Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 07, 2019

Laramie Energy - Grand Junction, CO

Sample Delivery Group:	L1144054
Samples Received:	09/27/2019
Project Number:	
Description:	17-2 Spill Response

Report To: Stuart Hall
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager

TABLE OF CONTENTS

MWR 17-2 SS1 L1144054-01 Solid

Collected by: Tim Dobransky
Collected date/time: 09/26/19 10:15
Received date/time: 09/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1354301	1	10/02/19 22:08	10/02/19 22:08	EL	Mt. Juliet, TN
Calculated Results	WG1354209	1	09/30/19 07:03	10/02/19 13:32	MSP	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1354949	1	10/01/19 12:00	10/02/19 13:32	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1354815	1	10/01/19 09:58	10/01/19 10:55	EEM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1354119	1	09/28/19 20:41	09/28/19 23:11	AKA	Mt. Juliet, TN
Mercury by Method 7471A	WG1354444	1	10/01/19 10:05	10/01/19 19:57	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1354209	1	09/30/19 07:03	09/30/19 21:58	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1356981	1	10/01/19 00:15	10/03/19 16:33	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1356718	1	10/01/19 00:15	10/03/19 10:54	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1354184	10	09/29/19 16:36	09/30/19 04:35	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1354340	1	09/30/19 16:03	10/01/19 03:39	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1354340	20	09/30/19 16:03	10/01/19 06:27	DMG	Mt. Juliet, TN

MWR 17-2 SS2 L1144054-02 Solid

Collected by: Tim Dobransky
Collected date/time: 09/26/19 10:30
Received date/time: 09/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1354301	1	10/02/19 22:11	10/02/19 22:11	EL	Mt. Juliet, TN
Calculated Results	WG1354209	1	09/30/19 07:03	10/03/19 16:16	JIC	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1355147	1	10/03/19 08:00	10/03/19 16:16	JIC	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1354815	1	10/01/19 09:58	10/01/19 10:55	EEM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1354119	1	09/28/19 20:41	09/28/19 23:11	AKA	Mt. Juliet, TN
Mercury by Method 7471A	WG1354444	1	10/01/19 10:05	10/01/19 20:30	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1354209	1	09/30/19 07:03	09/30/19 22:01	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1356718	1	10/01/19 00:15	10/03/19 11:14	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1354184	20	09/29/19 16:36	09/30/19 03:57	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1354340	1	09/30/19 16:03	10/01/19 04:24	DMG	Mt. Juliet, TN

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

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All 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

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	6.17		1	10/02/2019 22:08	WG1354301

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	14.3		1.00	1	10/02/2019 13:32	WG1354209

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	10/02/2019 13:32	WG1354949

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.46	T8	1	10/01/2019 10:55	WG1354815

Sample Narrative:

L1144054-01 WG1354815: 8.46 at 23.7C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	954		10.0	1	09/28/2019 23:11	WG1354119

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0300	1	10/01/2019 19:57	WG1354444

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.22		2.00	1	09/30/2019 21:58	WG1354209
Barium	220		0.500	1	09/30/2019 21:58	WG1354209
Cadmium	ND		0.500	1	09/30/2019 21:58	WG1354209
Chromium	14.3		1.00	1	09/30/2019 21:58	WG1354209
Copper	13.5		2.00	1	09/30/2019 21:58	WG1354209
Lead	4.58		0.500	1	09/30/2019 21:58	WG1354209
Nickel	37.1		2.00	1	09/30/2019 21:58	WG1354209
Selenium	ND		2.00	1	09/30/2019 21:58	WG1354209
Silver	ND		1.00	1	09/30/2019 21:58	WG1354209
Zinc	55.3		5.00	1	09/30/2019 21:58	WG1354209

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00248		0.000500	1	10/03/2019 10:54	WG1356718
Toluene	0.00683		0.00500	1	10/03/2019 10:54	WG1356718
Ethylbenzene	0.00209		0.000500	1	10/03/2019 10:54	WG1356718
Total Xylene	0.0310		0.00150	1	10/03/2019 10:54	WG1356718
TPH (GC/FID) Low Fraction	0.697		0.100	1	10/03/2019 16:33	WG1356981

