

Caerus Oil and Gas

Sample Delivery Group: L1282036
Samples Received: 11/05/2020
Project Number: N23
Description: N23
Site: N23
Report To: Brett Middleton
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:

Chris Ward

Chris Ward
Project Manager

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



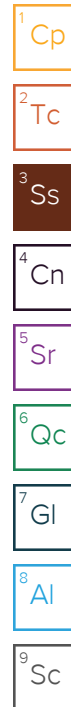
20201104-N23 POR 5' L1282036-01 Solid

Collected by
Matt Kasten

Collected date/time
11/04/20 10:30

Received date/time
11/05/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1571363	1	11/09/20 22:39	11/09/20 22:39	EL	Mt. Juliet, TN
Calculated Results	WG1572668	1	11/08/20 10:23	11/10/20 15:31	KPS	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1572841	1	11/07/20 15:07	11/10/20 15:31	KPS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1573396	1	11/10/20 09:03	11/10/20 15:48	KPS	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1574511	1	11/11/20 09:07	11/11/20 16:00	SRG	Mt. Juliet, TN
Mercury by Method 7471A	WG1572105	1	11/06/20 07:31	11/06/20 12:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1572668	1	11/08/20 10:23	11/08/20 22:17	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1572669	5	11/08/20 10:05	11/08/20 22:34	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1572307	100	11/06/20 11:56	11/06/20 15:18	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1572901	8	11/06/20 11:56	11/08/20 16:05	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1573122	10	11/08/20 17:55	11/09/20 08:00	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573125	1	11/09/20 21:55	11/10/20 05:32	JNJ	Mt. Juliet, TN



20201104-N23 W WALL 4' L1282036-02 Solid

Collected by
Matt Kasten

Collected date/time
11/04/20 10:35

Received date/time
11/05/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1571363	1	11/09/20 22:42	11/09/20 22:42	EL	Mt. Juliet, TN
Calculated Results	WG1572668	1	11/08/20 10:23	11/10/20 14:54	KPS	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1572841	1	11/07/20 15:07	11/10/20 14:54	KPS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1573198	1	11/08/20 20:18	11/08/20 23:35	KLS	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1572761	1	11/08/20 21:00	11/09/20 02:00	CAT	Mt. Juliet, TN
Mercury by Method 7471A	WG1572105	1	11/06/20 07:31	11/06/20 12:10	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1572668	1	11/08/20 10:23	11/08/20 22:46	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1572669	5	11/08/20 10:05	11/08/20 23:14	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1573096	100	11/06/20 11:56	11/09/20 19:22	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1572901	8	11/06/20 11:56	11/08/20 16:24	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1573122	10	11/08/20 17:55	11/09/20 11:02	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573125	1	11/09/20 21:55	11/10/20 05:56	JNJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573125	10	11/09/20 21:55	11/10/20 12:12	JNJ	Mt. Juliet, TN



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

Chris Ward
Project Manager

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	19.5		1	11/09/2020 22:39	WG1571363

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	11.1		2.00	1	11/10/2020 15:31	WG1572668

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	11/10/2020 15:31	WG1572841

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.57	T8	1	11/10/2020 15:48	WG1573396

Sample Narrative:

L1282036-01 WG1573396: 8.57 at 22.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1530		10.0	1	11/11/2020 16:00	WG1574511

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0400	1	11/06/2020 12:07	WG1572105

Metals (ICP) by Method 6010B

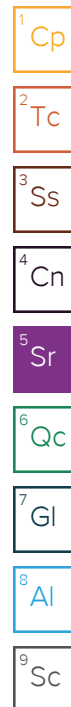
Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	397	J5 O1	0.500	1	11/08/2020 22:17	WG1572668
Cadmium	ND		0.500	1	11/08/2020 22:17	WG1572668
Chromium	11.4	O1	1.00	1	11/08/2020 22:17	WG1572668
Copper	9.76		2.00	1	11/08/2020 22:17	WG1572668
Lead	6.39		0.500	1	11/08/2020 22:17	WG1572668
Nickel	8.62		2.00	1	11/08/2020 22:17	WG1572668
Selenium	ND		2.00	1	11/08/2020 22:17	WG1572668
Silver	ND	O1	1.00	1	11/08/2020 22:17	WG1572668
Zinc	36.2		5.00	1	11/08/2020 22:17	WG1572668

