">WG876707</a>
C28-C40 Oil Range	2120		80.0	20	06/01/2016 14:38	<a href="#">WG876707</a>
(S) o-Terphenyl	0.000	<a href="#">J7</a>	50.0-150		06/01/2016 14:38	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00250	5	06/04/2016 20:13	<a href="#">WG876834</a>
Toluene	ND		0.0250	5	06/04/2016 20:13	<a href="#">WG876834</a>
Ethylbenzene	0.00373		0.00250	5	06/04/2016 20:13	<a href="#">WG876834</a>
Total Xylene	ND	<u>B</u>	0.00750	5	06/04/2016 20:13	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	ND		0.500	5	06/04/2016 20:13	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(FID)	99.7		59.0-128		06/04/2016 20:13	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(PID)	92.8		54.0-144		06/04/2016 20:13	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	338	<u>J3</u>	40.0	10	06/01/2016 12:01	<a href="#">WG876707</a>
C28-C40 Oil Range	220		40.0	10	06/01/2016 12:01	<a href="#">WG876707</a>
(S) o-Terphenyl	70.2		50.0-150		06/01/2016 12:01	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00250	5	06/04/2016 20:35	<a href="#">WG876834</a>
Toluene	ND		0.0250	5	06/04/2016 20:35	<a href="#">WG876834</a>
Ethylbenzene	ND		0.00250	5	06/04/2016 20:35	<a href="#">WG876834</a>
Total Xylene	ND	<u>B</u>	0.00750	5	06/04/2016 20:35	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	ND		0.500	5	06/04/2016 20:35	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(FID)	99.6		59.0-128		06/04/2016 20:35	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(PID)	91.4		54.0-144		06/04/2016 20:35	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4340	<u>J3</u>	200	50	06/01/2016 15:54	<a href="#">WG876707</a>
C28-C40 Oil Range	2920		200	50	06/01/2016 15:54	<a href="#">WG876707</a>
(S) o-Terphenyl	0.000	<u>J7</u>	50.0-150		06/01/2016 15:54	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00250	5	06/04/2016 20:57	<a href="#">WG876834</a>
Toluene	ND		0.0250	5	06/04/2016 20:57	<a href="#">WG876834</a>
Ethylbenzene	ND		0.00250	5	06/04/2016 20:57	<a href="#">WG876834</a>
Total Xylene	ND		0.00750	5	06/04/2016 20:57	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	ND		0.500	5	06/04/2016 20:57	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(FID)	99.6		59.0-128		06/04/2016 20:57	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(PID)	91.9		54.0-144		06/04/2016 20:57	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1210	<a href="#">J3</a>	40.0	10	06/01/2016 12:31	<a href="#">WG876707</a>
C28-C40 Oil Range	812		40.0	10	06/01/2016 12:31	<a href="#">WG876707</a>
(S) o-Terphenyl	41.8	<a href="#">J2</a>	50.0-150		06/01/2016 12:31	<a href="#">WG876707</a>