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*82.4*		*77.0-120*		*10/03/2019 10:54*	WG1356718
(S) a,a,a-Trifluorotoluene(FID)	*79.5*		*77.0-120*		*10/03/2019 16:33*	WG1356981
(S) a,a,a-Trifluorotoluene(PID)	*85.0*		*72.0-128*		*10/03/2019 10:54*	WG1356718
(S) a,a,a-Trifluorotoluene(PID)	*77.1*		*72.0-128*		*10/03/2019 16:33*	WG1356981

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	3090		40.0	10	09/30/2019 04:35	WG1354184
(S) o-Terphenyl	*75.2*		*18.0-148*		*09/30/2019 04:35*	WG1354184

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	10/01/2019 03:39	WG1354340
Acenaphthene	ND		0.00600	1	10/01/2019 03:39	WG1354340
Acenaphthylene	ND		0.00600	1	10/01/2019 03:39	WG1354340
Benzo(a)anthracene	ND		0.120	20	10/01/2019 06:27	WG1354340
Benzo(a)pyrene	ND		0.120	20	10/01/2019 06:27	WG1354340
Benzo(b)fluoranthene	ND		0.120	20	10/01/2019 06:27	WG1354340
Benzo(g,h,i)perylene	ND		0.120	20	10/01/2019 06:27	WG1354340
Benzo(k)fluoranthene	ND		0.120	20	10/01/2019 06:27	WG1354340
Chrysene	ND		0.120	20	10/01/2019 06:27	WG1354340
Dibenz(a,h)anthracene	ND		0.120	20	10/01/2019 06:27	WG1354340
Fluoranthene	ND		0.00600	1	10/01/2019 03:39	WG1354340
Fluorene	ND		0.00600	1	10/01/2019 03:39	WG1354340
Indeno(1,2,3-cd)pyrene	ND		0.120	20	10/01/2019 06:27	WG1354340
Naphthalene	0.0289		0.0200	1	10/01/2019 03:39	WG1354340
Phenanthrene	0.0113		0.00600	1	10/01/2019 03:39	WG1354340
Pyrene	ND		0.120	20	10/01/2019 06:27	WG1354340
1-Methylnaphthalene	0.0339		0.0200	1	10/01/2019 03:39	WG1354340
2-Methylnaphthalene	0.0827		0.0200	1	10/01/2019 03:39	WG1354340
2-Chloronaphthalene	ND		0.0200	1	10/01/2019 03:39	WG1354340
(S) p-Terphenyl-d14	*0.000*	J2	*23.0-120*		*10/01/2019 03:39*	WG1354340
(S) p-Terphenyl-d14	*81.3*	J7	*23.0-120*		*10/01/2019 06:27*	WG1354340
(S) Nitrobenzene-d5	*78.3*		*14.0-149*		*10/01/2019 03:39*	WG1354340
(S) Nitrobenzene-d5	*76.5*	J7	*14.0-149*		*10/01/2019 06:27*	WG1354340
(S) 2-Fluorobiphenyl	*72.2*		*34.0-125*		*10/01/2019 03:39*	WG1354340
(S) 2-Fluorobiphenyl	*67.8*	J7	*34.0-125*		*10/01/2019 06:27*	WG1354340

Sample Narrative:

L1144054-01 WG1354340: Surrogate recovery and internal standards impacted by matrix, sample also reanalyzed at a dilution

L1144054-01 WG1354340: Dilution due to matrix impact on instrumentation at lower dilution

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	26.9		1	10/02/2019 22:11	WG1354301

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	16.6		1.00	1	10/03/2019 16:16	WG1354209

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	10/03/2019 16:16	WG1355147

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.34	T8	1	10/01/2019 10:55	WG1354815

Sample Narrative:
L1144054-02 WG1354815: 8.34 at 23.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	5550		10.0	1	09/28/2019 23:11	WG1354119

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.163		0.0300	1	10/01/2019 20:30	WG1354444

