

Terra Energy Partners

Sample Delivery Group: L1885814
Samples Received: 08/07/2025
Project Number:
Description: RU 32-12 (May/Jun Workover)
Site: RU 32-12
Report To: Mike G. / Kris R. / Bruce S.
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Grand Junction, CO 81506

Entire Report Reviewed By:



Chris Ward
Project Manager

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Pace Analytical National

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SAMPLE SUMMARY

BC 10 L1885814-01

Collected by: Thomas Prichard
 Collected date/time: 08/06/25 12:05
 Received date/time: 08/07/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2577537	1	08/11/25 17:41	08/13/25 13:54	AMG	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2575017	1	08/08/25 19:09	08/08/25 19:09	RJP	Mt. Juliet, TN
Wet Chemistry by Method 3500Cr C-2011	WG2572779	1	08/09/25 09:36	08/09/25 09:36	EKB	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2578265	1	08/14/25 20:22	08/14/25 20:22	RTW	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG2577612	1	08/11/25 10:31	08/12/25 11:23	KMB	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2584509	1	08/21/25 20:25	08/21/25 20:25	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2578090	1	08/20/25 14:42	08/20/25 14:42	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2574800	1	08/07/25 20:16	08/07/25 20:16	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2577120	1	08/13/25 01:41	08/13/25 13:29	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2577125	1	08/13/25 03:37	08/15/25 16:21	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D	WG2576383	1	08/09/25 14:59	08/09/25 14:59	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2575359	1	08/08/25 04:27	08/08/25 04:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015D	WG2576671	1	08/11/25 17:35	08/16/25 00:41	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2576289	1	08/09/25 15:04	08/11/25 11:21	DMG	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Ds

6
Sr

7
Qc

8
Gl

9
Al

10
Sc

TRIP BLANK L1885814-02

Collected by: Thomas Prichard
 Collected date/time: 08/06/25 00:00
 Received date/time: 08/07/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2575272	1	08/07/25 20:51	08/07/25 20:51	CDD	Mt. Juliet, TN

CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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



Sample Delivery Group (SDG) Narrative

The laboratory analysis was performed from an unpreserved, insufficiently or inadequately preserved sample.

Batch	Method	Lab Sample ID
WG2572779	3500Cr C-2011	L1885814-01

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

Batch	Method	Lab Sample ID
WG2584509	9040C	L1885814-01

Gravimetric Analysis by Method 2540 C-2011

RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Batch	Lab Sample ID	Analytes
WG2577537	(DUP) R4259722-4	Dissolved Solids

Wet Chemistry by Method 9056A

The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

Batch	Lab Sample ID	Analytes
WG2574800	(MS) R4258600-6	Chloride and Sulfate
WG2574800	(MSD) R4258600-7	Chloride and Sulfate

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2574800	(MS) R4258600-6, (MSD) R4258600-7	Bromide

The sample concentration is too high to evaluate accurate spike recoveries.

Batch	Lab Sample ID	Analytes
WG2574800	(MS) R4258600-6, (MSD) R4258600-7	Chloride and Sulfate

Metals (ICP) by Method 6010D

Analysis was filtered in the laboratory.

Batch	Method	Lab Sample ID
WG2577120	6010D	L1885814-01

CASE NARRATIVE

Metals (ICP) by Method 6010D

The sample concentration is too high to evaluate accurate spike recoveries.

Batch	Lab Sample ID	Analytes
WG2577120	(MS) R4258149-9, (MSD) R4258149-10	Calcium,Dissolved, Magnesium,Dissolved and Sodium,Dissolved

Metals (ICPMS) by Method 6020B

Analysis was filtered in the laboratory.

Batch	Method	Lab Sample ID
WG2577125	6020B	L1885814-01

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

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2576671	o-Terphenyl	(LCS) R4259015-2

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

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2576289	(LCSD) R4257377-3, L1885814-01	Benzo(k)fluoranthene and Dibenz(a,h)anthracene

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

DETECTION SUMMARY

Gravimetric Analysis by Method 2540 C-2011

Client ID	Lab Sample ID	Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
BC 10	L1885814-01	Dissolved Solids	187		10.0	1	08/13/2025 13:54	WG2577537

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

Wet Chemistry by Method 2320 B-2011

Client ID	Lab Sample ID	Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
BC 10	L1885814-01	Alkalinity	153		4.75	20.0	1	08/08/2025 19:09	WG2575017
BC 10	L1885814-01	Alkalinity,Bicarbonate	147		4.75	20.0	1	08/08/2025 19:09	WG2575017
BC 10	L1885814-01	Alkalinity,Carbonate	6.04	J	4.75	20.0	1	08/08/2025 19:09	WG2575017