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.42		1.00	5	11/08/2020 22:34	WG1572669

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	440		10.0	100	11/06/2020 15:18	WG1572307





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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	93.5		77.0-120		11/06/2020 15:18	WG1572307

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00800		0.00800	8	11/08/2020 16:05	WG1572901
Toluene	0.333		0.0400	8	11/08/2020 16:05	WG1572901
Ethylbenzene	0.621		0.0200	8	11/08/2020 16:05	WG1572901
Total Xylenes	24.2		0.0520	8	11/08/2020 16:05	WG1572901
(S) Toluene-d8	94.6		75.0-131		11/08/2020 16:05	WG1572901
(S) 4-Bromofluorobenzene	110		67.0-138		11/08/2020 16:05	WG1572901
(S) 1,2-Dichloroethane-d4	109		70.0-130		11/08/2020 16:05	WG1572901

Sample Narrative:

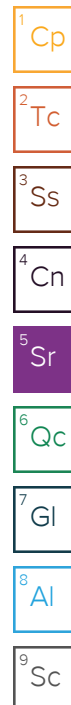
L1282036-01 WG1572901: Non-target compounds too high to run at a lower dilution.

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	202	J3 V	40.0	10	11/09/2020 08:00	WG1573122
(S) o-Terphenyl	45.1		18.0-148		11/09/2020 08:00	WG1573122

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	11/10/2020 05:32	WG1573125
Acenaphthene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Acenaphthylene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Benzo(a)anthracene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Benzo(a)pyrene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Benzo(b)fluoranthene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Benzo(g,h,i)perylene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Benzo(k)fluoranthene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Chrysene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Dibenz(a,h)anthracene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Fluoranthene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Fluorene	0.0312		0.00600	1	11/10/2020 05:32	WG1573125
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	11/10/2020 05:32	WG1573125
Naphthalene	0.289		0.0200	1	11/10/2020 05:32	WG1573125
Phenanthrene	0.0269		0.00600	1	11/10/2020 05:32	WG1573125
Pyrene	ND		0.00600	1	11/10/2020 05:32	WG1573125
1-Methylnaphthalene	0.373		0.0200	1	11/10/2020 05:32	WG1573125
2-Methylnaphthalene	0.928		0.0200	1	11/10/2020 05:32	WG1573125
2-Chloronaphthalene	ND		0.0200	1	11/10/2020 05:32	WG1573125
(S) p-Terphenyl-d14	63.1		23.0-120		11/10/2020 05:32	WG1573125
(S) Nitrobenzene-d5	106		14.0-149		11/10/2020 05:32	WG1573125
(S) 2-Fluorobiphenyl	64.5		34.0-125		11/10/2020 05:32	WG1573125





Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	15.4		1	11/09/2020 22:42	WG1571363

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium, Trivalent	11.8		1.00	1	11/10/2020 14:54	WG1572668

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	11/10/2020 14:54	WG1572841

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.96	T8	1	11/08/2020 23:35	WG1573198

Sample Narrative:

L1282036-02 WG1573198: 8.96 at 21.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1680		10.0	1	11/09/2020 02:00	WG1572761

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0400	1	11/06/2020 12:10	WG1572105

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	200		0.500	1	11/08/2020 22:46	WG1572668
Cadmium	ND		0.500	1	11/08/2020 22:46	WG1572668
Chromium	11.8		1.00	1	11/08/2020 22:46	WG1572668
Copper	8.58		2.00	1	11/08/2020 22:46	WG1572668
Lead	6.18		0.500	1	11/08/2020 22:46	WG1572668
Nickel	10.9		2.00	1	11/08/2020 22:46	WG1572668
Selenium	ND		2.00	1	11/08/2020 22:46	WG1572668
Silver	ND		1.00	1	11/08/2020 22:46	WG1572668
Zinc	30.9		5.00	1	11/08/2020 22:46	WG1572668

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.45		1.00	5	11/08/2020 23:14	WG1572669

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	503		10.0	100	11/09/2020 19:22	WG1573096



