

October 03, 2024

Caerus Oil and Gas

Sample Delivery Group: L1782583
Samples Received: 09/27/2024
Project Number:
Description: EL12 Remediation

Report To: Jake J. / Brett M. / Blair R. / Andy V.
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward
Project Manager

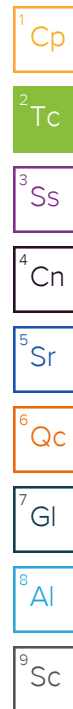
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Pace Analytical National

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SAMPLE SUMMARY

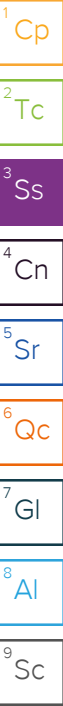
20240925-EL12 697-(FC-T-BASE01) @ 22 L1782583-01 Solid

Collected by
M. Schlageter

Collected date/time
09/25/24 10:50

Received date/time
09/27/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2373462	1	10/02/24 13:52	10/02/24 13:52	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2372200	1	09/30/24 14:08	10/01/24 01:57	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2374289	1	10/02/24 14:33	10/02/24 22:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2374317	1	10/02/24 14:41	10/02/24 21:20	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2373488	1	10/01/24 21:42	10/02/24 03:23	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2371809	5	09/30/24 08:44	09/30/24 19:04	UNP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2372527	1	09/29/24 11:06	09/30/24 13:50	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2372813	1	09/29/24 11:06	10/01/24 01:00	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2372010	1	09/29/24 10:45	09/29/24 23:16	NH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2372019	1	09/30/24 13:50	09/30/24 23:50	MBE	Mt. Juliet, TN



20240925-EL12 697-(FC-T-BASE02) @ 22 L1782583-02 Solid

Collected by
M. Schlageter

Collected date/time
09/25/24 11:00

Received date/time
09/27/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2373462	1	10/02/24 13:53	10/02/24 13:53	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2372200	1	09/30/24 14:08	10/01/24 02:04	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2374289	1	10/02/24 14:33	10/02/24 22:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2374317	1	10/02/24 14:41	10/02/24 21:20	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2373488	1	10/01/24 21:42	10/02/24 03:25	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2371809	25	09/30/24 08:44	09/30/24 20:07	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2371809	5	09/30/24 08:44	09/30/24 19:19	UNP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2372856	1	09/29/24 11:06	10/01/24 00:25	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2372813	1	09/29/24 11:06	10/01/24 01:19	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2372010	1	09/29/24 10:45	09/29/24 22:44	NH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2372019	1	09/30/24 13:50	10/01/24 00:09	MBE	Mt. Juliet, TN

20240925-EL12 697-(FC-T-NW02) @ 16 L1782583-03 Solid

Collected by
M. Schlageter

Collected date/time
09/25/24 10:00

Received date/time
09/27/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2373462	1	10/02/24 13:55	10/02/24 13:55	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2372200	1	09/30/24 14:08	10/01/24 02:10	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2374289	1	10/02/24 14:33	10/02/24 22:15	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2374317	1	10/02/24 14:41	10/02/24 21:20	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2373488	1	10/01/24 21:42	10/02/24 03:26	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2371809	5	09/30/24 08:44	09/30/24 19:22	UNP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2372856	1	09/29/24 11:06	10/01/24 00:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2372813	1	09/29/24 11:06	10/01/24 01:38	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2372010	1	09/29/24 10:45	09/29/24 22:57	NH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2372019	1	09/30/24 13:50	10/01/24 00:29	MBE	Mt. Juliet, TN

CASE NARRATIVE

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	0.700		1	10/02/2024 13:52	WG2373462

1
Cp

2
Tc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.752	J	0.255	1.00	1	10/01/2024 01:57	WG2372200

3
Ss

4
Cn

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.03	T8	1	10/02/2024 22:15	WG2374289