Wet Chemistry by Method 353.2

Client ID	Lab Sample ID	Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
BC 10	L1885814-01	Nitrate-Nitrite	0.0815	J	0.0435	0.200	1	08/14/2025 20:22	WG2578265

Wet Chemistry by Method 9050A

Client ID	Lab Sample ID	Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
BC 10	L1885814-01	Specific Conductance	0.316	mmhos/cm		0.0100	1	08/20/2025 14:42	WG2578090

Wet Chemistry by Method 9056A

Client ID	Lab Sample ID	Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
BC 10	L1885814-01	Chloride	0.770	J	0.547	1.00	1	08/07/2025 20:16	WG2574800
BC 10	L1885814-01	Fluoride	0.103	J	0.0761	0.150	1	08/07/2025 20:16	WG2574800
BC 10	L1885814-01	Sulfate	18.4		0.637	5.00	1	08/07/2025 20:16	WG2574800

Metals (ICP) by Method 6010D

Client ID	Lab Sample ID	Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
BC 10	L1885814-01	Barium,Dissolved	0.0491		0.000773	0.00500	1	08/13/2025 13:29	WG2577120
BC 10	L1885814-01	Boron,Dissolved	0.0269	J	0.0232	0.200	1	08/13/2025 13:29	WG2577120
BC 10	L1885814-01	Calcium,Dissolved	39.3		0.153	1.00	1	08/13/2025 13:29	WG2577120
BC 10	L1885814-01	Magnesium,Dissolved	8.34		0.101	1.00	1	08/13/2025 13:29	WG2577120
BC 10	L1885814-01	Potassium,Dissolved	1.13	J	0.624	2.00	1	08/13/2025 13:29	WG2577120
BC 10	L1885814-01	Selenium,Dissolved	0.00650	J	0.00616	0.0100	1	08/13/2025 13:29	WG2577120
BC 10	L1885814-01	Sodium,Dissolved	14.7		0.444	3.00	1	08/13/2025 13:29	WG2577120
BC 10	L1885814-01	Strontium,Dissolved	0.292		0.00187	0.0100	1	08/13/2025 13:29	WG2577120

Metals (ICPMS) by Method 6020B

Client ID	Lab Sample ID	Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
BC 10	L1885814-01	Arsenic,Dissolved	0.00283		0.000120	0.00200	1	08/15/2025 16:21	WG2577125

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	187		10.0	1	08/13/2025 13:54	WG2577537

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

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Alkalinity	153		4.75	20.0	1	08/08/2025 19:09	WG2575017
Alkalinity,Bicarbonate	147		4.75	20.0	1	08/08/2025 19:09	WG2575017
Alkalinity,Carbonate	6.04	J	4.75	20.0	1	08/08/2025 19:09	WG2575017
Alkalinity,Hydroxide	U		4.75	20.0	1	08/08/2025 19:09	WG2575017

Sample Narrative:

L1885814-01 WG2575017: Endpoint pH 4.5 HEADSPACE

Wet Chemistry by Method 3500Cr C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.000100	0.000500	1	08/09/2025 09:36	WG2572779

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0815	J	0.0435	0.200	1	08/14/2025 20:22	WG2578265

Wet Chemistry by Method 365.4

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Phosphorus>Total	U		0.0642	0.100	1	08/12/2025 11:23	WG2577612

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.42	T8	1	08/21/2025 20:25	WG2584509

Sample Narrative:

L1885814-01 WG2584509: 8.42 at 19C

Wet Chemistry by Method 9050A

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	0.316	mmhos/cm		0.0100	1	08/20/2025 14:42	WG2578090

Sample Narrative:

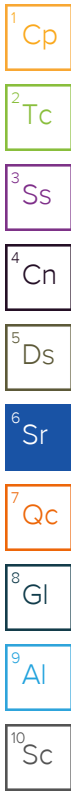
L1885814-01 WG2578090: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Bromide	U		0.680	1.00	1	08/07/2025 20:16	WG2574800
Chloride	0.770	J	0.547	1.00	1	08/07/2025 20:16	WG2574800
Fluoride	0.103	J	0.0761	0.150	1	08/07/2025 20:16	WG2574800
Nitrate as (N)	U		0.0884	0.100	1	08/07/2025 20:16	WG2574800
Nitrite as (N)	U		0.0794	0.100	1	08/07/2025 20:16	WG2574800

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sulfate	18.4		0.637	5.00	1	08/07/2025 20:16	WG2574800



Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Barium,Dissolved	0.0491		0.000773	0.00500	1	08/13/2025 13:29	WG2577120
Boron,Dissolved	0.0269	U	0.0232	0.200	1	08/13/2025 13:29	WG2577120
Cadmium,Dissolved	U		0.000538	0.00200	1	08/13/2025 13:29	WG2577120
Calcium,Dissolved	39.3		0.153	1.00	1	08/13/2025 13:29	WG2577120
Copper,Dissolved	U		0.00226	0.0100	1	08/13/2025 13:29	WG2577120
Iron,Dissolved	U		0.0205	0.100	1	08/13/2025 13:29	WG2577120
Lead,Dissolved	U		0.00243	0.00600	1	08/13/2025 13:29	WG2577120
Magnesium,Dissolved	8.34		0.101	1.00	1	08/13/2025 13:29	WG2577120
Manganese,Dissolved	U		0.00101	0.0100	1	08/13/2025 13:29	WG2577120
Nickel,Dissolved	U		0.00196	0.0100	1	08/13/2025 13:29	WG2577120
Potassium,Dissolved	1.13	U	0.624	2.00	1	08/13/2025 13:29	WG2577120
Selenium,Dissolved	0.00650	U	0.00616	0.0100	1	08/13/2025 13:29	WG2577120
Silver,Dissolved	U		0.00289	0.00500	1	08/13/2025 13:29	WG2577120
Sodium,Dissolved	14.7		0.444	3.00	1	08/13/2025 13:29	WG2577120
Strontium,Dissolved	0.292		0.00187	0.0100	1	08/13/2025 13:29	WG2577120
Zinc,Dissolved	U		0.00467	0.0500	1	08/13/2025 13:29	WG2577120

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic,Dissolved	0.00283		0.000120	0.00200	1	08/15/2025 16:21	WG2577125

Volatile Organic Compounds (GC) by Method 8015D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPH (GC/FID) Low Fraction	U		59.4	100	1	08/09/2025 14:59	WG2576383
^(S) a,a,a-Trifluorotoluene(FID)	109			78.0-120		08/09/2025 14:59	WG2576383

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.320	1.00	1	08/08/2025 04:27	WG2575359
Toluene	U		0.274	1.00	1	08/08/2025 04:27	WG2575359
Ethylbenzene	U		0.234	1.00	1	08/08/2025 04:27	WG2575359
Xylenes, Total	U		0.319	3.00	1	08/08/2025 04:27	WG2575359
Naphthalene	U		2.64	5.00	1	08/08/2025 04:27	WG2575359
1,2,4-Trimethylbenzene	U		0.274	2.00	1	08/08/2025 04:27	WG2575359
1,3,5-Trimethylbenzene	U		0.266	1.00	1	08/08/2025 04:27	WG2575359
^(S) Toluene-d8	100			80.0-120		08/08/2025 04:27	WG2575359
^(S) 4-Bromofluorobenzene	101			77.0-126		08/08/2025 04:27	WG2575359
^(S) 1,2-Dichloroethane-d4	113			70.0-130		08/08/2025 04:27	WG2575359

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		60.5	100	1	08/16/2025 00:41	WG2576671
C28-C36 Motor Oil Range	U		77.2	100	1	08/16/2025 00:41	WG2576671
(S) o-Terphenyl	96.8			52.0-156		08/16/2025 00:41	WG2576671

Sample Narrative:

L1885814-01 WG2576671: Sample not processed with silica gel due to non-detect in normal run

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0210	0.0500	1	08/11/2025 11:21	WG2576289
Acenaphthene	U		0.0202	0.0500	1	08/11/2025 11:21	WG2576289
Acenaphthylene	U		0.0221	0.0500	1	08/11/2025 11:21	WG2576289
Benzo(a)anthracene	U		0.0242	0.0500	1	08/11/2025 11:21	WG2576289
Benzo(a)pyrene	U		0.0272	0.0500	1	08/11/2025 11:21	WG2576289
Benzo(b)fluoranthene	U		0.0253	0.0500	1	08/11/2025 11:21	WG2576289
Benzo(g,h,i)perylene	U		0.0335	0.0500	1	08/11/2025 11:21	WG2576289
Benzo(k)fluoranthene	U	<u>J3</u>	0.0254	0.0500	1	08/11/2025 11:21	WG2576289
Chrysene	U		0.0257	0.0500	1	08/11/2025 11:21	WG2576289
Dibenz(a,h)anthracene	U	<u>J3</u>	0.0251	0.0500	1	08/11/2025 11:21	WG2576289
Fluoranthene	U		0.0375	0.0500	1	08/11/2025 11:21	WG2576289
Fluorene	U		0.0212	0.0500	1	08/11/2025 11:21	WG2576289
Indeno(1,2,3-cd)pyrene	U		0.0270	0.0500	1	08/11/2025 11:21	WG2576289
Naphthalene	U		0.118	0.250	1	08/11/2025 11:21	WG2576289
Phenanthrene	U		0.0279	0.0500	1	08/11/2025 11:21	WG2576289
Pyrene	U		0.0416	0.0500	1	08/11/2025 11:21	WG2576289
1-Methylnaphthalene	U		0.112	0.250	1	08/11/2025 11:21	WG2576289
2-Methylnaphthalene	U		0.117	0.250	1	08/11/2025 11:21	WG2576289
2-Chloronaphthalene	U		0.111	0.250	1	08/11/2025 11:21	WG2576289
(S) Nitrobenzene-d5	98.9			31.0-160		08/11/2025 11:21	WG2576289
(S) 2-Fluorobiphenyl	98.9			48.0-148		08/11/2025 11:21	WG2576289
(S) p-Terphenyl-d14	99.5			37.0-146		08/11/2025 11:21	WG2576289