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	09/30/2019 22:01	WG1354209
Barium	354		0.500	1	09/30/2019 22:01	WG1354209
Cadmium	ND		0.500	1	09/30/2019 22:01	WG1354209
Chromium	16.6		1.00	1	09/30/2019 22:01	WG1354209
Copper	17.0		2.00	1	09/30/2019 22:01	WG1354209
Lead	6.52		0.500	1	09/30/2019 22:01	WG1354209
Nickel	48.2		2.00	1	09/30/2019 22:01	WG1354209
Selenium	ND		2.00	1	09/30/2019 22:01	WG1354209
Silver	ND		1.00	1	09/30/2019 22:01	WG1354209
Zinc	49.1		5.00	1	09/30/2019 22:01	WG1354209

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00403		0.000500	1	10/03/2019 11:14	WG1356718
Toluene	ND		0.00500	1	10/03/2019 11:14	WG1356718
Ethylbenzene	ND		0.000500	1	10/03/2019 11:14	WG1356718
Total Xylene	0.00369		0.00150	1	10/03/2019 11:14	WG1356718
TPH (GC/FID) Low Fraction	ND		0.100	1	10/03/2019 11:14	WG1356718

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*90.3*		*77.0-120*		*10/03/2019 11:14*	WG1356718
(S) a,a,a-Trifluorotoluene(PID)	*93.3*		*72.0-128*		*10/03/2019 11:14*	WG1356718

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	164		80.0	20	09/30/2019 03:57	WG1354184
(S) o-Terphenyl	*88.1*	J7	*18.0-148*		*09/30/2019 03:57*	WG1354184

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	10/01/2019 04:24	WG1354340
Acenaphthene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Acenaphthylene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Benzo(a)anthracene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Benzo(a)pyrene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Benzo(b)fluoranthene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Benzo(g,h,i)perylene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Benzo(k)fluoranthene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Chrysene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Dibenz(a,h)anthracene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Fluoranthene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Fluorene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Naphthalene	ND		0.0200	1	10/01/2019 04:24	WG1354340
Phenanthrene	ND		0.00600	1	10/01/2019 04:24	WG1354340
Pyrene	ND		0.00600	1	10/01/2019 04:24	WG1354340
1-Methylnaphthalene	ND		0.0200	1	10/01/2019 04:24	WG1354340
2-Methylnaphthalene	ND		0.0200	1	10/01/2019 04:24	WG1354340
2-Chloronaphthalene	ND		0.0200	1	10/01/2019 04:24	WG1354340
(S) p-Terphenyl-d14	*79.5*		*23.0-120*		*10/01/2019 04:24*	WG1354340
(S) Nitrobenzene-d5	*77.5*		*14.0-149*		*10/01/2019 04:24*	WG1354340
(S) 2-Fluorobiphenyl	*77.6*		*34.0-125*		*10/01/2019 04:24*	WG1354340

Method Blank (MB)

(MB) R3456962-1 10/02/19 13:05

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

L1143561-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1143561-09 10/02/19 13:08 • (DUP) R3456962-3 10/02/19 13:09

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

L1143802-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1143802-01 10/02/19 13:30 • (DUP) R3456962-8 10/02/19 13:31

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

Laboratory Control Sample (LCS)

(LCS) R3456962-2 10/02/19 13:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chromium,Hexavalent	24.0	25.1	105	80.0-120	

L1143567-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1143567-01 10/02/19 13:18 • (MS) R3456962-4 10/02/19 13:20 • (MSD) R3456962-5 10/02/19 13:20

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 %
Chromium,Hexavalent	20.0	ND	6.96	6.70	34.8	33.5	1	75.0-125	J6	J6	3.89	20

L1143567-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1143567-01 10/02/19 13:18 • (MS) R3456962-6 10/02/19 13:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chromium,Hexavalent	677	ND	654	96.7	50	75.0-125	

Method Blank (MB)

(MB) R3457485-1 10/03/19 16:15

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

L1144323-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1144323-05 10/03/19 16:18 • (DUP) R3457485-3 10/03/19 16:18