5
Sr

6
Qc

Sample Narrative:

L1782583-01 WG2374289: 7.03 at 19.9C

7
Gl

Wet Chemistry by Method 9050AMod

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	595	umhos/cm		10.0	1	10/02/2024 21:20	WG2374317

8
Al

Sample Narrative:

L1782583-01 WG2374317: at 25C

9
Sc

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.381		0.0167	0.200	1	10/02/2024 03:23	WG2373488

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	13.9		0.100	1.00	5	09/30/2024 19:04	WG2371809
Barium	197		0.152	2.50	5	09/30/2024 19:04	WG2371809
Cadmium	0.161	J	0.0855	1.00	5	09/30/2024 19:04	WG2371809
Copper	17.2		0.132	5.00	5	09/30/2024 19:04	WG2371809
Lead	12.2		0.0990	2.00	5	09/30/2024 19:04	WG2371809
Nickel	16.7		0.197	2.50	5	09/30/2024 19:04	WG2371809
Selenium	0.558	J	0.180	2.50	5	09/30/2024 19:04	WG2371809
Silver	U		0.0865	0.500	5	09/30/2024 19:04	WG2371809
Zinc	50.4		0.740	25.0	5	09/30/2024 19:04	WG2371809

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0250	J	0.0217	0.100	1	09/30/2024 13:50	WG2372527
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		09/30/2024 13:50	WG2372527

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/01/2024 01:00	WG2372813
Toluene	U		0.00130	0.00500	1	10/01/2024 01:00	WG2372813
Ethylbenzene	U		0.000737	0.00250	1	10/01/2024 01:00	WG2372813
Xylenes, Total	0.000950	J	0.000880	0.00650	1	10/01/2024 01:00	WG2372813
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/01/2024 01:00	WG2372813
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/01/2024 01:00	WG2372813
(S) Toluene-d8	102			75.0-131		10/01/2024 01:00	WG2372813
(S) 4-Bromofluorobenzene	103			67.0-138		10/01/2024 01:00	WG2372813
(S) 1,2-Dichloroethane-d4	81.4			70.0-130		10/01/2024 01:00	WG2372813

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	6.39		1.61	4.00	1	09/29/2024 23:16	WG2372010
C28-C36 Motor Oil Range	30.8		0.274	4.00	1	09/29/2024 23:16	WG2372010
(S) o-Terphenyl	53.6			18.0-148		09/29/2024 23:16	WG2372010

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	09/30/2024 23:50	WG2372019
Anthracene	U		0.00230	0.00600	1	09/30/2024 23:50	WG2372019
Benzo(a)anthracene	U		0.00173	0.00600	1	09/30/2024 23:50	WG2372019
Benzo(b)fluoranthene	U		0.00153	0.00600	1	09/30/2024 23:50	WG2372019
Benzo(k)fluoranthene	U		0.00215	0.00600	1	09/30/2024 23:50	WG2372019
Benzo(a)pyrene	U		0.00179	0.00600	1	09/30/2024 23:50	WG2372019
Chrysene	U		0.00232	0.00600	1	09/30/2024 23:50	WG2372019
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	09/30/2024 23:50	WG2372019
Fluoranthene	U		0.00227	0.00600	1	09/30/2024 23:50	WG2372019
Fluorene	U		0.00205	0.00600	1	09/30/2024 23:50	WG2372019
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	09/30/2024 23:50	WG2372019
1-Methylnaphthalene	U		0.00449	0.0200	1	09/30/2024 23:50	WG2372019
2-Methylnaphthalene	0.00741	J	0.00427	0.0200	1	09/30/2024 23:50	WG2372019
Naphthalene	U		0.00408	0.0200	1	09/30/2024 23:50	WG2372019
Pyrene	U		0.00200	0.00600	1	09/30/2024 23:50	WG2372019
(S) p-Terphenyl-d14	88.7			23.0-120		09/30/2024 23:50	WG2372019
(S) Nitrobenzene-d5	87.2			14.0-149		09/30/2024 23:50	WG2372019
(S) 2-Fluorobiphenyl	91.7			34.0-125		09/30/2024 23:50	WG2372019