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.320	1.00	1	08/07/2025 20:51	WG2575272
Toluene	U		0.274	1.00	1	08/07/2025 20:51	WG2575272
Ethylbenzene	U		0.234	1.00	1	08/07/2025 20:51	WG2575272
Xylenes, Total	U		0.319	3.00	1	08/07/2025 20:51	WG2575272
<i>(S) Toluene-d8</i>	97.2			80.0-120		08/07/2025 20:51	WG2575272
<i>(S) 4-Bromofluorobenzene</i>	103			77.0-126		08/07/2025 20:51	WG2575272
<i>(S) 1,2-Dichloroethane-d4</i>	80.3			70.0-130		08/07/2025 20:51	WG2575272

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

Method Blank (MB)

(MB) R4259722-1 08/13/25 13:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10.0	10.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

L1886119-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1886119-03 08/13/25 13:54 • (DUP) R4259722-3 08/13/25 13:54

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	2130	2130	1	0.235		10

L1886121-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1886121-08 08/13/25 13:54 • (DUP) R4259722-4 08/13/25 13:54

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	31.0	28.0	1	10.2	P1	10

Laboratory Control Sample (LCS)

(LCS) R4259722-2 08/13/25 13:54

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800	8810	100	90.0-110	

Method Blank (MB)

(MB) R4256175-2 08/08/25 13:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Alkalinity	U		4.75	20.0
Alkalinity,Bicarbonate	U		4.75	20.0
Alkalinity,Carbonate	U		4.75	20.0
Alkalinity,Hydroxide	U		4.75	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1885799-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1885799-01 08/08/25 17:43 • (DUP) R4256175-3 08/08/25 17:49

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Alkalinity	310	316	1	1.70		20
Alkalinity,Bicarbonate	310	316	1	1.70		20
Alkalinity,Carbonate	U	U	1	0.000		20
Alkalinity,Hydroxide	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 HEADSPACE

DUP: Endpoint pH 4.5

L1885799-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1885799-02 08/08/25 19:57 • (DUP) R4256175-4 08/08/25 20:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Alkalinity	308	314	1	1.90		20
Alkalinity,Bicarbonate	308	314	1	1.90		20
Alkalinity,Carbonate	U	U	1	0.000		20
Alkalinity,Hydroxide	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 HEADSPACE

DUP: Endpoint pH 4.5



Laboratory Control Sample (LCS)

(LCS) R4256175-1 08/08/25 13:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100	104	104	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R4256389-1 08/08/25 21:58

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium	U		0.000100	0.000500

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

L1878632-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1878632-05 08/08/25 23:34 • (DUP) R4256389-5 08/08/25 23:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	U	U	1	0.000		20

L1878632-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1878632-13 08/09/25 09:13 • (DUP) R4256389-6 08/09/25 09:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4256389-2 08/08/25 22:10

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Hexavalent Chromium	0.00200	0.00217	108	90.0-110	

L1878632-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1878632-02 08/08/25 22:34 • (MS) R4256389-3 08/08/25 22:46 • (MSD) R4256389-4 08/08/25 22:58

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Hexavalent Chromium	0.0500	U	0.0483	0.0483	96.5	96.5	1	90.0-110			0.0238	20

L1885819-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1885819-01 08/09/25 10:12 • (MS) R4256389-7 08/09/25 10:24

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Hexavalent Chromium	0.0500	U	0.0487	97.4	1	90.0-110	

Method Blank (MB)

(MB) R4258831-1 08/14/25 20:02

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Nitrate-Nitrite	U		0.0435	0.200

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R4258831-2 08/14/25 20:03

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Nitrate-Nitrite	2.50	2.54	102	90.0-110	

⁴Cn

⁵Ds

L1885287-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1885287-01 08/14/25 20:08 • (MS) R4258831-3 08/14/25 20:09 • (MSD) R4258831-4 08/14/25 20:11

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrate-Nitrite	2.50	0.171	2.67	2.72	100	102	1	90.0-110			1.86	20

⁶Sr

⁷Qc

⁸Gl

L1885633-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1885633-01 08/14/25 20:12 • (MS) R4258831-5 08/14/25 20:17 • (MSD) R4258831-6 08/14/25 20:18