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chromium,Hexavalent	4.24	4.43	1	4.46		20

L1144360-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1144360-06 10/03/19 16:28 • (DUP) R3457485-8 10/03/19 16:28

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

Laboratory Control Sample (LCS)

(LCS) R3457485-2 10/03/19 16:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chromium,Hexavalent	24.0	24.9	104	80.0-120	

L1144323-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1144323-05 10/03/19 16:18 • (MS) R3457485-4 10/03/19 16:19 • (MSD) R3457485-5 10/03/19 16:19

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 %
Chromium,Hexavalent	20.0	4.24	20.2	20.7	80.0	82.2	1	75.0-125			2.09	20

L1144323-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1144323-05 10/03/19 16:18 • (MS) R3457485-6 10/03/19 16:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chromium,Hexavalent	662	4.24	691	104	50	75.0-125	

L1143947-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1143947-03 10/01/19 10:55 • (DUP) R3456339-2 10/01/19 10:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.93	7.90	1	0.379		1

Sample Narrative:

OS: 7.93 at 23.7C

DUP: 7.9 at 23.8C

L1144066-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1144066-01 10/01/19 10:55 • (DUP) R3456339-3 10/01/19 10:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	1.91	1.92	1	0.522		1

Sample Narrative:

OS: 1.91 at 23.6C

DUP: 1.92 at 23.6C

Laboratory Control Sample (LCS)

(LCS) R3456339-1 10/01/19 10:55

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.91	99.1	99.0-101	

Sample Narrative:

LCS: 9.91 at 22.5C

Method Blank (MB)

(MB) R3455583-1 09/28/19 23:11

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

L1144063-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1144063-01 09/28/19 23:11 • (DUP) R3455583-3 09/28/19 23:11

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2550	2540	1	0.354		20

L1144380-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1144380-04 09/28/19 23:11 • (DUP) R3455583-4 09/28/19 23:11

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	212	211	1	0.378		20

Laboratory Control Sample (LCS)

(LCS) R3455583-2 09/28/19 23:11

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	393	392	99.7	85.0-115	

Method Blank (MB)

(MB) R3456632-1 10/01/19 19:50

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

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

(LCS) R3456632-2 10/01/19 19:52 • (LCSD) R3456632-3 10/01/19 19:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.500	0.477	0.477	95.4	95.3	80.0-120			0.0551	20

L1144054-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1144054-01 10/01/19 19:57 • (MS) R3456632-4 10/01/19 20:00 • (MSD) R3456632-5 10/01/19 20:07

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 %
Mercury	0.500	ND	0.448	0.471	88.8	93.4	1	75.0-125			5.00	20

Method Blank (MB)

(MB) R3456233-1 09/30/19 20:43

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	0.150	J	0.120	1.00
Zinc	U		0.590	5.00

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

(LCS) R3456233-2 09/30/19 20:46 • (LCSD) R3456233-3 09/30/19 20:48

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	94.4	95.2	94.4	95.2	80.0-120			0.834	20
Barium	100	101	102	101	102	80.0-120			1.13	20
Cadmium	100	98.3	99.2	98.3	99.2	80.0-120			0.923	20
Chromium	100	92.5	92.5	92.5	92.5	80.0-120			0.0224	20
Copper	100	93.1	94.3	93.1	94.3	80.0-120			1.33	20
Lead	100	92.6	93.8	92.6	93.8	80.0-120			1.36	20
Nickel	100	96.5	97.7	96.5	97.7	80.0-120			1.24	20
Selenium	100	98.4	99.5	98.4	99.5	80.0-120			1.19	20
Silver	20.0	18.1	18.2	90.5	91.2	80.0-120			0.776	20
Zinc	100	94.2	95.4	94.2	95.4	80.0-120			1.23	20

L1142883-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1142883-05 09/30/19 20:51 • (MS) R3456233-6 09/30/19 20:59 • (MSD) R3456233-7 09/30/19 21:01