Collected date/time: 11/04/20 10:35

L1282036

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	92.4		77.0-120		11/09/2020 19:22	WG1573096

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00800	8	11/08/2020 16:24	WG1572901
Toluene	0.259		0.0400	8	11/08/2020 16:24	WG1572901
Ethylbenzene	0.413		0.0200	8	11/08/2020 16:24	WG1572901
Total Xylenes	13.7		0.0520	8	11/08/2020 16:24	WG1572901
(S) Toluene-d8	98.9		75.0-131		11/08/2020 16:24	WG1572901
(S) 4-Bromofluorobenzene	101		67.0-138		11/08/2020 16:24	WG1572901
(S) 1,2-Dichloroethane-d4	106		70.0-130		11/08/2020 16:24	WG1572901

Sample Narrative:

L1282036-02 WG1572901: Non-target compounds too high to run at a lower dilution.

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	858		40.0	10	11/09/2020 11:02	WG1573122
(S) o-Terphenyl	120		18.0-148		11/09/2020 11:02	WG1573122

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	11/10/2020 05:56	WG1573125
Acenaphthene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Acenaphthylene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Benzo(a)anthracene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Benzo(a)pyrene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Benzo(b)fluoranthene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Benzo(g,h,i)perylene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Benzo(k)fluoranthene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Chrysene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Dibenz(a,h)anthracene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Fluoranthene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Fluorene	0.152		0.00600	1	11/10/2020 05:56	WG1573125
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	11/10/2020 05:56	WG1573125
Naphthalene	1.90		0.200	10	11/10/2020 12:12	WG1573125
Phenanthrene	0.0851		0.00600	1	11/10/2020 05:56	WG1573125
Pyrene	0.00610		0.00600	1	11/10/2020 05:56	WG1573125
1-Methylnaphthalene	4.44		0.200	10	11/10/2020 12:12	WG1573125
2-Methylnaphthalene	3.75		0.200	10	11/10/2020 12:12	WG1573125
2-Chloronaphthalene	ND		0.0200	1	11/10/2020 05:56	WG1573125
(S) p-Terphenyl-d14	70.5		23.0-120		11/10/2020 05:56	WG1573125
(S) p-Terphenyl-d14	71.6		23.0-120		11/10/2020 12:12	WG1573125
(S) Nitrobenzene-d5	2130	J1	14.0-149		11/10/2020 12:12	WG1573125
(S) Nitrobenzene-d5	0.000	J2	14.0-149		11/10/2020 05:56	WG1573125
(S) 2-Fluorobiphenyl	78.2		34.0-125		11/10/2020 05:56	WG1573125
(S) 2-Fluorobiphenyl	60.4		34.0-125		11/10/2020 12:12	WG1573125

Sample Narrative:

L1282036-02 WG1573125: Surrogate failure due to matrix interference



Method Blank (MB)

(MB) R3591496-1 11/10/20 14:38

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1280984-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1280984-23 11/10/20 14:40 • (DUP) R3591496-3 11/10/20 14:41

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chromium,Hexavalent	ND	2.32	1	15.2		20

L1282036-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1282036-02 11/10/20 14:54 • (DUP) R3591496-8 11/10/20 14:54

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

Laboratory Control Sample (LCS)

(LCS) R3591496-2 11/10/20 14:39

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chromium,Hexavalent	24.0	26.0	109	80.0-120	

L1281435-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1281435-01 11/10/20 14:50 • (MS) R3591496-4 11/10/20 14:51 • (MSD) R3591496-5 11/10/20 14:52

	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	ND	10.1	10.6	50.6	52.8	1	75.0-125	J6	J6	4.26	20

Sample Narrative:

OS: sample is a reducer



L1281435-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1281435-01 11/10/20 14:50 • (MS) R3591496-6 11/10/20 14:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chromium,Hexavalent	662	ND	650	98.1	50	75.0-125	

Sample Narrative:

OS: sample is a reducer

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1280736-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1280736-01 11/08/20 23:35 • (DUP) R3590951-2 11/08/20 23:35

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.50	7.52	1	0.266		1

Sample Narrative:
OS: 7.5 at 22.3C
DUP: 7.52 at 21.9C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1282036-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1282036-02 11/08/20 23:35 • (DUP) R3590951-3 11/08/20 23:35