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

	Result	Qualifier	Dilution	Analysis date / time	Batch
Analyte	SAR				
Sodium Adsorption Ratio	0.454		1	10/02/2024 13:53	WG2373462

Wet Chemistry by Method 7199

	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Analyte							
Hexavalent Chromium	U		0.255	1.00	1	10/01/2024 02:04	WG2372200

Wet Chemistry by Method 9045D

	Result	Qualifier	Dilution	Analysis date / time	Batch
Analyte	pH				
pH	7.38	T8	1	10/02/2024 22:15	WG2374289

Sample Narrative:
L1782583-02 WG2374289: 7.38 at 19.9C

Wet Chemistry by Method 9050AMod

	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Analyte							
Specific Conductance	316	umhos/cm		10.0	1	10/02/2024 21:20	WG2374317

Sample Narrative:
L1782583-02 WG2374317: at 25C

Metals (ICP) by Method 6010B-NE493 Ch 2

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte	mg/l		mg/l	mg/l			
Hot Water Sol. Boron	0.385		0.0167	0.200	1	10/02/2024 03:25	WG2373488

Metals (ICPMS) by Method 6020

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte	mg/kg		mg/kg	mg/kg			
Arsenic	11.5		0.100	1.00	5	09/30/2024 19:19	WG2371809
Barium	272		0.760	12.5	25	09/30/2024 20:07	WG2371809
Cadmium	0.277	J	0.0855	1.00	5	09/30/2024 19:19	WG2371809
Copper	19.6		0.132	5.00	5	09/30/2024 19:19	WG2371809
Lead	13.5		0.0990	2.00	5	09/30/2024 19:19	WG2371809
Nickel	19.9		0.197	2.50	5	09/30/2024 19:19	WG2371809
Selenium	0.538	J	0.180	2.50	5	09/30/2024 19:19	WG2371809
Silver	0.0934	J	0.0865	0.500	5	09/30/2024 19:19	WG2371809
Zinc	56.7		0.740	25.0	5	09/30/2024 19:19	WG2371809

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte	mg/kg		mg/kg	mg/kg			
TPH (GC/FID) Low Fraction	0.0301	J	0.0217	0.100	1	10/01/2024 00:25	WG2372856
(S) a,a,a-Trifluorotoluene(FID)	96.7			77.0-120		10/01/2024 00:25	WG2372856

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/01/2024 01:19	WG2372813
Toluene	U		0.00130	0.00500	1	10/01/2024 01:19	WG2372813
Ethylbenzene	U		0.000737	0.00250	1	10/01/2024 01:19	WG2372813
Xylenes, Total	U		0.000880	0.00650	1	10/01/2024 01:19	WG2372813
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/01/2024 01:19	WG2372813
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/01/2024 01:19	WG2372813
(S) Toluene-d8	99.6			75.0-131		10/01/2024 01:19	WG2372813
(S) 4-Bromofluorobenzene	101			67.0-138		10/01/2024 01:19	WG2372813
(S) 1,2-Dichloroethane-d4	82.6			70.0-130		10/01/2024 01:19	WG2372813

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	11.5		1.61	4.00	1	09/29/2024 22:44	WG2372010
C28-C36 Motor Oil Range	37.0		0.274	4.00	1	09/29/2024 22:44	WG2372010
(S) o-Terphenyl	42.6			18.0-148		09/29/2024 22:44	WG2372010