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	103	U	95.2	94.6	92.7	92.0	1	75.0-125			0.701	20
Barium	103	3.08	106	105	101	99.4	1	75.0-125			1.20	20
Cadmium	103	U	99.4	98.6	96.7	96.0	1	75.0-125			0.793	20
Chromium	103	2.60	97.6	95.4	92.4	90.3	1	75.0-125			2.26	20
Copper	103	56.9	151	130	91.5	71.5	1	75.0-125		J6	14.6	20
Lead	103	2.00	97.4	97.0	92.8	92.5	1	75.0-125			0.393	20

L1142883-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1142883-05 09/30/19 20:51 • (MS) R3456233-6 09/30/19 20:59 • (MSD) R3456233-7 09/30/19 21:01

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 %
Nickel	103	1.44	101	100	96.7	96.0	1	75.0-125			0.641	20
Selenium	103	U	99.2	98.8	96.5	96.1	1	75.0-125			0.401	20
Silver	20.6	0.169	18.7	18.3	90.0	88.2	1	75.0-125			2.05	20
Zinc	103	103	195	157	90.1	53.2	1	75.0-125		J3 J6	21.6	20

Method Blank (MB)

(MB) R3457416-2 10/03/19 10:22

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)	*107*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*102*			*72.0-128*

Laboratory Control Sample (LCS)

(LCS) R3457416-1 10/03/19 09:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.58	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*110*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*126*	*72.0-128*	

Method Blank (MB)

(MB) R3457362-3 10/03/19 09:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	0.000129	J	0.000120	0.000500
Toluene	0.000178	J	0.000150	0.00500
Ethylbenzene	0.000127	J	0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	0.0260	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.9*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*96.6*			*72.0-128*

Laboratory Control Sample (LCS)

(LCS) R3457362-1 10/03/19 08:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0481	96.2	76.0-121	
Toluene	0.0500	0.0479	95.8	80.0-120	
Ethylbenzene	0.0500	0.0491	98.2	80.0-124	
Total Xylene	0.150	0.148	98.7	37.0-160	
(S) a,a,a-Trifluorotoluene(FID)			*93.6*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*96.5*	*72.0-128*	

Laboratory Control Sample (LCS)

(LCS) R3457362-2 10/03/19 08:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.73	122	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*108*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*104*	*72.0-128*	

L1143513-24 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1143513-24 10/03/19 17:42 • (MS) R3457362-4 10/03/19 18:02 • (MSD) R3457362-5 10/03/19 18:23

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 %
TPH (GC/FID) Low Fraction	147	U	152	119	103	80.3	26.8	10.0-151			24.4	28
(S) a,a,a-Trifluorotoluene(FID)					*106*	*103*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*106*	*102*		*72.0-128*				

L1144757-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1144757-01 10/03/19 12:54 • (MS) R3457362-6 10/03/19 18:43 • (MSD) R3457362-7 10/03/19 19:04

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	10.0	0.496	8.03	7.79	75.3	72.9	200	10.0-155			3.03	32
Toluene	10.0	6.82	12.5	12.2	56.8	53.8	200	10.0-160			2.43	34
Ethylbenzene	10.0	8.46	13.6	15.1	51.4	66.4	200	10.0-160			10.5	32
Total Xylene	30.0	37.2	52.3	51.5	50.3	47.7	200	10.0-160			1.54	32
(S) a,a,a-Trifluorotoluene(FID)					*90.9*	*91.5*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*92.2*	*92.5*		*72.0-128*				

Method Blank (MB)

(MB) R3455799-1 09/30/19 00:08

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	*82.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3455799-2 09/30/19 00:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	50.0	43.5	87.0	50.0-150	
(S) o-Terphenyl			*101*	*18.0-148*	

Method Blank (MB)