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.96	8.94	1	0.223		1

Sample Narrative:
OS: 8.96 at 21.1C
DUP: 8.94 at 21.1C

Laboratory Control Sample (LCS)

(LCS) R3590951-1 11/08/20 23:35

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:
LCS: 9.98 at 20.6C

L1277200-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1277200-01 11/10/20 15:48 • (DUP) R3591520-2 11/10/20 15:48

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	4.63	4.59	1	0.868		1

Sample Narrative:
OS: 4.63 at 23.5C
DUP: 4.59 at 23.3C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1279317-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1279317-12 11/10/20 15:48 • (DUP) R3591520-3 11/10/20 15:48

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.12	8.08	1	0.494		1

Sample Narrative:
OS: 8.12 at 22.5C
DUP: 8.08 at 22.6C

Laboratory Control Sample (LCS)

(LCS) R3591520-1 11/10/20 15:48

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:
LCS: 9.99 at 21.2C

Method Blank (MB)

(MB) R3590736-1 11/09/20 02:00

	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

L1281433-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1281433-09 11/09/20 02:00 • (DUP) R3590736-3 11/09/20 02:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	umhos/cm	umhos/cm		%		%
Specific Conductance	38.9	36.3	1	6.91		20

L1281435-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1281435-01 11/09/20 02:00 • (DUP) R3590736-4 11/09/20 02:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	umhos/cm	umhos/cm		%		%
Specific Conductance	476	471	1	1.06		20

Laboratory Control Sample (LCS)

(LCS) R3590736-2 11/09/20 02:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	umhos/cm	umhos/cm	%	%	
Specific Conductance	483	479	99.2	85.0-115	

Method Blank (MB)

(MB) R3591986-1 11/11/20 16:00

Analyte	MB Result umhos/cm	<u>MB Qualifier</u>	MB MDL umhos/cm	MB RDL 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

Laboratory Control Sample (LCS)

(LCS) R3591986-2 11/11/20 16:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Specific Conductance	483	488	101	85.0-115	



Method Blank (MB)

(MB) R3590176-1 11/06/20 11:06

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0180	0.0400

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS)

(LCS) R3590176-2 11/06/20 11:08

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Mercury	0.500	0.455	91.0	80.0-120	

⁷Gl

⁸Al

⁹Sc

L1281715-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1281715-05 11/06/20 11:11 • (MS) R3590176-3 11/06/20 11:14 • (MSD) R3590176-4 11/06/20 11:16

	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	%	%		%			%	%
Mercury	0.500	ND	0.440	0.459	88.0	91.7	1	75.0-125			4.07	20



Method Blank (MB)

(MB) R3590771-1 11/08/20 22:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Zinc	U		0.832	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3590771-2 11/08/20 22:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	100	100	80.0-120	
Cadmium	100	96.4	96.4	80.0-120	
Chromium	100	98.7	98.7	80.0-120	
Copper	100	96.8	96.8	80.0-120	
Lead	100	96.5	96.5	80.0-120	
Nickel	100	98.4	98.4	80.0-120	
Selenium	100	97.4	97.4	80.0-120	
Silver	20.0	18.2	91.2	80.0-120	
Zinc	100	96.7	96.7	80.0-120	

L1282036-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282036-01 11/08/20 22:17 • (MS) R3590771-5 11/08/20 22:24 • (MSD) R3590771-6 11/08/20 22:27

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 %
Barium	100	397	552	551	155	154	1	75.0-125	J5	J5	0.0982	20
Cadmium	100	ND	88.3	97.7	87.9	97.3	1	75.0-125			10.1	20
Chromium	100	11.4	107	110	95.9	99.0	1	75.0-125			2.90	20
Copper	100	9.76	104	108	94.5	97.8	1	75.0-125			3.11	20
Lead	100	6.39	101	106	95.1	99.8	1	75.0-125			4.56	20
Nickel	100	8.62	111	114	103	106	1	75.0-125			2.41	20
Selenium	100	ND	86.8	96.1	86.8	96.1	1	75.0-125			10.2	20
Silver	20.0	ND	17.0	18.6	85.0	92.9	1	75.0-125			8.82	20
Zinc	100	36.2	129	125	92.6	88.4	1	75.0-125			3.28	20