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrate-Nitrite	2.50	U	2.52	2.50	101	100	1	90.0-110			0.797	20

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R4257426-1 08/12/25 11:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Phosphorus,Total	U		0.0642	0.100

L1885633-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1885633-02 08/12/25 11:12 • (DUP) R4257426-3 08/12/25 11:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Phosphorus,Total	0.251	0.259	1	3.14		20

Laboratory Control Sample (LCS)

(LCS) R4257426-2 08/12/25 11:07

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Phosphorus,Total	1.70	1.69	99.7	86.0-112	

L1886440-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1886440-01 08/12/25 11:27 • (MS) R4257426-4 08/12/25 11:28 • (MSD) R4257426-5 08/12/25 11:30

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Phosphorus,Total	2.50	0.165	2.58	2.62	96.6	98.2	1	86.0-112			1.54	20

L1886440-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1886440-11 08/12/25 11:39 • (MS) R4257426-6 08/12/25 11:40 • (MSD) R4257426-7 08/12/25 11:41

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Phosphorus,Total	2.50	0.184	2.72	2.73	101	102	1	86.0-112			0.367	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

L1885347-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1885347-04 08/21/25 20:25 • (DUP) R4262220-2 08/21/25 20:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.64	7.61	1	0.393		1

Sample Narrative:

OS: 7.64 at 19.6C
 DUP: 7.61 at 19.5C

L1888050-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1888050-05 08/21/25 20:25 • (DUP) R4262220-3 08/21/25 20:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.57	7.60	1	0.396		1

Sample Narrative:

OS: 7.57 at 19.7C
 DUP: 7.6 at 19.9C

Laboratory Control Sample (LCS)

(LCS) R4262220-1 08/21/25 20:25

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

Sample Narrative:

LCS: 10 at 20.5C



Method Blank (MB)

(MB) R4261381-1 08/20/25 14:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Specific Conductance	U		0.0100	0.0100

Sample Narrative:

BLANK: at 25C

L1885024-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1885024-01 08/20/25 14:42 • (DUP) R4261381-3 08/20/25 14:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	0.468	0.472	1	0.851		10

Sample Narrative:

OS: at 25C
DUP: at 25C

L1886473-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1886473-11 08/20/25 14:42 • (DUP) R4261381-4 08/20/25 14:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	ND	ND	1	0.000		10

Sample Narrative:

OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4261381-2 08/20/25 14:42

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Specific Conductance	0.581	0.591	102	90.0-110	

Sample Narrative:

LCS: at 25C

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R4258600-1 08/07/25 18:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Bromide	U		0.680	1.00
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Nitrate as (N)	U		0.0884	0.100
Nitrite as (N)	U		0.0794	0.100
Sulfate	U		0.637	5.00

L1885796-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1885796-01 08/07/25 19:37 • (DUP) R4258600-3 08/07/25 19:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Bromide	U	U	1	0.000		15
Chloride	25.8	26.3	1	1.84		15
Fluoride	0.104	0.0969	1	6.78	U	15
Nitrate as (N)	0.840	0.879	1	4.63		15
Nitrite as (N)	U	U	1	0.000		15
Sulfate	29.0	29.6	1	2.25		15

L1885877-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1885877-03 08/07/25 23:02 • (DUP) R4258600-5 08/07/25 23:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Bromide	U	U	1	0.000		15
Fluoride	0.0835	0.0856	1	2.48	U	15
Nitrate as (N)	U	U	1	0.000		15
Nitrite as (N)	U	U	1	0.000		15

L1885877-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1885877-03 08/08/25 02:15 • (DUP) R4258600-8 08/08/25 02:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Chloride	478	464	5	2.98		15
Sulfate	481	467	5	2.95		15

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Laboratory Control Sample (LCS)

(LCS) R4258600-2 08/07/25 19:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromide	40.0	42.6	107	80.0-120	
Chloride	40.0	42.2	106	80.0-120	
Fluoride	8.00	8.67	108	80.0-120	
Nitrate as (N)	8.00	8.48	106	80.0-120	
Nitrite as (N)	8.00	8.92	112	80.0-120	
Sulfate	40.0	43.4	109	80.0-120	

L1885796-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1885796-01 08/07/25 19:37 • (MS) R4258600-4 08/07/25 20:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Bromide	40.0	U	41.2	103	1	80.0-120	
Chloride	40.0	25.8	64.1	95.7	1	80.0-120	
Fluoride	8.00	0.104	8.79	109	1	80.0-120	
Nitrate as (N)	8.00	0.840	9.17	104	1	80.0-120	
Nitrite as (N)	8.00	U	8.73	109	1	80.0-120	
Sulfate	40.0	29.0	67.9	97.4	1	80.0-120	