1  
Cp2  
Tc3  
Ss4  
Cn5  
Sr6  
Qc7  
Gl8  
Al9  
Sc



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.0250	50	06/08/2016 01:44	<a href="#">WG878476</a>
Toluene	0.535		0.250	50	06/06/2016 16:57	<a href="#">WG878140</a>
Ethylbenzene	0.140		0.0250	50	06/06/2016 16:57	<a href="#">WG878140</a>
Total Xylene	1.01		0.0750	50	06/06/2016 16:57	<a href="#">WG878140</a>
TPH (GC/FID) Low Fraction	80.1		5.00	50	06/06/2016 16:57	<a href="#">WG878140</a>
(S) a,a,a-Trifluorotoluene(FID)	102		59.0-128		06/06/2016 16:57	<a href="#">WG878140</a>
(S) a,a,a-Trifluorotoluene(FID)	102		59.0-128		06/08/2016 01:44	<a href="#">WG878476</a>
(S) a,a,a-Trifluorotoluene(PID)	107		54.0-144		06/08/2016 01:44	<a href="#">WG878476</a>
(S) a,a,a-Trifluorotoluene(PID)	108		54.0-144		06/06/2016 16:57	<a href="#">WG878140</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5720	<a href="#">J3</a>	80.0	20	06/01/2016 14:52	<a href="#">WG876707</a>
C28-C40 Oil Range	3080		80.0	20	06/01/2016 14:52	<a href="#">WG876707</a>
(S) o-Terphenyl	0.000	<a href="#">J7</a>	50.0-150		06/01/2016 14:52	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00250	5	06/04/2016 21:42	<a href="#">WG876834</a>
Toluene	ND		0.0250	5	06/04/2016 21:42	<a href="#">WG876834</a>
Ethylbenzene	0.0466		0.00250	5	06/04/2016 21:42	<a href="#">WG876834</a>
Total Xylene	0.0637		0.00750	5	06/04/2016 21:42	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	4.16		0.500	5	06/04/2016 21:42	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(FID)	95.3		59.0-128		06/04/2016 21:42	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(PID)	88.2		54.0-144		06/04/2016 21:42	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	876	<a href="#">J3</a>	40.0	10	06/01/2016 12:45	<a href="#">WG876707</a>
C28-C40 Oil Range	603		40.0	10	06/01/2016 12:45	<a href="#">WG876707</a>
(S) o-Terphenyl	81.0		50.0-150		06/01/2016 12:45	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00250	5	06/04/2016 22:04	<a href="#">WG876834</a>
Toluene	ND		0.0250	5	06/04/2016 22:04	<a href="#">WG876834</a>
Ethylbenzene	ND		0.00250	5	06/04/2016 22:04	<a href="#">WG876834</a>
Total Xylene	ND	<u>B</u>	0.00750	5	06/04/2016 22:04	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	ND		0.500	5	06/04/2016 22:04	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(FID)	97.9		59.0-128		06/04/2016 22:04	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(PID)	90.6		54.0-144		06/04/2016 22:04	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	710	<u>J3</u>	40.0	10	06/01/2016 11:32	<a href="#">WG876707</a>
C28-C40 Oil Range	369		40.0	10	06/01/2016 11:32	<a href="#">WG876707</a>
(S) o-Terphenyl	78.8		50.0-150		06/01/2016 11:32	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.0222		0.00250	5	06/04/2016 23:10	<a href="#">WG876834</a>
Toluene	0.0755		0.0250	5	06/04/2016 23:10	<a href="#">WG876834</a>
Ethylbenzene	0.675		0.00250	5	06/04/2016 23:10	<a href="#">WG876834</a>
Total Xylene	0.721		0.00750	5	06/04/2016 23:10	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	53.4		0.500	5	06/04/2016 23:10	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(FID)	70.4		59.0-128		06/04/2016 23:10	<a href="#">WG876834</a>
(S) a,a,a-Trifluorotoluene(PID)	82.7		54.0-144		06/04/2016 23:10	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	42400	<a href="#">J3</a>	800	200	06/01/2016 16:08	<a href="#">WG876707</a>
C28-C40 Oil Range	23200		800	200	06/01/2016 16:08	<a href="#">WG876707</a>
(S) o-Terphenyl	0.000	<a href="#">J7</a>	50.0-150		06/01/2016 16:08	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.0102		0.00250	5	06/04/2016 23:32	<a href="#">WG876834</a>
Toluene	0.0458		0.0250	5	06/04/2016 23:32	<a href="#">WG876834</a>
Ethylbenzene	0.280		0.00250	5	06/04/2016 23:32	<a href="#">WG876834</a>
Total Xylene	0.268		0.00750	5	06/04/2016 23:32	<a href="#">WG876834</a>
TPH (GC/FID) Low Fraction	18.9		0.500	5	06/04/2016 23:32	<a href="#">WG876834</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	85.8		59.0-128		06/04/2016 23:32	<a href="#">WG876834</a>
(S) <i>a,a,a</i> -Trifluorotoluene(PID)	89.3		54.0-144		06/04/2016 23:32	<a href="#">WG876834</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1070	<a href="#">J3</a>	80.0	20	06/01/2016 15:07	<a href="#">WG876707</a>
C28-C40 Oil Range	1360		80.0	20	06/01/2016 15:07	<a href="#">WG876707</a>
(S) <i>o</i> -Terphenyl	0.000	<a href="#">J7</a>	50.0-150		06/01/2016 15:07	<a href="#">WG876707</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3141618-5 06/04/16 15:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000156	J	0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID) 101			59.0-128	
(S) a,a,a-Trifluorotoluene(PID) 93.0			54.0-144	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3141618-1 06/04/16 12:55 • (LCSD) R3141618-2 06/04/16 13:18

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 %
Benzene	0.0500	0.0513	0.0491	103	98.1	70.0-130			4.52	20
Toluene	0.0500	0.0507	0.0481	101	96.2	70.0-130			5.23	20
Ethylbenzene	0.0500	0.0532	0.0509	106	102	70.0-130			4.55	20
Total Xylene	0.150	0.164	0.156	109	104	70.0-130			4.96	20
(S) a,a,a-Trifluorotoluene(FID)				101	101	59.0-128				
(S) a,a,a-Trifluorotoluene(PID)				103	103	54.0-144				

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

(LCS) R3141618-3 06/04/16 13:40 • (LCSD) R3141618-4 06/04/16 14:02

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 %
TPH (GC/FID) Low Fraction	5.50	5.89	5.72	107	104	63.5-137			2.94	20
(S) a,a,a-Trifluorotoluene(FID)				102	102	59.0-128				
(S) a,a,a-Trifluorotoluene(PID)				111	111	54.0-144				

L838237-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L838237-01 06/04/16 17:39 • (MS) R3141618-6 06/04/16 15:49 • (MSD) R3141618-7 06/04/16 16:11