(MB) R3456237-2 09/30/19 20:39

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	*58.9*			*14.0-149*
(S) 2-Fluorobiphenyl	*60.9*			*34.0-125*
(S) p-Terphenyl-d14	*59.0*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3456237-1 09/30/19 20:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0630	78.8	50.0-126	
Acenaphthene	0.0800	0.0546	68.3	50.0-120	
Acenaphthylene	0.0800	0.0607	75.9	50.0-120	
Benzo(a)anthracene	0.0800	0.0626	78.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0551	68.9	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0544	68.0	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0568	71.0	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0600	75.0	49.0-125	
Chrysene	0.0800	0.0580	72.5	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0558	69.8	47.0-125	
Fluoranthene	0.0800	0.0558	69.8	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3456237-1 09/30/19 20:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0563	70.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0570	71.3	46.0-125	
Naphthalene	0.0800	0.0507	63.4	50.0-120	
Phenanthrene	0.0800	0.0569	71.1	47.0-120	
Pyrene	0.0800	0.0595	74.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0548	68.5	51.0-121	
2-Methylnaphthalene	0.0800	0.0527	65.9	50.0-120	
2-Chloronaphthalene	0.0800	0.0529	66.1	50.0-120	
(S) Nitrobenzene-d5			*67.6*	*14.0-149*	
(S) 2-Fluorobiphenyl			*68.8*	*34.0-125*	
(S) p-Terphenyl-d14			*66.2*	*23.0-120*	

L1144008-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1144008-01 09/30/19 23:36 • (MS) R3456237-3 09/30/19 23:58 • (MSD) R3456237-4 10/01/19 00:20

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 %
Anthracene	0.0800	U	0.0576	0.0541	72.0	67.6	1	10.0-145			6.27	30
Acenaphthene	0.0800	U	0.0491	0.0464	61.4	58.0	1	14.0-127			5.65	27
Acenaphthylene	0.0800	U	0.0552	0.0516	69.0	64.5	1	21.0-124			6.74	25
Benzo(a)anthracene	0.0800	U	0.0541	0.0514	67.6	64.3	1	10.0-139			5.12	30
Benzo(a)pyrene	0.0800	U	0.0522	0.0498	65.3	62.3	1	10.0-141			4.71	31
Benzo(b)fluoranthene	0.0800	U	0.0499	0.0461	62.4	57.6	1	10.0-140			7.92	36
Benzo(g,h,i)perylene	0.0800	U	0.0491	0.0494	61.4	61.8	1	10.0-140			0.609	33
Benzo(k)fluoranthene	0.0800	U	0.0497	0.0494	62.1	61.8	1	10.0-137			0.605	31
Chrysene	0.0800	U	0.0518	0.0500	64.8	62.5	1	10.0-145			3.54	30
Dibenz(a,h)anthracene	0.0800	U	0.0492	0.0492	61.5	61.5	1	10.0-132			0.000	31
Fluoranthene	0.0800	U	0.0526	0.0503	65.8	62.9	1	10.0-153			4.47	33
Fluorene	0.0800	U	0.0502	0.0469	62.8	58.6	1	11.0-130			6.80	29
Indeno(1,2,3-cd)pyrene	0.0800	U	0.0496	0.0502	62.0	62.8	1	10.0-137			1.20	32
Naphthalene	0.0800	U	0.0450	0.0421	56.3	52.6	1	10.0-135			6.66	27
Phenanthrene	0.0800	U	0.0506	0.0476	63.3	59.5	1	10.0-144			6.11	31
Pyrene	0.0800	U	0.0554	0.0497	69.3	62.1	1	10.0-148			10.8	35
1-Methylnaphthalene	0.0800	U	0.0482	0.0448	60.3	56.0	1	10.0-142			7.31	28
2-Methylnaphthalene	0.0800	U	0.0475	0.0438	59.4	54.8	1	10.0-137			8.11	28
2-Chloronaphthalene	0.0800	U	0.0490	0.0459	61.3	57.4	1	29.0-120			6.53	24
(S) Nitrobenzene-d5					*60.9*	*57.1*		*14.0-149*				
(S) 2-Fluorobiphenyl					*62.7*	*57.9*		*34.0-125*				
(S) p-Terphenyl-d14					*60.8*	*54.1*		*23.0-120*				

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.
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.
T8	Sample(s) received past/too close to holding time expiration.