L1885877-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1885877-03 08/07/25 23:02 • (MS) R4258600-6 08/07/25 23:28 • (MSD) R4258600-7 08/07/25 23:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Bromide	40.0	U	23.0	22.3	57.5	55.7	1	80.0-120	<u>J6</u>	<u>J6</u>	3.26	15
Chloride	40.0	451	396	396	0.000	0.000	1	80.0-120	<u>E V</u>	<u>E V</u>	0.0973	15
Fluoride	8.00	0.0835	7.77	7.82	96.1	96.8	1	80.0-120			0.693	15
Nitrate as (N)	8.00	U	7.60	7.61	95.0	95.1	1	80.0-120			0.178	15
Nitrite as (N)	8.00	U	8.26	8.28	103	104	1	80.0-120			0.228	15
Sulfate	40.0	450	370	373	0.000	0.000	1	80.0-120	<u>E V</u>	<u>E V</u>	0.722	15

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

Method Blank (MB)

(MB) R4258149-6 08/13/25 13:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Barium,Dissolved	U		0.000773	0.00500
Boron,Dissolved	U		0.0233	0.200
Cadmium,Dissolved	U		0.000538	0.00200
Calcium,Dissolved	U		0.153	1.00
Copper,Dissolved	U		0.00226	0.0100
Iron,Dissolved	U		0.0205	0.100
Lead,Dissolved	U		0.00243	0.00600
Magnesium,Dissolved	U		0.101	1.00
Manganese,Dissolved	U		0.00101	0.0100
Nickel,Dissolved	U		0.00196	0.0100
Potassium,Dissolved	U		0.624	2.00
Selenium,Dissolved	U		0.00616	0.0100
Silver,Dissolved	U		0.00289	0.00500
Sodium,Dissolved	U		0.444	3.00
Strontium,Dissolved	U		0.00187	0.0100
Zinc,Dissolved	U		0.00467	0.0500

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

Laboratory Control Sample (LCS)

(LCS) R4258149-7 08/13/25 13:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium,Dissolved	1.00	0.989	98.9	80.0-120	
Boron,Dissolved	1.00	0.987	98.7	80.0-120	
Cadmium,Dissolved	1.00	0.919	91.9	80.0-120	
Calcium,Dissolved	10.0	9.81	98.1	80.0-120	
Copper,Dissolved	1.00	1.03	103	80.0-120	
Iron,Dissolved	10.0	10.1	101	80.0-120	
Lead,Dissolved	1.00	0.899	89.9	80.0-120	
Magnesium,Dissolved	10.0	10.2	102	80.0-120	
Manganese,Dissolved	1.00	1.03	103	80.0-120	
Nickel,Dissolved	1.00	0.865	86.5	80.0-120	
Potassium,Dissolved	10.0	9.95	99.5	80.0-120	
Selenium,Dissolved	1.00	0.930	93.0	80.0-120	
Silver,Dissolved	0.200	0.196	97.8	80.0-120	
Sodium,Dissolved	10.0	10.0	100	80.0-120	
Strontium,Dissolved	1.00	1.06	106	80.0-120	
Zinc,Dissolved	1.00	0.974	97.4	80.0-120	

L1886119-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1886119-02 08/13/25 13:22 • (MS) R4258149-9 08/13/25 13:26 • (MSD) R4258149-10 08/13/25 13:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium,Dissolved	1.00	0.0189	0.989	0.997	97.0	97.8	1	75.0-125			0.858	20
Boron,Dissolved	1.00	8.57	9.42	9.42	84.7	84.7	1	75.0-125			0.0000425	20
Cadmium,Dissolved	1.00	U	0.947	0.954	94.7	95.4	1	75.0-125			0.681	20
Calcium,Dissolved	10.0	275	281	283	55.4	81.2	1	75.0-125	∇		0.914	20
Copper,Dissolved	1.00	U	0.988	0.999	98.8	99.9	1	75.0-125			1.17	20
Iron,Dissolved	10.0	U	10.1	10.1	101	101	1	75.0-125			0.243	20
Lead,Dissolved	1.00	U	0.951	0.949	95.1	94.9	1	75.0-125			0.253	20
Magnesium,Dissolved	10.0	112	119	120	73.2	84.3	1	75.0-125	∇		0.923	20
Manganese,Dissolved	1.00	0.0140	1.03	1.03	101	102	1	75.0-125			0.680	20
Nickel,Dissolved	1.00	U	0.938	0.933	93.8	93.3	1	75.0-125			0.548	20
Potassium,Dissolved	10.0	2.62	12.7	12.6	100	99.7	1	75.0-125			0.469	20
Silver,Dissolved	0.200	U	0.199	0.201	99.5	101	1	75.0-125			1.09	20
Sodium,Dissolved	10.0	373	377	377	39.1	37.9	1	75.0-125	∇	∇	0.0314	20
Strontium,Dissolved	1.00	5.85	6.81	6.88	96.5	103	1	75.0-125			0.898	20
Zinc,Dissolved	1.00	U	0.966	0.979	96.6	97.9	1	75.0-125			1.33	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R4259412-1 08/15/25 15:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000120	0.00200

Laboratory Control Sample (LCS)

(LCS) R4259412-2 08/15/25 15:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0518	104	80.0-120	

L1885993-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1885993-01 08/15/25 15:49 • (MS) R4259412-4 08/15/25 15:55 • (MSD) R4259412-5 08/15/25 15:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.00115	0.0519	0.0524	102	102	1	75.0-125			0.874	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R4258138-2 08/09/25 11:00

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		59.4	100
^(S) a,a,a-Trifluorotoluene(FID)	108			78.0-120

Laboratory Control Sample (LCS)

(LCS) R4258138-1 08/09/25 10:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5000	5520	110	72.0-127	
^(S) a,a,a-Trifluorotoluene(FID)			118	78.0-120	

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

Method Blank (MB)

(MB) R4257415-3 08/07/25 18:40

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.320	1.00
Toluene	U		0.274	1.00
Ethylbenzene	U		0.234	1.00
Xylenes, Total	U		0.319	3.00
(S) Toluene-d8	98.7			80.0-120
(S) 4-Bromofluorobenzene	108			77.0-126
(S) 1,2-Dichloroethane-d4	81.6			70.0-130

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

(LCS) R4257415-1 08/07/25 17:33 • (LCSD) R4257415-2 08/07/25 17:57

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	22.3	22.6	89.2	90.4	70.0-123			1.34	20
Toluene	25.0	21.2	20.4	84.8	81.6	79.0-120			3.85	20
Ethylbenzene	25.0	21.8	21.4	87.2	85.6	79.0-123			1.85	20
Xylenes, Total	75.0	67.1	67.8	89.5	90.4	79.0-123			1.04	20
(S) Toluene-d8				95.1	93.3	80.0-120				
(S) 4-Bromofluorobenzene				103	102	77.0-126				
(S) 1,2-Dichloroethane-d4				87.5	88.6	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R4256067-4 08/07/25 21:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.320	1.00
Toluene	U		0.274	1.00
Ethylbenzene	U		0.234	1.00
Xylenes, Total	U		0.319	3.00
Naphthalene	U		2.64	5.00
1,2,4-Trimethylbenzene	U		0.274	2.00
1,3,5-Trimethylbenzene	U		0.266	1.00
(S) Toluene-d8	98.5			80.0-120
(S) 4-Bromofluorobenzene	100			77.0-126
(S) 1,2-Dichloroethane-d4	111			70.0-130

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

(LCS) R4256067-1 08/07/25 19:35 • (LCSD) R4256067-2 08/07/25 19:56

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	25.0	24.9	100	99.6	70.0-123			0.401	20
Toluene	25.0	24.1	24.8	96.4	99.2	79.0-120			2.86	20
Ethylbenzene	25.0	24.4	25.0	97.6	100	79.0-123			2.43	20
Xylenes, Total	75.0	75.6	77.2	101	103	79.0-123			2.09	20
Naphthalene	25.0	26.1	28.8	104	115	54.0-135			9.84	20
1,2,4-Trimethylbenzene	25.0	24.0	25.8	96.0	103	76.0-121			7.23	20
1,3,5-Trimethylbenzene	25.0	25.0	26.8	100	107	76.0-122			6.95	20
(S) Toluene-d8				96.9	98.3	80.0-120				
(S) 4-Bromofluorobenzene				101	101	77.0-126				
(S) 1,2-Dichloroethane-d4				126	123	70.0-130				

L1886023-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1886023-01 08/08/25 05:07 • (MS) R4256067-5 08/08/25 06:48 • (MSD) R4256067-6 08/08/25 07:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Benzene	25.0	U	23.8	21.0	95.2	84.0	1	17.0-158			12.5	27
Toluene	25.0	U	21.2	18.8	84.8	75.2	1	26.0-154			12.0	28
Ethylbenzene	25.0	U	20.8	17.8	83.2	71.2	1	30.0-155			15.5	27
Xylenes, Total	75.0	U	64.1	55.8	85.5	74.4	1	29.0-154			13.8	28
Naphthalene	25.0	U	22.1	20.7	88.4	82.8	1	12.0-156			6.54	35
1,2,4-Trimethylbenzene	25.0	U	22.8	19.6	91.2	78.4	1	26.0-154			15.1	27
1,3,5-Trimethylbenzene	25.0	U	23.9	20.6	95.6	82.4	1	28.0-153			14.8	27



L1886023-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1886023-01 08/08/25 05:07 • (MS) R4256067-5 08/08/25 06:48 • (MSD) R4256067-6 08/08/25 07:08