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 %
Benzene	0.0500	ND	0.221	0.207	88.3	82.8	5	49.7-127			6.44	23.5
Toluene	0.0500	ND	0.211	0.188	84.3	75.1	5	49.8-132			11.5	23.5
Ethylbenzene	0.0500	ND	0.210	0.173	83.9	69.2	5	40.8-141			19.3	23.8
Total Xylene	0.150	ND	0.657	0.549	87.6	73.2	5	41.2-140			17.9	23.7
(S) a,a,a-Trifluorotoluene(FID)					98.8	98.1		59.0-128				

L838237-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L838237-01 06/04/16 17:39 • (MS) R3141618-6 06/04/16 15:49 • (MSD) R3141618-7 06/04/16 16:11

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
(S) a,a,a-Trifluorotoluene(PID)					100	98.7		54.0-144				

L838237-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L838237-01 06/04/16 17:39 • (MS) R3141618-8 06/04/16 16:33 • (MSD) R3141618-9 06/04/16 16:55

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
TPH (GC/FID) Low Fraction	5.50	ND	20.4	19.2	74.2	69.8	5	28.5-138			6.16	23.6
(S) a,a,a-Trifluorotoluene(FID)					99.2	98.5		59.0-128				
(S) a,a,a-Trifluorotoluene(PID)					108	107		54.0-144				

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc





Method Blank (MB)

(MB) R3141979-5 06/06/16 12:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	U		0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID) 105			59.0-128	
(S) a,a,a-Trifluorotoluene(PID) 107			54.0-144	

<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) R3141979-1 06/06/16 11:07 • (LCSD) R3141979-2 06/06/16 11:28

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 %
Benzene	0.0500	0.0488	0.0497	97.6	99.5	70.0-130			1.90	20
Toluene	0.0500	0.0526	0.0531	105	106	70.0-130			1.01	20
Ethylbenzene	0.0500	0.0535	0.0544	107	109	70.0-130			1.81	20
Total Xylene	0.150	0.164	0.167	110	111	70.0-130			1.68	20
(S) a,a,a-Trifluorotoluene(PID)				107	107	54.0-144				

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

(LCS) R3141979-3 06/06/16 11:49 • (LCSD) R3141979-4 06/06/16 12:10

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 %
TPH (GC/FID) Low Fraction	5.50	5.57	5.60	101	102	63.5-137			0.500	20
(S) a,a,a-Trifluorotoluene(FID)				104	103	59.0-128				

L839414-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L839414-03 06/06/16 19:44 • (MS) R3141979-6 06/06/16 20:04 • (MSD) R3141979-7 06/06/16 20:25

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 %
TPH (GC/FID) Low Fraction	5.99	1.70	19.1	16.8	58.2	50.2	5	28.5-138			13.3	23.6
(S) a,a,a-Trifluorotoluene(FID)					100	101		59.0-128				

L839414-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L839414-03 06/06/16 19:44 • (MS) R3141979-8 06/06/16 20:46 • (MSD) R3141979-9 06/06/16 21:07

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 %
Benzene	0.0545	0.0254	0.212	0.210	68.4	67.7	5	49.7-127			1.00	23.5
Toluene	0.0545	0.0768	0.241	0.229	60.3	55.9	5	49.8-132			5.14	23.5
Ethylbenzene	0.0545	0.0736	0.217	0.200	52.7	46.6	5	40.8-141			8.01	23.8
Total Xylene	0.163	0.280	0.689	0.637	50.1	43.6	5	41.2-140		J6	7.93	23.7
(S) o,a,a-Trifluorotoluene(PID)					106	106		54.0-144				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3142224-5 06/07/16 22:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
(S) a,a,a-Trifluorotoluene(FID)	103			59.0-128
(S) a,a,a-Trifluorotoluene(PID)	107			54.0-144

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

(LCS) R3142224-1 06/07/16 20:59 • (LCSD) R3142224-2 06/07/16 21:23

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 %
Benzene	0.0500	0.0468	0.0471	93.5	94.3	70.0-130			0.810	20
(S) a,a,a-Trifluorotoluene(FID)				103	103	59.0-128				
(S) a,a,a-Trifluorotoluene(PID)				105	105	54.0-144				

L839770-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L839770-04 06/08/16 07:15 • (MS) R3142224-6 06/07/16 23:45 • (MSD) R3142224-7 06/08/16 00:08

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 %
Benzene	0.0750	U	0.0261	0.0257	34.8	34.3	1	49.7-127	J6	J6	1.38	23.5
(S) a,a,a-Trifluorotoluene(FID)					103	103		59.0-128				
(S) a,a,a-Trifluorotoluene(PID)					105	105		54.0-144				

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



Method Blank (MB)

(MB) R3141061-1 06/01/16 09:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	63.9			50.0-150

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

(LCS) R3141061-2 06/01/16 09:20 • (LCSD) R3141061-3 06/01/16 09:34

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 %
C10-C28 Diesel Range	60.0	38.6	49.3	64.3	82.2	50.0-150		J3	24.4	20
(S) o-Terphenyl				67.8	85.4	50.0-150				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



## Abbreviations and Definitions

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

## Qualifier      Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

<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



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

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

## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
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>n/a</sup> 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.**