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* 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 [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

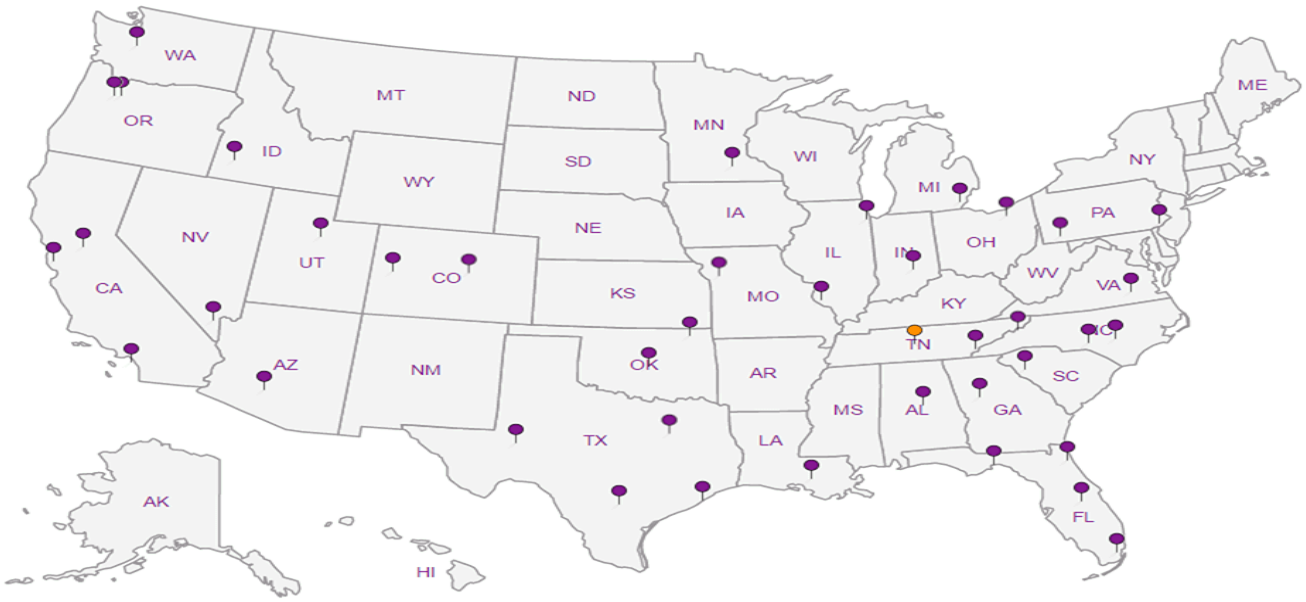
Third Party Federal Accreditations

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

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

Our Locations

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:
Entrada Consulting Group
330 Grand Avenue, Suite C
Grand Junction, CO 81501

Billing Information:
Direct Bill to Laramie Energy

Report to: **Stuart Hall**

Email To: **shall@entradainc.com**

Project Description: 17-2 Spill Response

City/State Collected: Collbran CO

Phone: **(970) 712-7329**
Fax:

Client Project #

Lab Project #

Collected by (print): Tim Dobransky

Site/Facility ID #

P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	COGCC Table 910-1										Rem./Contaminant	Sample # (lab only)
MWR 17-2 SS1	Grab	SS	0-6"	9/26/19	1015	3	X											01
MWR 17-2 SS2	~~Comp~~ Grab	SS	0-6"	9/26/19	1030	~~3~~	X											02

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other

RAD SCREEN: <0.5 mR/hr

pH ___ Temp ___
Flow ___ Other ___

Remarks:

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9/26/17	1630	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9/26/17	1700	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Kayla Mar

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ___
Temp: 7.3 °C Bottles Received: 6
0.9-1.2=0.8

Date: 9/27/19 Time: 8:45

Condition: (lab use only)

COC Seal Intact: ___Y ___N ✓NA

pH Checked: NCF:

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 1141054

Ta F199

Acctnum:

Template:

Prelogin:

TSR:

Cooler:

Shipped Via: