

October 09, 2019

<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

## Laramie Energy - Grand Junction, CO

Sample Delivery Group: L1145175

Samples Received: 10/02/2019

Project Number:

Description: Kobe Flange-Soil

Report To: Matt Kasten

760 Horizon Dr., Ste. 101

Grand Junction, CO 81506

Entire Report Reviewed By:

*Chris Ward*

Chris Ward

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 Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## KOBE FLANGE-POR L1145175-01 Solid

Collected by  
Matt Kasten

Collected date/time  
10/01/19 11:45

Received date/time  
10/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1357830	1	10/08/19 02:20	10/08/19 02:20	TRB	Mt. Juliet, TN
Calculated Results	WG1357657	1	10/04/19 17:03	10/05/19 15:25	CCE	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1356624	1	10/04/19 08:54	10/04/19 18:13	JIC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1356666	1	10/03/19 11:08	10/03/19 13:00	EEM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1355946	1	10/02/19 18:59	10/02/19 21:36	AKA	Mt. Juliet, TN
Mercury by Method 7471A	WG1357532	1	10/07/19 14:13	10/07/19 17:59	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1357657	1	10/04/19 17:03	10/05/19 15:25	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1358778	50	10/03/19 15:57	10/07/19 17:55	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1358846	1	10/03/19 15:57	10/07/19 21:50	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1359045	8	10/03/19 15:57	10/08/19 20:28	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1357725	5	10/04/19 20:22	10/05/19 17:44	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1357820	1	10/04/19 22:58	10/05/19 09:38	LEA	Mt. Juliet, TN

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

## KOBE FLANGE-DRAIN S1 L1145175-02 Solid

Collected by  
Matt Kasten

Collected date/time  
10/01/19 11:50

Received date/time  
10/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1357830	1	10/08/19 02:23	10/08/19 02:23	TRB	Mt. Juliet, TN
Calculated Results	WG1357657	1	10/04/19 17:03	10/05/19 15:28	CCE	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1356624	1	10/04/19 08:54	10/04/19 18:13	JIC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1356666	1	10/03/19 11:08	10/03/19 13:00	EEM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1355946	1	10/02/19 18:59	10/02/19 21:36	AKA	Mt. Juliet, TN
Mercury by Method 7471A	WG1357532	1	10/07/19 14:13	10/07/19 18:01	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1357657	1	10/04/19 17:03	10/05/19 15:28	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1358778	25	10/03/19 15:57	10/07/19 18:19	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1358846	1	10/03/19 15:57	10/07/19 22:09	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1357725	1	10/04/19 20:22	10/05/19 15:37	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1357820	1	10/04/19 22:58	10/05/19 09:59	LEA	Mt. Juliet, TN

## KOBE FLANGE-DRAIN S2 L1145175-03 Solid

Collected by  
Matt Kasten

Collected date/time  
10/01/19 11:55

Received date/time  
10/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1357830	1	10/08/19 02:26	10/08/19 02:26	TRB	Mt. Juliet, TN
Calculated Results	WG1357657	1	10/04/19 17:03	10/05/19 15:31	CCE	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1356624	1	10/04/19 08:54	10/04/19 18:14	JIC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1357778	1	10/07/19 08:54	10/07/19 10:10	EEM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1355946	1	10/02/19 18:59	10/02/19 21:36	AKA	Mt. Juliet, TN
Mercury by Method 7471A	WG1357532	1	10/07/19 14:13	10/07/19 18:04	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1357657	1	10/04/19 17:03	10/05/19 15:31	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1358296	1	10/03/19 15:57	10/06/19 17:58	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1358846	1	10/03/19 15:57	10/07/19 22:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1357725	10	10/04/19 20:22	10/05/19 17:19	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1357820	1	10/04/19 22:58	10/05/19 12:49	LEA	Mt. Juliet, TN

## KOBE FLANGE-DRAIN N1 L1145175-04 Solid

Collected by  
Matt Kasten

Collected date/time  
10/01/19 12:00

Received date/time  
10/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1357830	1	10/07/19 17:26	10/07/19 17:26	EL	Mt. Juliet, TN
Calculated Results	WG1357657	1	10/04/19 17:03	10/05/19 15:33	CCE	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1356624	1	10/04/19 08:54	10/04/19 18:14	JIC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1356940	1	10/03/19 16:01	10/03/19 23:00	EEM	Mt. Juliet, TN

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# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## KOBE FLANGE-DRAIN N1 L1145175-04 Solid

Collected by  
Matt Kasten

Collected date/time  
10/01/19 12:00

Received date/time  
10/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9050AMod	WG1355946	1	10/02/19 18:59	10/02/19 21:36	AKA	Mt. Juliet, TN
Mercury by Method 7471A	WG1357532	1	10/07/19 14:13	10/07/19 18:06	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1357657	1	10/04/19 17:03	10/05/19 15:33	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1358778	1	10/03/19 15:57	10/07/19 17:31	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1358846	1	10/03/19 15:57	10/07/19 22:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1357725	50	10/04/19 20:22	10/05/19 17:32	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1357820	1	10/04/19 22:58	10/05/19 13:53	LEA	Mt. Juliet, TN

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

## KOBE FLANGE-DRAIN S3 L1145175-05 Solid

Collected by  
Matt Kasten

Collected date/time  
10/01/19 12:05

Received date/time  
10/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1357830	1	10/07/19 17:29	10/07/19 17:29	EL	Mt. Juliet, TN
Calculated Results	WG1357657	1	10/04/19 17:03	10/05/19 15:41	CCE	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1356624	1	10/04/19 08:54	10/04/19 18:14	JIC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1356940	1	10/03/19 16:01	10/03/19 23:00	EEM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1355946	1	10/02/19 18:59	10/02/19 21:36	AKA	Mt. Juliet, TN
Mercury by Method 7471A	WG1357532	1	10/07/19 14:13	10/07/19 18:09	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1357657	1	10/04/19 17:03	10/05/19 15:41	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1358296	1	10/03/19 15:57	10/06/19 18:42	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1358847	1	10/03/19 15:57	10/08/19 01:52	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1357725	1	10/04/19 20:22	10/05/19 15:50	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1357820	1	10/04/19 22:58	10/05/19 10:20	LEA	Mt. Juliet, TN

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

## KOBE FLANGE-DRAIN N2 L1145175-06 Solid

Collected by  
Matt Kasten

Collected date/time  
10/01/19 12:20

Received date/time  
10/02/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1357830	1	10/08/19 07:50	10/08/19 07:50	JDG	Mt. Juliet, TN
Calculated Results	WG1357657	1	10/04/19 17:03	10/05/19 15:44	CCE	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1356624	1	10/04/19 08:54	10/04/19 18:15	JIC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1356940	1	10/03/19 16:01	10/03/19 23:00	EEM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1355946	1	10/02/19 18:59	10/02/19 21:36	AKA	Mt. Juliet, TN
Mercury by Method 7471A	WG1357532	1	10/07/19 14:13	10/07/19 18:12	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1357657	1	10/04/19 17:03	10/05/19 15:44	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1358296	1	10/03/19 15:57	10/06/19 19:35	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1358847	1	10/03/19 15:57	10/08/19 02:10	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1357725	1	10/04/19 20:22	10/05/19 16:03	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1357820	1	10/04/19 22:58	10/05/19 10:42	LEA	Mt. Juliet, TN

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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, 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.

Chris Ward  
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



## Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	41.6		1	10/08/2019 02:20	WG1357830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	9.86		1.00	1	10/05/2019 15:25	<a href="#">WG1357657</a>

## Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/04/2019 18:13	<a href="#">WG1356624</a>

## Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.64	<a href="#">T8</a>	1	10/03/2019 13:00	<a href="#">WG1356666</a>

## Sample Narrative:

L1145175-01 WG1356666: 7.64 at 25.7C

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	14800		10.0	1	10/02/2019 21:36	<a href="#">WG1355946</a>

## Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0511		0.0300	1	10/07/2019 17:59	<a href="#">WG1357532</a>

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.02		2.00	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Barium	300		0.500	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Cadmium	ND		0.500	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Chromium	9.86		1.00	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Copper	10.4		2.00	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Lead	6.79		0.500	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Nickel	9.28		2.00	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Selenium	ND		2.00	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Silver	ND		1.00	1	10/05/2019 15:25	<a href="#">WG1357657</a>
Zinc	40.2		5.00	1	10/05/2019 15:25	<a href="#">WG1357657</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	254		5.00	50	10/07/2019 17:55	<a href="#">WG1358778</a>
(S) a,a,a-Trifluorotoluene(FID)	95.6		77.0-120		10/07/2019 17:55	<a href="#">WG1358778</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00263		0.00100	1	10/07/2019 21:50	<a href="#">WG1358846</a>
Toluene	0.389		0.00500	1	10/07/2019 21:50	<a href="#">WG1358846</a>
Ethylbenzene	0.326		0.00250	1	10/07/2019 21:50	<a href="#">WG1358846</a>
Total Xylenes	13.5		0.0520	8	10/08/2019 20:28	<a href="#">WG1359045</a>
Methyl tert-butyl ether	ND	<a href="#">J4</a>	0.00100	1	10/07/2019 21:50	<a href="#">WG1358846</a>
(S) Toluene-d8	94.9		75.0-131		10/07/2019 21:50	<a href="#">WG1358846</a>
(S) Toluene-d8	103		75.0-131		10/08/2019 20:28	<a href="#">WG1359045</a>
(S) 4-Bromofluorobenzene	158	<a href="#">J1</a>	67.0-138		10/07/2019 21:50	<a href="#">WG1358846</a>
(S) 4-Bromofluorobenzene	107		67.0-138		10/08/2019 20:28	<a href="#">WG1359045</a>
(S) 1,2-Dichloroethane-d4	92.9		70.0-130		10/07/2019 21:50	<a href="#">WG1358846</a>
(S) 1,2-Dichloroethane-d4	98.3		70.0-130		10/08/2019 20:28	<a href="#">WG1359045</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	134	<a href="#">J3 J5</a>	20.0	5	10/05/2019 17:44	<a href="#">WG1357725</a>
(S) o-Terphenyl	66.1		18.0-148		10/05/2019 17:44	<a href="#">WG1357725</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Acenaphthene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Acenaphthylene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Benzo(a)anthracene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Benzo(a)pyrene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Benzo(b)fluoranthene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Benzo(g,h,i)perylene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Benzo(k)fluoranthene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Chrysene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Dibenz(a,h)anthracene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Fluoranthene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Fluorene	0.0183		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Naphthalene	0.228		0.0200	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Phenanthrene	0.0257		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
Pyrene	0.00631		0.00600	1	10/05/2019 09:38	<a href="#">WG1357820</a>
1-Methylnaphthalene	0.243		0.0200	1	10/05/2019 09:38	<a href="#">WG1357820</a>
2-Methylnaphthalene	0.573		0.0200	1	10/05/2019 09:38	<a href="#">WG1357820</a>
2-Chloronaphthalene	ND		0.0200	1	10/05/2019 09:38	<a href="#">WG1357820</a>
(S) p-Terphenyl-d14	85.7		23.0-120		10/05/2019 09:38	<a href="#">WG1357820</a>
(S) Nitrobenzene-d5	234	<a href="#">J1</a>	14.0-149		10/05/2019 09:38	<a href="#">WG1357820</a>
(S) 2-Fluorobiphenyl	91.4		34.0-125		10/05/2019 09:38	<a href="#">WG1357820</a>

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



## Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	50.8		1	10/08/2019 02:23	WG1357830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	9.32		1.00	1	10/05/2019 15:28	<a href="#">WG1357657</a>

## Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/04/2019 18:13	<a href="#">WG1356624</a>

## Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.08	<a href="#">T8</a>	1	10/03/2019 13:00	<a href="#">WG1356666</a>

## Sample Narrative:

L1145175-02 WG1356666: 8.08 at 25.5C

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	6080		10.0	1	10/02/2019 21:36	<a href="#">WG1355946</a>

## Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0300	1	10/07/2019 18:01	<a href="#">WG1357532</a>

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.74		2.00	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Barium	326		0.500	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Cadmium	ND		0.500	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Chromium	9.32		1.00	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Copper	9.38		2.00	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Lead	6.44		0.500	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Nickel	9.12		2.00	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Selenium	ND		2.00	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Silver	ND		1.00	1	10/05/2019 15:28	<a href="#">WG1357657</a>
Zinc	30.1		5.00	1	10/05/2019 15:28	<a href="#">WG1357657</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	42.3		2.50	25	10/07/2019 18:19	<a href="#">WG1358778</a>
(S) a,a,a-Trifluorotoluene(FID)	96.7		77.0-120		10/07/2019 18:19	<a href="#">WG1358778</a>





## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00145		0.00100	1	10/07/2019 22:09	<a href="#">WG1358846</a>
Toluene	0.123		0.00500	1	10/07/2019 22:09	<a href="#">WG1358846</a>
Ethylbenzene	0.0518		0.00250	1	10/07/2019 22:09	<a href="#">WG1358846</a>
Total Xylenes	1.49		0.00650	1	10/07/2019 22:09	<a href="#">WG1358846</a>
Methyl tert-butyl ether	ND	<a href="#">J4</a>	0.00100	1	10/07/2019 22:09	<a href="#">WG1358846</a>
(S) Toluene-d8	105		75.0-131		10/07/2019 22:09	<a href="#">WG1358846</a>
(S) 4-Bromofluorobenzene	103		67.0-138		10/07/2019 22:09	<a href="#">WG1358846</a>
(S) 1,2-Dichloroethane-d4	91.3		70.0-130		10/07/2019 22:09	<a href="#">WG1358846</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	16.5		4.00	1	10/05/2019 15:37	<a href="#">WG1357725</a>
(S) o-Terphenyl	66.8		18.0-148		10/05/2019 15:37	<a href="#">WG1357725</a>