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	10/01/2024 00:09	WG2372019
Anthracene	U		0.00230	0.00600	1	10/01/2024 00:09	WG2372019
Benzo(a)anthracene	U		0.00173	0.00600	1	10/01/2024 00:09	WG2372019
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/01/2024 00:09	WG2372019
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/01/2024 00:09	WG2372019
Benzo(a)pyrene	U		0.00179	0.00600	1	10/01/2024 00:09	WG2372019
Chrysene	U		0.00232	0.00600	1	10/01/2024 00:09	WG2372019
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/01/2024 00:09	WG2372019
Fluoranthene	U		0.00227	0.00600	1	10/01/2024 00:09	WG2372019
Fluorene	U		0.00205	0.00600	1	10/01/2024 00:09	WG2372019
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/01/2024 00:09	WG2372019
1-Methylnaphthalene	U		0.00449	0.0200	1	10/01/2024 00:09	WG2372019
2-Methylnaphthalene	0.00636	U	0.00427	0.0200	1	10/01/2024 00:09	WG2372019
Naphthalene	0.00553	U	0.00408	0.0200	1	10/01/2024 00:09	WG2372019
Pyrene	U		0.00200	0.00600	1	10/01/2024 00:09	WG2372019
(S) p-Terphenyl-d14	63.5			23.0-120		10/01/2024 00:09	WG2372019
(S) Nitrobenzene-d5	65.2			14.0-149		10/01/2024 00:09	WG2372019
(S) 2-Fluorobiphenyl	61.9			34.0-125		10/01/2024 00:09	WG2372019

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.672		1	10/02/2024 13:55	WG2373462

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.341	J	0.255	1.00	1	10/01/2024 02:10	WG2372200

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.45	T8	1	10/02/2024 22:15	WG2374289

Sample Narrative:
L1782583-03 WG2374289: 7.45 at 19.9C

Wet Chemistry by Method 9050AMod

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	130	umhos/cm		10.0	1	10/02/2024 21:20	WG2374317

Sample Narrative:
L1782583-03 WG2374317: at 25C

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.232		0.0167	0.200	1	10/02/2024 03:26	WG2373488

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	11.1		0.100	1.00	5	09/30/2024 19:22	WG2371809
Barium	180		0.152	2.50	5	09/30/2024 19:22	WG2371809
Cadmium	0.175	J	0.0855	1.00	5	09/30/2024 19:22	WG2371809
Copper	11.5		0.132	5.00	5	09/30/2024 19:22	WG2371809
Lead	11.8		0.0990	2.00	5	09/30/2024 19:22	WG2371809
Nickel	14.7		0.197	2.50	5	09/30/2024 19:22	WG2371809
Selenium	0.416	J	0.180	2.50	5	09/30/2024 19:22	WG2371809
Silver	U		0.0865	0.500	5	09/30/2024 19:22	WG2371809
Zinc	41.8		0.740	25.0	5	09/30/2024 19:22	WG2371809

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0276	J	0.0217	0.100	1	10/01/2024 00:48	WG2372856
(S) a,a,a-Trifluorotoluene(FID)	96.5			77.0-120		10/01/2024 00:48	WG2372856

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/01/2024 01:38	WG2372813
Toluene	U		0.00130	0.00500	1	10/01/2024 01:38	WG2372813
Ethylbenzene	U		0.000737	0.00250	1	10/01/2024 01:38	WG2372813
Xylenes, Total	U		0.000880	0.00650	1	10/01/2024 01:38	WG2372813
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/01/2024 01:38	WG2372813
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/01/2024 01:38	WG2372813
(S) Toluene-d8	102			75.0-131		10/01/2024 01:38	WG2372813
(S) 4-Bromofluorobenzene	103			67.0-138		10/01/2024 01:38	WG2372813
(S) 1,2-Dichloroethane-d4	81.9			70.0-130		10/01/2024 01:38	WG2372813

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5.36		1.61	4.00	1	09/29/2024 22:57	WG2372010
C28-C36 Motor Oil Range	27.5		0.274	4.00	1	09/29/2024 22:57	WG2372010
(S) o-Terphenyl	60.2			18.0-148		09/29/2024 22:57	WG2372010