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) Toluene-d8					92.7	93.8		80.0-120				
(S) 4-Bromofluorobenzene					92.9	94.6		77.0-126				
(S) 1,2-Dichloroethane-d4					125	123		70.0-130				

¹Cp

²Tc

³Ss

⁴Cn

⁵Ds

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R4259015-1 08/14/25 11:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
C10-C28 Diesel Range	U		60.5	100
C28-C36 Motor Oil Range	U		77.2	100
(S) o-Terphenyl	112			52.0-156

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

(LCS) R4259015-2 08/14/25 11:34 • (LCSD) R4259015-3 08/14/25 12:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
C10-C28 Diesel Range	1500	1780	1810	119	121	50.0-150			1.67	20
(S) o-Terphenyl				0.000	112	52.0-156	J2			

1 Cp

2 Tc

3 Ss

4 Cn

5 Ds

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R4257377-2 08/11/25 09:36

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0210	0.0500
Acenaphthene	U		0.0202	0.0500
Acenaphthylene	U		0.0221	0.0500
Benzo(a)anthracene	U		0.0242	0.0500
Benzo(a)pyrene	U		0.0272	0.0500
Benzo(b)fluoranthene	U		0.0253	0.0500
Benzo(g,h,i)perylene	U		0.0335	0.0500
Benzo(k)fluoranthene	U		0.0254	0.0500
Chrysene	U		0.0257	0.0500
Dibenz(a,h)anthracene	U		0.0251	0.0500
Fluoranthene	U		0.0375	0.0500
Fluorene	U		0.0212	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0270	0.0500
Naphthalene	U		0.118	0.250
Phenanthrene	U		0.0279	0.0500
Pyrene	U		0.0416	0.0500
1-Methylnaphthalene	U		0.112	0.250
2-Methylnaphthalene	U		0.117	0.250
2-Chloronaphthalene	U		0.111	0.250
(S) Nitrobenzene-d5	98.0			31.0-160
(S) 2-Fluorobiphenyl	96.0			48.0-148
(S) p-Terphenyl-d14	92.5			37.0-146

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

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

(LCS) R4257377-1 08/11/25 09:18 • (LCSD) R4257377-3 08/11/25 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	2.15	2.21	107	111	67.0-150			2.75	20
Acenaphthene	2.00	1.90	2.00	95.0	100	65.0-138			5.13	20
Acenaphthylene	2.00	2.04	2.17	102	108	66.0-140			6.18	20
Benzo(a)anthracene	2.00	1.87	2.08	93.5	104	61.0-140			10.6	20
Benzo(a)pyrene	2.00	1.71	2.04	85.5	102	60.0-143			17.6	20
Benzo(b)fluoranthene	2.00	1.67	1.94	83.5	97.0	58.0-141			15.0	20
Benzo(g,h,i)perylene	2.00	1.59	1.92	79.5	96.0	52.0-153			18.8	20
Benzo(k)fluoranthene	2.00	1.54	1.92	77.0	96.0	58.0-148		J3	22.0	20
Chrysene	2.00	1.99	2.20	99.5	110	64.0-144			10.0	20
Dibenz(a,h)anthracene	2.00	1.56	2.01	78.0	100	52.0-155		J3	25.2	20
Fluoranthene	2.00	2.40	2.51	120	126	69.0-153			4.48	20

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

(LCS) R4257377-1 08/11/25 09:18 • (LCSD) R4257377-3 08/11/25 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	2.00	2.11	2.17	105	108	64.0-136			2.80	20
Indeno(1,2,3-cd)pyrene	2.00	1.58	1.89	79.0	94.5	54.0-153			17.9	20
Naphthalene	2.00	1.99	2.13	99.5	106	61.0-137			6.80	20
Phenanthrene	2.00	2.04	2.16	102	108	62.0-137			5.71	20
Pyrene	2.00	1.83	1.92	91.5	96.0	60.0-142			4.80	20
1-Methylnaphthalene	2.00	2.31	2.42	115	121	66.0-142			4.65	20
2-Methylnaphthalene	2.00	2.12	2.24	106	112	62.0-136			5.50	20
2-Chloronaphthalene	2.00	1.89	1.99	94.5	99.5	64.0-140			5.15	20
<i>(S) Nitrobenzene-d5</i>				98.5	102	31.0-160				
<i>(S) 2-Fluorobiphenyl</i>				97.0	104	48.0-148				
<i>(S) p-Terphenyl-d14</i>				86.0	95.0	37.0-146				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Ds

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

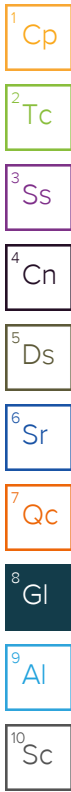
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
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.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
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.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
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.