6 Qc

7 Gl

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Acenaphthene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Acenaphthylene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Benzo(a)anthracene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Benzo(a)pyrene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Benzo(b)fluoranthene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Benzo(g,h,i)perylene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Benzo(k)fluoranthene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Chrysene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Dibenz(a,h)anthracene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Fluoranthene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Fluorene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Naphthalene	0.0304		0.0200	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Phenanthrene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
Pyrene	ND		0.00600	1	10/05/2019 09:59	<a href="#">WG1357820</a>
1-Methylnaphthalene	ND		0.0200	1	10/05/2019 09:59	<a href="#">WG1357820</a>
2-Methylnaphthalene	0.0328		0.0200	1	10/05/2019 09:59	<a href="#">WG1357820</a>
2-Chloronaphthalene	ND		0.0200	1	10/05/2019 09:59	<a href="#">WG1357820</a>
(S) p-Terphenyl-d14	82.0		23.0-120		10/05/2019 09:59	<a href="#">WG1357820</a>
(S) Nitrobenzene-d5	103		14.0-149		10/05/2019 09:59	<a href="#">WG1357820</a>
(S) 2-Fluorobiphenyl	85.8		34.0-125		10/05/2019 09:59	<a href="#">WG1357820</a>

8 Al

9 Sc



## Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	52.6		1	10/08/2019 02:26	WG1357830

## Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	6.96		1.00	1	10/05/2019 15:31	<a href="#">WG1357657</a>

## Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/04/2019 18:14	<a href="#">WG1356624</a>

## Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.11	<a href="#">T8</a>	1	10/07/2019 10:10	<a href="#">WG1357778</a>

## Sample Narrative:

L1145175-03 WG1357778: 8.11 at 22.3C

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	12400		10.0	1	10/02/2019 21:36	<a href="#">WG1355946</a>

## Mercury by Method 7471A

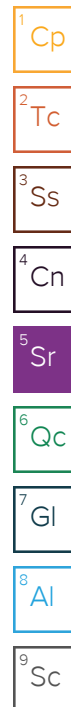
Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0300	1	10/07/2019 18:04	<a href="#">WG1357532</a>

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.73		2.00	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Barium	199		0.500	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Cadmium	ND		0.500	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Chromium	6.96		1.00	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Copper	6.17		2.00	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Lead	4.32		0.500	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Nickel	6.44		2.00	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Selenium	ND		2.00	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Silver	ND		1.00	1	10/05/2019 15:31	<a href="#">WG1357657</a>
Zinc	26.3		5.00	1	10/05/2019 15:31	<a href="#">WG1357657</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	7.43		0.100	1	10/06/2019 17:58	<a href="#">WG1358296</a>
(S) a,a,a-Trifluorotoluene(FID)	96.2		77.0-120		10/06/2019 17:58	<a href="#">WG1358296</a>





Collected date/time: 10/01/19 11:55

L1145175

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00165		0.00100	1	10/07/2019 22:27	<a href="#">WG1358846</a>
Toluene	0.131		0.00500	1	10/07/2019 22:27	<a href="#">WG1358846</a>
Ethylbenzene	0.0718		0.00250	1	10/07/2019 22:27	<a href="#">WG1358846</a>
Total Xylenes	2.02		0.00650	1	10/07/2019 22:27	<a href="#">WG1358846</a>
Methyl tert-butyl ether	ND	<a href="#">J4</a>	0.00100	1	10/07/2019 22:27	<a href="#">WG1358846</a>
(S) Toluene-d8	106		75.0-131		10/07/2019 22:27	<a href="#">WG1358846</a>
(S) 4-Bromofluorobenzene	107		67.0-138		10/07/2019 22:27	<a href="#">WG1358846</a>
(S) 1,2-Dichloroethane-d4	89.9		70.0-130		10/07/2019 22:27	<a href="#">WG1358846</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	45.3		40.0	10	10/05/2019 17:19	<a href="#">WG1357725</a>
(S) o-Terphenyl	104		18.0-148		10/05/2019 17:19	<a href="#">WG1357725</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Acenaphthene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Acenaphthylene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Benzo(a)anthracene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Benzo(a)pyrene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Benzo(b)fluoranthene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Benzo(g,h,i)perylene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Benzo(k)fluoranthene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Chrysene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Dibenz(a,h)anthracene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Fluoranthene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Fluorene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Naphthalene	0.0760		0.0200	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Phenanthrene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
Pyrene	ND		0.00600	1	10/05/2019 12:49	<a href="#">WG1357820</a>
1-Methylnaphthalene	0.0557		0.0200	1	10/05/2019 12:49	<a href="#">WG1357820</a>
2-Methylnaphthalene	0.128		0.0200	1	10/05/2019 12:49	<a href="#">WG1357820</a>
2-Chloronaphthalene	ND		0.0200	1	10/05/2019 12:49	<a href="#">WG1357820</a>
(S) p-Terphenyl-d14	79.7		23.0-120		10/05/2019 12:49	<a href="#">WG1357820</a>
(S) Nitrobenzene-d5	111		14.0-149		10/05/2019 12:49	<a href="#">WG1357820</a>
(S) 2-Fluorobiphenyl	92.5		34.0-125		10/05/2019 12:49	<a href="#">WG1357820</a>



## Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	35.2		1	10/07/2019 17:26	WG1357830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	9.11		1.00	1	10/05/2019 15:33	<a href="#">WG1357657</a>

## Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/04/2019 18:14	<a href="#">WG1356624</a>

## Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.81	<a href="#">T8</a>	1	10/03/2019 23:00	<a href="#">WG1356940</a>

## Sample Narrative:

L1145175-04 WG1356940: 7.81 at 23.2C

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	10000		10.0	1	10/02/2019 21:36	<a href="#">WG1355946</a>

## Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0300	1	10/07/2019 18:06	<a href="#">WG1357532</a>

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.33		2.00	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Barium	294		0.500	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Cadmium	ND		0.500	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Chromium	9.11		1.00	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Copper	9.07		2.00	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Lead	6.93		0.500	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Nickel	13.3		2.00	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Selenium	ND		2.00	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Silver	ND		1.00	1	10/05/2019 15:33	<a href="#">WG1357657</a>
Zinc	29.3		5.00	1	10/05/2019 15:33	<a href="#">WG1357657</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.458		0.100	1	10/07/2019 17:31	<a href="#">WG1358778</a>
(S) a,a,a-Trifluorotoluene(FID)	92.8		77.0-120		10/07/2019 17:31	<a href="#">WG1358778</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/07/2019 22:46	<a href="#">WG1358846</a>
Toluene	0.0279		0.00500	1	10/07/2019 22:46	<a href="#">WG1358846</a>
Ethylbenzene	0.0173		0.00250	1	10/07/2019 22:46	<a href="#">WG1358846</a>
Total Xylenes	0.500	<a href="#">J5</a>	0.00650	1	10/07/2019 22:46	<a href="#">WG1358846</a>
Methyl tert-butyl ether	ND	<a href="#">J4</a>	0.00100	1	10/07/2019 22:46	<a href="#">WG1358846</a>
(S) Toluene-d8	110		75.0-131		10/07/2019 22:46	<a href="#">WG1358846</a>
(S) 4-Bromofluorobenzene	91.2		67.0-138		10/07/2019 22:46	<a href="#">WG1358846</a>
(S) 1,2-Dichloroethane-d4	89.7		70.0-130		10/07/2019 22:46	<a href="#">WG1358846</a>

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

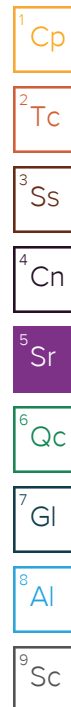
Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		200	50	10/05/2019 17:32	<a href="#">WG1357725</a>
(S) o-Terphenyl	74.9	<a href="#">J7</a>	18.0-148		10/05/2019 17:32	<a href="#">WG1357725</a>

## Sample Narrative:

L1145175-04 WG1357725: Diluted due to viscosity

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Acenaphthene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Acenaphthylene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Benzo(a)anthracene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Benzo(a)pyrene	0.0109		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Benzo(b)fluoranthene	0.0147		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Benzo(g,h,i)perylene	0.0172		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Benzo(k)fluoranthene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Chrysene	0.00646		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Dibenz(a,h)anthracene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Fluoranthene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Fluorene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Indeno(1,2,3-cd)pyrene	0.00719		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Naphthalene	ND		0.0200	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Phenanthrene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
Pyrene	ND		0.00600	1	10/05/2019 13:53	<a href="#">WG1357820</a>
1-Methylnaphthalene	ND		0.0200	1	10/05/2019 13:53	<a href="#">WG1357820</a>
2-Methylnaphthalene	ND		0.0200	1	10/05/2019 13:53	<a href="#">WG1357820</a>
2-Chloronaphthalene	ND		0.0200	1	10/05/2019 13:53	<a href="#">WG1357820</a>
(S) p-Terphenyl-d14	88.6		23.0-120		10/05/2019 13:53	<a href="#">WG1357820</a>
(S) Nitrobenzene-d5	96.7		14.0-149		10/05/2019 13:53	<a href="#">WG1357820</a>
(S) 2-Fluorobiphenyl	93.8		34.0-125		10/05/2019 13:53	<a href="#">WG1357820</a>





## Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	44.9		1	10/07/2019 17:29	WG1357830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	8.15		1.00	1	10/05/2019 15:41	<a href="#">WG1357657</a>

## Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/04/2019 18:14	<a href="#">WG1356624</a>

## Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.76	<a href="#">T8</a>	1	10/03/2019 23:00	<a href="#">WG1356940</a>

## Sample Narrative:

L1145175-05 WG1356940: 7.76 at 22.5C

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	15700		10.0	1	10/02/2019 21:36	<a href="#">WG1355946</a>

## Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0300	1	10/07/2019 18:09	<a href="#">WG1357532</a>

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.75		2.00	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Barium	392		0.500	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Cadmium	ND		0.500	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Chromium	8.15		1.00	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Copper	11.6		2.00	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Lead	7.98		0.500	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Nickel	8.35		2.00	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Selenium	ND		2.00	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Silver	ND		1.00	1	10/05/2019 15:41	<a href="#">WG1357657</a>
Zinc	28.3		5.00	1	10/05/2019 15:41	<a href="#">WG1357657</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.591		0.100	1	10/06/2019 18:42	<a href="#">WG1358296</a>
(S) a,a,a-Trifluorotoluene(FID)	97.3		77.0-120		10/06/2019 18:42	<a href="#">WG1358296</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RD mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/08/2019 01:52	<a href="#">WG1358847</a>
Toluene	0.0201		0.00500	1	10/08/2019 01:52	<a href="#">WG1358847</a>
Ethylbenzene	0.00663		0.00250	1	10/08/2019 01:52	<a href="#">WG1358847</a>
Total Xylenes	0.164		0.00650	1	10/08/2019 01:52	<a href="#">WG1358847</a>
Methyl tert-butyl ether	ND		0.00100	1	10/08/2019 01:52	<a href="#">WG1358847</a>
(S) Toluene-d8	113		75.0-131		10/08/2019 01:52	<a href="#">WG1358847</a>
(S) 4-Bromofluorobenzene	88.3		67.0-138		10/08/2019 01:52	<a href="#">WG1358847</a>
(S) 1,2-Dichloroethane-d4	91.4		70.0-130		10/08/2019 01:52	<a href="#">WG1358847</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

Analyte	Result mg/kg	Qualifier	RD mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	15.7		4.00	1	10/05/2019 15:50	<a href="#">WG1357725</a>
(S) o-Terphenyl	66.7		18.0-148		10/05/2019 15:50	<a href="#">WG1357725</a>

6 Qc

7 Gl

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RD mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Acenaphthene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Acenaphthylene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Benzo(a)anthracene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Benzo(a)pyrene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Benzo(b)fluoranthene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Benzo(g,h,i)perylene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Benzo(k)fluoranthene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Chrysene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Dibenz(a,h)anthracene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Fluoranthene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Fluorene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Naphthalene	ND		0.0200	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Phenanthrene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
Pyrene	ND		0.00600	1	10/05/2019 10:20	<a href="#">WG1357820</a>
1-Methylnaphthalene	ND		0.0200	1	10/05/2019 10:20	<a href="#">WG1357820</a>
2-Methylnaphthalene	ND		0.0200	1	10/05/2019 10:20	<a href="#">WG1357820</a>
2-Chloronaphthalene	ND		0.0200	1	10/05/2019 10:20	<a href="#">WG1357820</a>
(S) p-Terphenyl-d14	87.0		23.0-120		10/05/2019 10:20	<a href="#">WG1357820</a>
(S) Nitrobenzene-d5	103		14.0-149		10/05/2019 10:20	<a href="#">WG1357820</a>
(S) 2-Fluorobiphenyl	90.5		34.0-125		10/05/2019 10:20	<a href="#">WG1357820</a>

8 Al

9 Sc



## Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	54.2		1	10/08/2019 07:50	WG1357830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	6.72		1.00	1	10/05/2019 15:44	<a href="#">WG1357657</a>

## Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		2.00	1	10/04/2019 18:15	<a href="#">WG1356624</a>

## Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.88	<a href="#">T8</a>	1	10/03/2019 23:00	<a href="#">WG1356940</a>

## Sample Narrative:

L1145175-06 WG1356940: 7.88 at 22.8C

## Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	9880		10.0	1	10/02/2019 21:36	<a href="#">WG1355946</a>

## Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0300	1	10/07/2019 18:12	<a href="#">WG1357532</a>

## Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.56		2.00	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Barium	337		0.500	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Cadmium	ND		0.500	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Chromium	6.72		1.00	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Copper	9.61		2.00	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Lead	6.91		0.500	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Nickel	6.42		2.00	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Selenium	ND		2.00	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Silver	ND		1.00	1	10/05/2019 15:44	<a href="#">WG1357657</a>
Zinc	26.8		5.00	1	10/05/2019 15:44	<a href="#">WG1357657</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.18		0.100	1	10/06/2019 19:35	<a href="#">WG1358296</a>
(S) a,a,a-Trifluorotoluene(FID)	98.4		77.0-120		10/06/2019 19:35	<a href="#">WG1358296</a>





Collected date/time: 10/01/19 12:20

L1145175

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/08/2019 02:10	<a href="#">WG1358847</a>
Toluene	0.00553		0.00500	1	10/08/2019 02:10	<a href="#">WG1358847</a>
Ethylbenzene	0.00495		0.00250	1	10/08/2019 02:10	<a href="#">WG1358847</a>
Total Xylenes	0.131		0.00650	1	10/08/2019 02:10	<a href="#">WG1358847</a>
Methyl tert-butyl ether	ND		0.00100	1	10/08/2019 02:10	<a href="#">WG1358847</a>
(S) Toluene-d8	113		75.0-131		10/08/2019 02:10	<a href="#">WG1358847</a>
(S) 4-Bromofluorobenzene	87.7		67.0-138		10/08/2019 02:10	<a href="#">WG1358847</a>
(S) 1,2-Dichloroethane-d4	88.5		70.0-130		10/08/2019 02:10	<a href="#">WG1358847</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	27.9		4.00	1	10/05/2019 16:03	<a href="#">WG1357725</a>
(S) o-Terphenyl	58.5		18.0-148		10/05/2019 16:03	<a href="#">WG1357725</a>

6 Qc

7 Gl

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Acenaphthene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Acenaphthylene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Benzo(a)anthracene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Benzo(a)pyrene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Benzo(b)fluoranthene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Benzo(g,h,i)perylene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Benzo(k)fluoranthene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Chrysene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Dibenz(a,h)anthracene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Fluoranthene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Fluorene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Naphthalene	ND		0.0200	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Phenanthrene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
Pyrene	ND		0.00600	1	10/05/2019 10:42	<a href="#">WG1357820</a>
1-Methylnaphthalene	ND		0.0200	1	10/05/2019 10:42	<a href="#">WG1357820</a>
2-Methylnaphthalene	ND		0.0200	1	10/05/2019 10:42	<a href="#">WG1357820</a>
2-Chloronaphthalene	ND		0.0200	1	10/05/2019 10:42	<a href="#">WG1357820</a>
(S) p-Terphenyl-d14	77.0		23.0-120		10/05/2019 10:42	<a href="#">WG1357820</a>
(S) Nitrobenzene-d5	101		14.0-149		10/05/2019 10:42	<a href="#">WG1357820</a>
(S) 2-Fluorobiphenyl	85.3		34.0-125		10/05/2019 10:42	<a href="#">WG1357820</a>

8 Al

9 Sc



Method Blank (MB)

(MB) R3457890-1 10/04/19 18:03

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chromium,Hexavalent	U		0.640	2.00

<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

L1144462-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1144462-01 10/04/19 18:09 • (DUP) R3457890-3 10/04/19 18:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chromium,Hexavalent	ND	0.000	1	0.000		20

L1145512-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1145512-03 10/04/19 18:24 • (DUP) R3457890-8 10/04/19 18:24

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chromium,Hexavalent	U	0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3457890-2 10/04/19 18:04

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chromium,Hexavalent	24.0	23.5	97.8	80.0-120	

L1145512-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1145512-01 10/04/19 18:16 • (MS) R3457890-4 10/04/19 18:17 • (MSD) R3457890-5 10/04/19 18:17

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chromium,Hexavalent	20.0	U	ND	ND	0.000	0.000	1	75.0-125	J6	J6	0.000	20

L1145512-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1145512-01 10/04/19 18:16 • (MS) R3457890-6 10/04/19 18:18

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Chromium,Hexavalent	680	U	368	54.1	50	75.0-125	J6



L1144933-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1144933-21 10/03/19 13:00 • (DUP) R3457319-2 10/03/19 13:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.41	8.40	1	0.119		1

Sample Narrative:

OS: 8.41 at 26.2C

DUP: 8.4 at 25.4C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1145175-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1145175-02 10/03/19 13:00 • (DUP) R3457319-3 10/03/19 13:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.08	8.07	1	0.124		1

Sample Narrative:

OS: 8.08 at 25.5C

DUP: 8.07 at 25.3C

Laboratory Control Sample (LCS)

(LCS) R3457319-1 10/03/19 13:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	9.94	99.4	99.0-101	

Sample Narrative:

LCS: 9.94 at 22.9C

L1144493-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1144493-02 10/03/19 23:00 • (DUP) R3457540-2 10/03/19 23:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.64	8.58	1	0.697		1

Sample Narrative:

OS: 8.64 at 23.3C  
DUP: 8.58 at 23C

<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

L1145603-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1145603-07 10/03/19 23:00 • (DUP) R3457540-3 10/03/19 23:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.20	8.29	1	1.09	J3	1

Sample Narrative:

OS: 8.2 at 22.2C  
DUP: 8.29 at 21.9C

Laboratory Control Sample (LCS)

(LCS) R3457540-1 10/03/19 23:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	9.95	99.5	99.0-101	

Sample Narrative:

LCS: 9.95 at 22.4C



L1146058-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1146058-01 10/07/19 10:10 • (DUP) R3458348-3 10/07/19 10:10

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.63	7.69	1	0.783		1

Sample Narrative:

OS: 7.63 at 22.8C

DUP: 7.69 at 23C

Laboratory Control Sample (LCS)

(LCS) R3458348-1 10/07/19 10:10

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 20.8C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3457070-1 10/02/19 21:36

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	umhos/cm		umhos/cm	umhos/cm
Specific Conductance	U		10.0	10.0

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L1144933-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1144933-23 10/02/19 21:36 • (DUP) R3457070-3 10/02/19 21:36

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	umhos/cm	umhos/cm		%		%
Specific Conductance	1960	1950	1	0.460		20

L1144933-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1144933-29 10/02/19 21:36 • (DUP) R3457070-4 10/02/19 21:36

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	umhos/cm	umhos/cm		%		%
Specific Conductance	4760	4780	1	0.419		20

Laboratory Control Sample (LCS)

(LCS) R3457070-2 10/02/19 21:36

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	umhos/cm	umhos/cm	%	%	
Specific Conductance	393	389	99.0	85.0-115	



Method Blank (MB)

(MB) R3458610-1 10/07/19 17:28

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.00280	0.0300

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

(LCS) R3458610-2 10/07/19 17:31 • (LCSD) R3458610-3 10/07/19 17:33

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Mercury	0.500	0.475	0.470	95.0	93.9	80.0-120			1.12	20

L1144837-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1144837-02 10/07/19 17:36 • (MS) R3458610-4 10/07/19 17:38 • (MSD) R3458610-5 10/07/19 17:41

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.518	0.0294	0.503	0.498	91.4	90.5	1	75.0-125			0.919	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3458237-1 10/05/19 14:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.460	2.00
Barium	U		0.170	0.500
Cadmium	U		0.0700	0.500
Chromium	U		0.140	1.00
Copper	U		0.530	2.00
Lead	U		0.190	0.500
Nickel	U		0.490	2.00
Selenium	U		0.620	2.00
Silver	U		0.120	1.00
Zinc	U		0.590	5.00

<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) R3458237-2 10/05/19 14:40 • (LCSD) R3458237-3 10/05/19 14:43

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	93.2	94.6	93.2	94.6	80.0-120			1.55	20
Barium	100	100	102	100	102	80.0-120			1.84	20
Cadmium	100	94.6	96.2	94.6	96.2	80.0-120			1.68	20
Chromium	100	96.0	98.2	96.0	98.2	80.0-120			2.27	20
Copper	100	97.6	99.8	97.6	99.8	80.0-120			2.19	20
Lead	100	94.4	95.5	94.4	95.5	80.0-120			1.19	20
Nickel	100	96.5	97.9	96.5	97.9	80.0-120			1.42	20
Selenium	100	98.2	100	98.2	100	80.0-120			1.92	20
Silver	20.0	17.6	17.8	88.0	89.0	80.0-120			1.09	20
Zinc	100	94.8	96.6	94.8	96.6	80.0-120			1.89	20

L1144756-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1144756-01 10/05/19 14:46 • (MS) R3458237-6 10/05/19 14:53 • (MSD) R3458237-7 10/05/19 14:56

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 %
Arsenic	100	3.39	104	102	101	98.4	1	75.0-125			2.55	20
Barium	100	200	328	305	128	105	1	75.0-125	J5		7.09	20
Cadmium	100	0.152	102	99.2	102	99.0	1	75.0-125			3.08	20
Chromium	100	20.3	126	122	106	101	1	75.0-125			3.55	20
Copper	100	16.7	131	123	115	106	1	75.0-125			6.59	20
Lead	100	11.3	119	115	108	104	1	75.0-125			3.41	20
Nickel	100	16.3	126	123	110	107	1	75.0-125			2.35	20





L1144756-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1144756-01 10/05/19 14:46 • (MS) R3458237-6 10/05/19 14:53 • (MSD) R3458237-7 10/05/19 14:56

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Selenium	100	U	105	101	105	101	1	75.0-125			3.58	20
Silver	20.0	U	19.0	18.4	95.1	92.0	1	75.0-125			3.31	20
Zinc	100	36.0	139	133	103	97.3	1	75.0-125			4.47	20

<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) R3458491-3 10/06/19 11:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0519	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	105			77.0-120

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

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Qc

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Gl

8  
Al

9  
Sc

Laboratory Control Sample (LCS)

(LCS) R3458491-2 10/06/19 10:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.77	86.7	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			102	77.0-120	



Method Blank (MB)

(MB) R3458875-2 10/07/19 10:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	95.8			77.0-120

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

(LCS) R3458875-1 10/07/19 10:07 • (LCSD) R3458875-3 10/07/19 11:43

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	4.40	4.82	80.0	87.6	72.0-127			9.11	20
(S) a,a,a-Trifluorotoluene(FID)				102	102	77.0-120				

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Method Blank (MB)

(MB) R3458696-2 10/07/19 15:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Methyl tert-butyl ether	U		0.000295	0.00100
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	108			75.0-131
(S) 4-Bromofluorobenzene	89.9			67.0-138
(S) 1,2-Dichloroethane-d4	106			70.0-130

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3458696-1 10/07/19 13:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.111	88.8	70.0-123	
Ethylbenzene	0.125	0.129	103	74.0-126	
Methyl tert-butyl ether	0.125	0.168	134	66.0-132	J4
Toluene	0.125	0.131	105	75.0-121	
Xylenes, Total	0.375	0.361	96.3	72.0-127	
(S) Toluene-d8			107	75.0-131	
(S) 4-Bromofluorobenzene			92.5	67.0-138	
(S) 1,2-Dichloroethane-d4			102	70.0-130	

L1145175-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1145175-04 10/07/19 22:46 • (MS) R3458696-3 10/07/19 23:04 • (MSD) R3458696-4 10/07/19 23:23

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	0.125	ND	0.0501	0.0586	40.1	46.9	1	10.0-149			15.6	37
Ethylbenzene	0.125	0.0173	0.0985	0.114	65.0	77.4	1	10.0-160			14.6	38
Methyl tert-butyl ether	0.125	ND	0.139	0.134	111	107	1	11.0-147			3.66	35
Toluene	0.125	0.0279	0.143	0.151	92.1	98.5	1	10.0-156			5.44	38
Xylenes, Total	0.375	0.500	1.41	1.48	243	261	1	10.0-160	J5	J5	4.84	38
(S) Toluene-d8					112	111		75.0-131				
(S) 4-Bromofluorobenzene					87.5	90.2		67.0-138				
(S) 1,2-Dichloroethane-d4					88.3	88.8		70.0-130				



Method Blank (MB)

(MB) R3458697-3 10/08/19 01:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Methyl tert-butyl ether	U		0.000295	0.00100
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	112			75.0-131
(S) 4-Bromofluorobenzene	87.9			67.0-138
(S) 1,2-Dichloroethane-d4	88.4			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) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3458697-1 10/08/19 00:19 • (LCSD) R3458697-2 10/08/19 00:37

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 %
Benzene	0.125	0.118	0.105	94.4	84.0	70.0-123			11.7	20
Ethylbenzene	0.125	0.135	0.124	108	99.2	74.0-126			8.49	20
Methyl tert-butyl ether	0.125	0.162	0.157	130	126	66.0-132			3.13	20
Toluene	0.125	0.136	0.124	109	99.2	75.0-121			9.23	20
Xylenes, Total	0.375	0.374	0.345	99.7	92.0	72.0-127			8.07	20
(S) Toluene-d8				106	107	75.0-131				
(S) 4-Bromofluorobenzene				95.6	95.3	67.0-138				
(S) 1,2-Dichloroethane-d4				93.5	93.6	70.0-130				

L1145963-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1145963-02 10/08/19 02:48 • (MS) R3458697-4 10/08/19 08:02 • (MSD) R3458697-5 10/08/19 08:21

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	0.00500	U	0.00223	0.00374	44.6	74.8	.04	10.0-149		J3	50.6	37
Ethylbenzene	0.00500	U	0.00252	0.00450	50.4	90.0	.04	10.0-160		J3	56.4	38
Methyl tert-butyl ether	0.00500	U	0.00544	0.00641	109	128	.04	11.0-147			16.4	35
Toluene	0.00500	U	0.00280	0.00469	56.0	93.8	.04	10.0-156		J3	50.5	38
Xylenes, Total	0.0150	U	0.00730	0.0121	48.7	80.7	.04	10.0-160		J3	49.5	38
(S) Toluene-d8					109	110		75.0-131				
(S) 4-Bromofluorobenzene					86.3	85.6		67.0-138				
(S) 1,2-Dichloroethane-d4					96.2	95.4		70.0-130				



Method Blank (MB)

(MB) R3459232-3 10/08/19 12:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	111			75.0-131
(S) 4-Bromofluorobenzene	90.0			67.0-138
(S) 1,2-Dichloroethane-d4	97.8			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) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3459232-1 10/08/19 08:58 • (LCSD) R3459232-2 10/08/19 09:17

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 %
Xylenes, Total	0.375	0.340	0.336	90.7	89.6	72.0-127			1.18	20
(S) Toluene-d8				105	108	75.0-131				
(S) 4-Bromofluorobenzene				89.8	89.6	67.0-138				
(S) 1,2-Dichloroethane-d4				100	99.6	70.0-130				



Method Blank (MB)

(MB) R3458048-1 10/05/19 12:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	80.5			18.0-148

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3458048-2 10/05/19 12:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	50.0	45.6	91.2	50.0-150	
(S) o-Terphenyl			109	18.0-148	

L1145175-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1145175-01 10/05/19 17:44 • (MS) R3458048-3 10/05/19 17:57 • (MSD) R3458048-4 10/05/19 18:10

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 %
TPH (GC/FID) High Fraction	50.0	134	467	283	666	298	5	50.0-150	J5	J3 J5	49.1	20
(S) o-Terphenyl					78.8	68.8		18.0-148				

Method Blank (MB)

(MB) R3458039-2 10/05/19 06:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	114			14.0-149
(S) 2-Fluorobiphenyl	111			34.0-125
(S) p-Terphenyl-d14	106			23.0-120

1

Cp

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Tc

3

Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Laboratory Control Sample (LCS)

(LCS) R3458039-1 10/05/19 05:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0910	114	50.0-126	
Acenaphthene	0.0800	0.0808	101	50.0-120	
Acenaphthylene	0.0800	0.0900	113	50.0-120	
Benzo(a)anthracene	0.0800	0.0836	105	45.0-120	
Benzo(a)pyrene	0.0800	0.0731	91.4	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0719	89.9	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0768	96.0	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0910	114	49.0-125	
Chrysene	0.0800	0.0914	114	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0815	102	47.0-125	
Fluoranthene	0.0800	0.0937	117	49.0-129	



Laboratory Control Sample (LCS)

(LCS) R3458039-1 10/05/19 05:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Fluorene	0.0800	0.0885	111	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0798	99.8	46.0-125	
Naphthalene	0.0800	0.0809	101	50.0-120	
Phenanthrene	0.0800	0.0804	101	47.0-120	
Pyrene	0.0800	0.0883	110	43.0-123	
1-Methylnaphthalene	0.0800	0.0872	109	51.0-121	
2-Methylnaphthalene	0.0800	0.0838	105	50.0-120	
2-Chloronaphthalene	0.0800	0.0794	99.3	50.0-120	
(S) Nitrobenzene-d5			115	14.0-149	
(S) 2-Fluorobiphenyl			108	34.0-125	
(S) p-Terphenyl-d14			100	23.0-120	

L1144944-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1144944-02 10/05/19 07:51 • (MS) R3458039-3 10/05/19 08:13 • (MSD) R3458039-4 10/05/19 08:34

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0800	ND	0.0755	0.0725	92.5	88.8	1	10.0-145			4.05	30
Acenaphthene	0.0800	0.0584	0.194	0.114	170	69.5	1	14.0-127	J5	J3	51.9	27
Acenaphthylene	0.0800	ND	0.0749	0.0736	93.6	92.0	1	21.0-124			1.75	25
Benzo(a)anthracene	0.0800	ND	0.0721	0.0670	90.1	83.8	1	10.0-139			7.33	30
Benzo(a)pyrene	0.0800	ND	0.0673	0.0664	84.1	83.0	1	10.0-141			1.35	31
Benzo(b)fluoranthene	0.0800	ND	0.0636	0.0575	79.5	71.9	1	10.0-140			10.1	36
Benzo(g,h,i)perylene	0.0800	ND	0.0621	0.0610	77.6	76.3	1	10.0-140			1.79	33
Benzo(k)fluoranthene	0.0800	ND	0.0690	0.0717	86.3	89.6	1	10.0-137			3.84	31
Chrysene	0.0800	ND	0.0712	0.0673	89.0	84.1	1	10.0-145			5.63	30
Dibenz(a,h)anthracene	0.0800	ND	0.0673	0.0638	84.1	79.8	1	10.0-132			5.34	31
Fluoranthene	0.0800	ND	0.0700	0.0731	87.5	91.4	1	10.0-153			4.33	33
Fluorene	0.0800	0.0238	0.120	0.0900	120	82.8	1	11.0-130			28.6	29
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0654	0.0631	81.8	78.9	1	10.0-137			3.58	32
Naphthalene	0.0800	0.0266	0.118	0.0916	114	81.3	1	10.0-135			25.2	27
Phenanthrene	0.0800	0.00671	0.0806	0.0685	92.4	77.2	1	10.0-144			16.2	31
Pyrene	0.0800	ND	0.0608	0.0634	76.0	79.3	1	10.0-148			4.19	35
1-Methylnaphthalene	0.0800	0.0664	0.201	0.123	168	70.8	1	10.0-142	J5	J3	48.1	28
2-Methylnaphthalene	0.0800	0.102	0.270	0.149	210	58.8	1	10.0-137	J5	J3	57.8	28
2-Chloronaphthalene	0.0800	ND	0.0658	0.0686	82.3	85.8	1	29.0-120			4.17	24
(S) Nitrobenzene-d5					101	101		14.0-149				
(S) 2-Fluorobiphenyl					90.9	92.0		34.0-125				
(S) p-Terphenyl-d14					72.9	75.4		23.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



## 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.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### 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.
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

J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper 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.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
T8	Sample(s) received past/too close to holding time expiration.

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

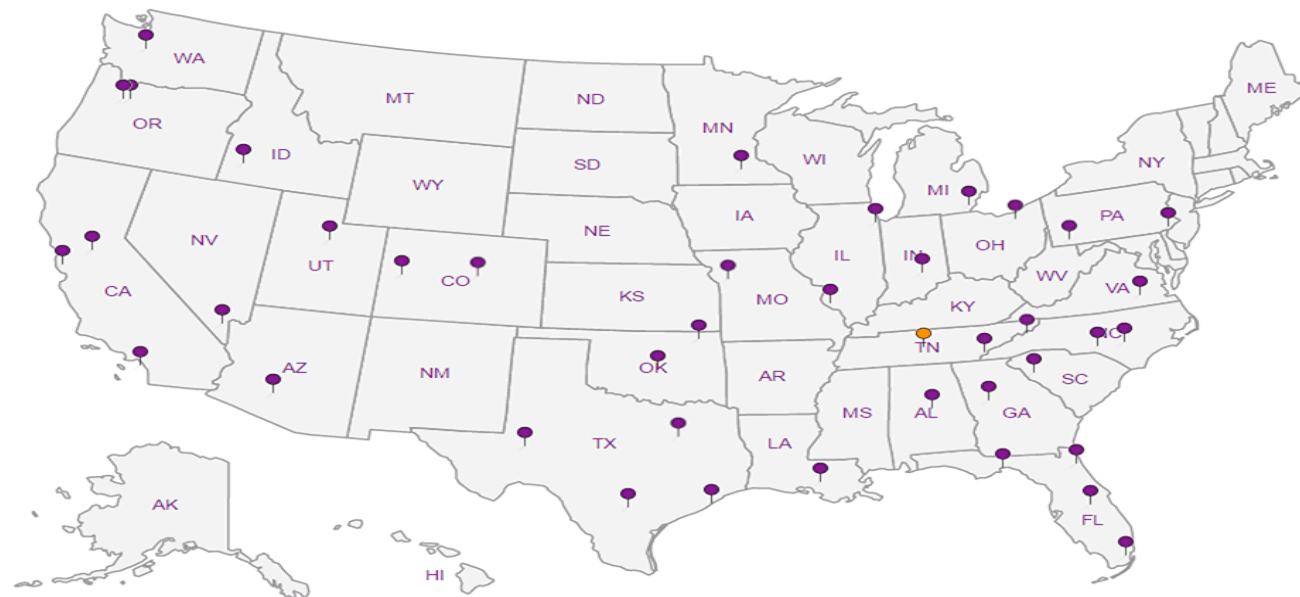
## Third Party Federal Accreditations




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

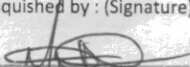

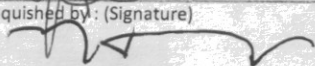
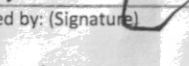
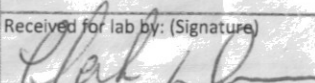
## Our Locations

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.



Company Name/Address: <b>Entrada Consulting Group</b> 330 Grand Avenue, Suite C Grand Junction, CO 81501				Billing Information: * LARAMIE OIL + GAS				Analysis / Container / Preservative										Chain of Custody Page 1 of 1  YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 							
Report to: <b>Matt Kasten</b>				Email To: <b>mkasten@entradainc.com</b>																					
Project Description: <b>KOBE FLANGE - SOIL</b>				City/State Collected:																					
Phone: <b>(970) 901-9007</b> Fax:				Client Project #				Lab Project #																	
Collected by (print): <b>Matt Kasten</b>				Site/Facility ID #				P.O. #																	
Collected by (signature):  Immediately Packed on Ice N ___ Y <input checked="" type="checkbox"/>				<b>Rush? (Lab MUST Be Notified)</b> Same Day .....200% Next Day .....100% <input checked="" type="checkbox"/> Two Day .....50% Three Day .....25%				Date Results Needed Email? ___ No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No ___ Yes				No. of Cntrs													
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time		BTEX / GRO	DRO	PAH	SAR, Specific Conductivity, pH	RCRA8 Metals + Cu, Ni,	Cr3, Cr6	Arsenic											
KOBE FLANGE - POR						1145	3	x	x	x	x	x	x	x											
KOBE FLANGE - DRAIN S1						1150	3	x	x	x	x	x	x	x											
KOBE FLANGE - DRAIN S2						1155	3	x	x	x	x	x	x	x											
KOBE FLANGE - DRAIN N1						1200	3	x	x	x	x	x	x	x											
KOBE FLANGE - DRAIN S3						1205	3	x	x	x	x	x	x	x											
KOBE FLANGE - DRAIN N2						1220	3	x	x	x	x	x	x	x											

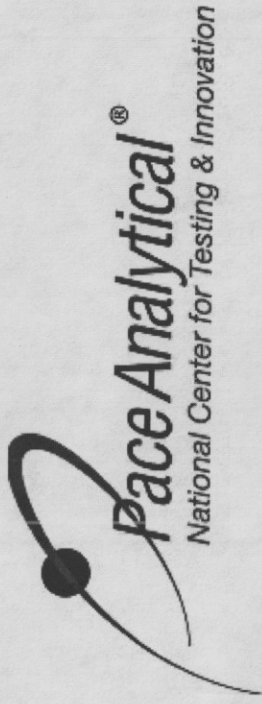
\* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other **RAD SCREEN: <0.5 mR/hr** pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) 		Date: 10/1/17	Time: 1800	Received by: (Signature) 		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____		Condition: (lab use only) NCF	
Relinquished by: (Signature) 		Date: 10/1/17	Time: 1700	Received by: (Signature) 		Temp: _____ °C Bottles Received: 45-2=43.45 18		COC Seal Intact: ___ Y ___ N <input checked="" type="checkbox"/> NA	
Relinquished by: (Signature)		Date:	Time:	Received for lab by: (Signature) 		Date: 10/2/19		Time: 8:45	
								pH Checked: NCF:	

451016634370



**Kelsey Stephenson**



Login #: L1145175	Client: OXYGICO	Date: 10/02	Evaluated by: Kelsey S
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**Non-Conformance (check applicable items)**

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	
Temperature not in range	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
pH not in range.	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	<b>If no Chain of Custody:</b>
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 KOBE FLANGE-DRAIN N2 ad KOBE FLANGE-DRAIN N3. Time and date do match.**

Client informed by:	x	Call	Email	Voice Mail	Date: 10/2/19	Time: 1112
TSR Initials: CMW	Client Contact: Matt Kasten					

**Login Instructions:**

Log per COC "N2"