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	10/01/2024 00:29	WG2372019
Anthracene	U		0.00230	0.00600	1	10/01/2024 00:29	WG2372019
Benzo(a)anthracene	U		0.00173	0.00600	1	10/01/2024 00:29	WG2372019
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/01/2024 00:29	WG2372019
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/01/2024 00:29	WG2372019
Benzo(a)pyrene	U		0.00179	0.00600	1	10/01/2024 00:29	WG2372019
Chrysene	U		0.00232	0.00600	1	10/01/2024 00:29	WG2372019
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/01/2024 00:29	WG2372019
Fluoranthene	U		0.00227	0.00600	1	10/01/2024 00:29	WG2372019
Fluorene	U		0.00205	0.00600	1	10/01/2024 00:29	WG2372019
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/01/2024 00:29	WG2372019
1-Methylnaphthalene	0.00479	U	0.00449	0.0200	1	10/01/2024 00:29	WG2372019
2-Methylnaphthalene	0.0148	U	0.00427	0.0200	1	10/01/2024 00:29	WG2372019
Naphthalene	0.00925	U	0.00408	0.0200	1	10/01/2024 00:29	WG2372019
Pyrene	U		0.00200	0.00600	1	10/01/2024 00:29	WG2372019
(S) p-Terphenyl-d14	94.2			23.0-120		10/01/2024 00:29	WG2372019
(S) Nitrobenzene-d5	89.1			14.0-149		10/01/2024 00:29	WG2372019
(S) 2-Fluorobiphenyl	89.4			34.0-125		10/01/2024 00:29	WG2372019

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4126490-1 10/01/24 00:10

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Hexavalent Chromium	U		0.255	1.00

L1781560-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1781560-06 10/01/24 00:56 • (DUP) R4126490-3 10/01/24 01:02

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

L1782352-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1782352-01 10/01/24 01:39 • (DUP) R4126490-4 10/01/24 01:45

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	0.440	0.382	1	14.2	⬇	20

Laboratory Control Sample (LCS)

(LCS) R4126490-2 10/01/24 00:18

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	10.6	106	80.0-120	

L1782631-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1782631-03 10/01/24 02:41 • (MS) R4126490-5 10/01/24 02:47 • (MSD) R4126490-6 10/01/24 02:53

	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	%	%		%			%	%
Hexavalent Chromium	20.0	U	18.0	18.3	90.0	91.7	1	75.0-125			1.80	20

L1782631-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1782631-03 10/01/24 02:41 • (MS) R4126490-7 10/01/24 02:59

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	643	U	584	90.8	50	75.0-125	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1780661-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1780661-02 10/02/24 22:15 • (DUP) R4127662-2 10/02/24 22:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.87	8.83	1	0.452		1

Sample Narrative:

OS: 8.87 at 20.6C

DUP: 8.83 at 20.6C

L1782631-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1782631-03 10/02/24 22:15 • (DUP) R4127662-3 10/02/24 22:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.88	8.90	1	0.225		1

Sample Narrative:

OS: 8.88 at 19.1C

DUP: 8.9 at 18.9C

Laboratory Control Sample (LCS)

(LCS) R4127662-1 10/02/24 22:15

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	9.97	99.7	99.0-101	

Sample Narrative:

LCS: 9.97 at 19.1C



Method Blank (MB)

(MB) R4127633-1 10/02/24 21:20

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

Sample Narrative:

BLANK: at 25C

L1782049-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1782049-05 10/02/24 21:20 • (DUP) R4127633-3 10/02/24 21:20

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	73.7	73.3	1	0.544		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1782631-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1782631-02 10/02/24 21:20 • (DUP) R4127633-4 10/02/24 21:20

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	357	358	1	0.280		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4127633-2 10/02/24 21:20

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	699	95.4	85.0-115	

Sample Narrative:

LCS: at 25C

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4127059-1 10/02/24 03:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	U		0.0167	0.200