Method Blank (MB)

(MB) R3590720-1 11/08/20 22:28

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Arsenic	U		0.100	1.00

Laboratory Control Sample (LCS)

(LCS) R3590720-2 11/08/20 22:31

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Arsenic	100	95.9	95.9	80.0-120	

L1282036-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282036-01 11/08/20 22:34 • (MS) R3590720-5 11/08/20 22:44 • (MSD) R3590720-6 11/08/20 22:47

	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	%	%		%			%	%
Arsenic	20.0	4.42	89.8	97.8	85.4	93.3	5	75.0-125			8.49	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3590629-2 11/06/20 13:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0281	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	95.8			77.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3590629-1 11/06/20 12:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.65	103	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			104	77.0-120	

L1281123-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1281123-03 11/06/20 19:25 • (MS) R3590629-3 11/06/20 21:09 • (MSD) R3590629-4 11/06/20 21:30

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	106	ND	107	113	100	106	25	10.0-151			5.45	28
(S) a,a,a-Trifluorotoluene(FID)					105	111		77.0-120				



Method Blank (MB)

(MB) R3591361-2 11/09/20 10:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0306	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	89.4			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3591361-1 11/09/20 10:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
TPH (GC/FID) Low Fraction	5.50	6.06	110	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			109	77.0-120	

¹Cp ${}^2\text{Tc}$ 3S_S ${}^4\text{Cn}$ ${}^5\text{Sr}$ ${}^6\text{Qc}$

GI

 ${}^8\text{Al}$ ⁹Sc



Method Blank (MB)

(MB) R3591242-3 11/08/20 10:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	101			75.0-131
(S) 4-Bromofluorobenzene	101			67.0-138
(S) 1,2-Dichloroethane-d4	110			70.0-130

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

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

(LCS) R3591242-1 11/08/20 08:51 • (LCSD) R3591242-2 11/08/20 09:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.134	0.138	107	110	70.0-123			2.94	20
Ethylbenzene	0.125	0.112	0.123	89.6	98.4	74.0-126			9.36	20
Toluene	0.125	0.114	0.125	91.2	100	75.0-121			9.21	20
Xylenes, Total	0.375	0.347	0.367	92.5	97.9	72.0-127			5.60	20
(S) Toluene-d8				96.4	98.1	75.0-131				
(S) 4-Bromofluorobenzene				97.9	99.2	67.0-138				
(S) 1,2-Dichloroethane-d4				114	111	70.0-130				

L1280256-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1280256-01 11/08/20 10:26 • (MS) R3591242-4 11/08/20 16:43 • (MSD) R3591242-5 11/08/20 17:02

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	25.0	2.12	31.9	26.8	119	98.7	200	10.0-149			17.4	37
Ethylbenzene	25.0	1.86	28.6	24.1	107	89.0	200	10.0-160			17.1	38
Toluene	25.0	6.53	31.6	27.0	100	81.9	200	10.0-156			15.7	38
Xylenes, Total	75.0	9.31	89.2	76.8	107	90.0	200	10.0-160			14.9	38
(S) Toluene-d8					101	101		75.0-131				
(S) 4-Bromofluorobenzene					102	104		67.0-138				
(S) 1,2-Dichloroethane-d4					110	112		70.0-130				



Method Blank (MB)

(MB) R3591180-1 11/09/20 04:05

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	73.9			18.0-148

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3591180-2 11/09/20 04:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	50.0	39.4	78.8	50.0-150	
(S) o-Terphenyl			76.6	18.0-148	

L1282036-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282036-01 11/09/20 08:00 • (MS) R3591180-3 11/09/20 08:12 • (MSD) R3591180-4 11/09/20 08:25

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	48.8	202	325	186	252	0.000	10	50.0-150	V	J3 V	54.4	20
(S) o-Terphenyl					106	68.7		18.0-148				

Method Blank (MB)

(MB) R3591327-2 11/10/20 03:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	70.7			14.0-149
(S) 2-Fluorobiphenyl	60.1			34.0-125
(S) p-Terphenyl-d14	73.7			23.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3591327-1 11/10/20 02:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0806	101	50.0-126	
Acenaphthene	0.0800	0.0808	101	50.0-120	
Acenaphthylene	0.0800	0.0802	100	50.0-120	
Benzo(a)anthracene	0.0800	0.0825	103	45.0-120	
Benzo(a)pyrene	0.0800	0.0785	98.1	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0805	101	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0812	102	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0902	113	49.0-125	
Chrysene	0.0800	0.0867	108	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0804	101	47.0-125	
Fluoranthene	0.0800	0.0793	99.1	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3591327-1 11/10/20 02:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0807	101	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0838	105	46.0-125	
Naphthalene	0.0800	0.0728	91.0	50.0-120	
Phenanthrene	0.0800	0.0799	99.9	47.0-120	
Pyrene	0.0800	0.0910	114	43.0-123	
1-Methylnaphthalene	0.0800	0.0854	107	51.0-121	
2-Methylnaphthalene	0.0800	0.0796	99.5	50.0-120	
2-Chloronaphthalene	0.0800	0.0767	95.9	50.0-120	
(S) Nitrobenzene-d5			64.6	14.0-149	
(S) 2-Fluorobiphenyl			56.4	34.0-125	
(S) p-Terphenyl-d14			62.6	23.0-120	

L1282227-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282227-02 11/10/20 06:43 • (MS) R3591327-3 11/10/20 07:06 • (MSD) R3591327-4 11/10/20 07:30

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	0.0780	ND	0.0669	0.0750	85.8	93.8	1	10.0-145			11.4	30
Acenaphthene	0.0780	ND	0.0622	0.0697	79.7	87.1	1	14.0-127			11.4	27
Acenaphthylene	0.0780	ND	0.0671	0.0755	86.0	94.4	1	21.0-124			11.8	25
Benzo(a)anthracene	0.0780	ND	0.0726	0.0777	93.1	97.1	1	10.0-139			6.79	30
Benzo(a)pyrene	0.0780	ND	0.0792	0.0771	102	96.4	1	10.0-141			2.69	31
Benzo(b)fluoranthene	0.0780	ND	0.0753	0.0750	93.7	91.0	1	10.0-140			0.399	36
Benzo(g,h,i)perylene	0.0780	ND	0.0782	0.0781	97.7	95.2	1	10.0-140			0.128	33
Benzo(k)fluoranthene	0.0780	ND	0.0756	0.0811	96.9	101	1	10.0-137			7.02	31
Chrysene	0.0780	ND	0.0785	0.0811	101	101	1	10.0-145			3.26	30
Dibenz(a,h)anthracene	0.0780	ND	0.0683	0.0730	87.6	91.3	1	10.0-132			6.65	31
Fluoranthene	0.0780	ND	0.0663	0.0730	85.0	91.3	1	10.0-153			9.62	33
Fluorene	0.0780	ND	0.0622	0.0717	79.7	89.6	1	11.0-130			14.2	29
Indeno(1,2,3-cd)pyrene	0.0780	ND	0.0757	0.0773	97.1	96.6	1	10.0-137			2.09	32
Naphthalene	0.0780	ND	0.0828	0.0745	101	87.7	1	10.0-135			10.6	27
Phenanthrene	0.0780	ND	0.0629	0.0711	80.6	88.9	1	10.0-144			12.2	31
Pyrene	0.0780	ND	0.0749	0.0776	96.0	97.0	1	10.0-148			3.54	35
1-Methylnaphthalene	0.0780	ND	0.0987	0.0915	114	102	1	10.0-142			7.57	28
2-Methylnaphthalene	0.0780	ND	0.117	0.0933	134	101	1	10.0-137			22.5	28
2-Chloronaphthalene	0.0780	ND	0.0621	0.0705	79.6	88.1	1	29.0-120			12.7	24
(S) Nitrobenzene-d5					72.4	83.5		14.0-149				
(S) 2-Fluorobiphenyl					62.1	71.6		34.0-125				
(S) p-Terphenyl-d14					65.7	69.3		23.0-120				

1

Cp

2

Tc

3

Ss

4

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



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

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.
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.
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.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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 ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	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.