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

(LCS) R4127059-2 10/02/24 03:18 • (LCSD) R4127059-3 10/02/24 03:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.02	1.02	102	102	80.0-120			0.336	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R4126421-1 09/30/24 17:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Copper	U		0.133	5.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

Laboratory Control Sample (LCS)

(LCS) R4126421-2 09/30/24 17:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	95.8	95.8	80.0-120	
Barium	100	94.4	94.4	80.0-120	
Cadmium	100	94.3	94.3	80.0-120	
Copper	100	96.8	96.8	80.0-120	
Lead	100	91.5	91.5	80.0-120	
Nickel	100	99.9	99.9	80.0-120	
Selenium	100	93.8	93.8	80.0-120	
Silver	20.0	19.2	96.1	80.0-120	
Zinc	100	96.0	96.0	80.0-120	

L1782631-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1782631-04 09/30/24 17:56 • (MS) R4126421-5 09/30/24 18:05 • (MSD) R4126421-6 09/30/24 18:09

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	6.34	98.2	103	91.9	96.6	5	75.0-125			4.70	20
Barium	100	127	221	232	93.7	104	5	75.0-125	E	E	4.74	20
Cadmium	100	0.132	93.5	97.7	93.4	97.6	5	75.0-125			4.44	20
Copper	100	13.5	104	108	90.3	94.8	5	75.0-125			4.29	20
Lead	100	11.2	100	106	89.1	94.4	5	75.0-125			5.11	20
Nickel	100	12.9	106	111	93.5	98.0	5	75.0-125			4.12	20
Selenium	100	0.639	91.9	96.6	91.2	96.0	5	75.0-125			5.01	20
Silver	20.0	U	19.0	20.2	94.8	101	5	75.0-125			6.24	20
Zinc	100	49.0	133	139	84.1	90.1	5	75.0-125			4.36	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4126765-2 09/30/24 11:38

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)	97.9			77.0-120

Laboratory Control Sample (LCS)

(LCS) R4126765-1 09/30/24 10:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	5.05	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			105	77.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4126767-2 09/30/24 22:23

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)	98.2			77.0-120

Laboratory Control Sample (LCS)

(LCS) R4126767-1 09/30/24 21:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	5.07	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			108	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4127090-2 09/30/24 22:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	101			75.0-131
(S) 4-Bromofluorobenzene	102			67.0-138
(S) 1,2-Dichloroethane-d4	83.8			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4127090-1 09/30/24 21:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.134	107	70.0-123	
Toluene	0.125	0.123	98.4	75.0-121	
Ethylbenzene	0.125	0.127	102	74.0-126	
Xylenes, Total	0.375	0.374	99.7	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.108	86.4	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.111	88.8	73.0-127	
(S) Toluene-d8			99.1	75.0-131	
(S) 4-Bromofluorobenzene			102	67.0-138	
(S) 1,2-Dichloroethane-d4			91.6	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4126089-1 09/29/24 19:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	70.4			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4126089-2 09/29/24 20:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.6	75.2	50.0-150	
(S) o-Terphenyl			62.2	18.0-148	

L1781861-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1781861-01 09/29/24 23:55 • (MS) R4126089-3 09/30/24 00:08 • (MSD) R4126089-4 09/30/24 00:21

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 %
C10-C28 Diesel Range	45.7	150	74.6	123	0.000	0.000	40	50.0-150	J6	J3 J6	49.0	20
(S) o-Terphenyl					0.000	0.000		18.0-148	J7	J7		

Sample Narrative:

OS: Cannot run at lower dilution due to viscosity of extract

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4126953-2 09/30/24 19:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	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
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	91.0			23.0-120
(S) Nitrobenzene-d5	75.4			14.0-149
(S) 2-Fluorobiphenyl	84.7			34.0-125

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R4126953-1 09/30/24 19:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0639	79.9	50.0-120	
Anthracene	0.0800	0.0670	83.8	50.0-126	
Benzo(a)anthracene	0.0800	0.0648	81.0	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0632	79.0	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0633	79.1	49.0-125	
Benzo(a)pyrene	0.0800	0.0580	72.5	42.0-120	
Chrysene	0.0800	0.0695	86.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0695	86.9	47.0-125	
Fluoranthene	0.0800	0.0666	83.3	49.0-129	
Fluorene	0.0800	0.0707	88.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0660	82.5	46.0-125	
1-Methylnaphthalene	0.0800	0.0707	88.4	51.0-121	
2-Methylnaphthalene	0.0800	0.0681	85.1	50.0-120	
Naphthalene	0.0800	0.0679	84.9	50.0-120	
Pyrene	0.0800	0.0646	80.7	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4126953-1 09/30/24 19:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
(S) p-Terphenyl-d14			99.2	23.0-120	
(S) Nitrobenzene-d5			94.0	14.0-149	
(S) 2-Fluorobiphenyl			95.9	34.0-125	

L1782045-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1782045-03 09/30/24 20:33 • (MS) R4126953-3 09/30/24 20:53 • (MSD) R4126953-4 09/30/24 21:13

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 %
Acenaphthene	0.0764	0.0828	0.108	0.115	33.0	42.1	1	14.0-127			6.28	27
Anthracene	0.0764	0.0121	0.0564	0.0643	58.0	68.3	1	10.0-145			13.1	30
Benzo(a)anthracene	0.0764	0.00763	0.0544	0.0633	61.2	72.9	1	10.0-139			15.1	30
Benzo(b)fluoranthene	0.0764	0.00420	0.0514	0.0586	61.8	71.2	1	10.0-140			13.1	36
Benzo(k)fluoranthene	0.0764	U	0.0460	0.0557	60.2	72.9	1	10.0-137			19.1	31
Benzo(a)pyrene	0.0764	0.00439	0.0493	0.0573	58.8	69.3	1	10.0-141			15.0	31
Chrysene	0.0764	0.00682	0.0565	0.0652	65.0	76.4	1	10.0-145			14.3	30
Dibenz(a,h)anthracene	0.0764	U	0.0516	0.0603	67.5	78.9	1	10.0-132			15.5	31
Fluoranthene	0.0764	0.0172	0.0597	0.0685	55.6	67.1	1	10.0-153			13.7	33
Fluorene	0.0764	0.0800	0.109	0.118	38.0	49.7	1	11.0-130			7.93	29
Indeno(1,2,3-cd)pyrene	0.0764	0.00208	0.0507	0.0573	63.6	72.3	1	10.0-137			12.2	32
1-Methylnaphthalene	0.0764	10.5	7.96	7.75	0.000	0.000	1	10.0-142	<u>E V</u>	<u>E V</u>	2.67	28
2-Methylnaphthalene	0.0764	19.7	15.5	15.0	0.000	0.000	1	10.0-137	<u>E V</u>	<u>E V</u>	3.28	28
Naphthalene	0.0764	17.5	14.6	13.5	0.000	0.000	1	10.0-135	<u>E V</u>	<u>E V</u>	7.83	27
Pyrene	0.0764	0.0296	0.0720	0.0812	55.5	67.5	1	10.0-148			12.0	35
(S) p-Terphenyl-d14					65.1	92.7		23.0-120				
(S) Nitrobenzene-d5					0.000	0.000		14.0-149	<u>J2</u>	<u>J2</u>		
(S) 2-Fluorobiphenyl					69.6	93.2		34.0-125				

Sample Narrative:
OS: Surrogate failure due to matrix interference.

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

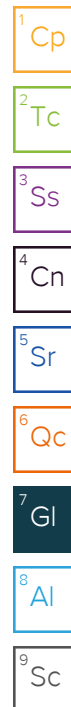
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
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.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
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}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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

* 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 Analytical.

