

Chevron - CO

Sample Delivery Group: L1863504
Samples Received: 05/28/2025
Project Number: 37525
Description: White 1-1, 12-3, 22-4, 34-1, 2TB

Report To: CDH Team
2115 117th Avenue
Greeley, CO 80631

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
AST01@0-6IN L1863504-01	5
Qc: Quality Control Summary	7
Wet Chemistry by Method 7199	7
Wet Chemistry by Method 9045D	8
Wet Chemistry by Method 9050AMod	9
Metals (ICP) by Method 6010B-NE493 Ch 2	10
Metals (ICPMS) by Method 6020	11
Volatile Organic Compounds (GC) by Method 8015D	12
Volatile Organic Compounds (GC/MS) by Method 8260D	13
Semi-Volatile Organic Compounds (GC) by Method 8015M	14
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	15
Gl: Glossary of Terms	17
Al: Accreditations & Locations	18
Sc: Sample Chain of Custody	19

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SAMPLE SUMMARY

AST01@0-6IN L1863504-01

Collected by: Jack Willey
 Collected date/time: 05/27/25 10:25
 Received date/time: 05/28/25 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2529508	1	06/04/25 15:13	06/04/25 15:13	BAG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2527980	1	06/03/25 12:03	06/05/25 10:20	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2530419	1	06/04/25 09:00	06/04/25 11:03	RJP	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2530433	1	06/04/25 11:00	06/04/25 15:07	RJP	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2529543	2	06/04/25 12:26	06/04/25 17:20	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2528022	5	06/03/25 17:01	06/08/25 23:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D	WG2528252	1	05/30/25 10:06	06/01/25 17:36	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2527400	1	05/30/25 10:06	05/31/25 00:16	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2528790	1	06/04/25 06:45	06/05/25 08:03	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2528775	1	06/03/25 06:44	06/03/25 18:06	VDR	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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	1.83		1	06/04/2025 15:13	WG2529508

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.200	1	06/05/2025 10:20	WG2527980

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.34		1	06/04/2025 11:03	WG2530419

Sample Narrative:

L1863504-01 WG2530419: 8.34 at 23.2C

Wet Chemistry by Method 9050AMod

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	0.201	mmhos/cm		0.0100	1	06/04/2025 15:07	WG2530433

Sample Narrative:

L1863504-01 WG2530433: at 25C

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

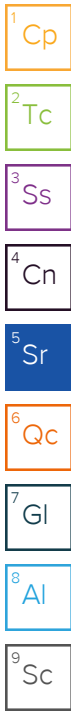
Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.04		0.400	2	06/04/2025 17:20	WG2529543

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.41		0.100	5	06/08/2025 23:10	WG2528022
Barium	89.5		10.0	5	06/08/2025 23:10	WG2528022
Cadmium	ND		0.100	5	06/08/2025 23:10	WG2528022
Copper	ND		10.0	5	06/08/2025 23:10	WG2528022
Lead	ND		10.0	5	06/08/2025 23:10	WG2528022
Nickel	ND		10.0	5	06/08/2025 23:10	WG2528022
Selenium	0.146		0.100	5	06/08/2025 23:10	WG2528022
Silver	ND		0.500	5	06/08/2025 23:10	WG2528022
Zinc	ND		50.0	5	06/08/2025 23:10	WG2528022

Volatile Organic Compounds (GC) by Method 8015D

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	06/01/2025 17:36	WG2528252
(S) a, a, a-Trifluorotoluene(FID)	98.4		77.0-120		06/01/2025 17:36	WG2528252



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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/31/2025 00:16	WG2527400
Ethylbenzene	ND		0.0100	1	05/31/2025 00:16	WG2527400
Toluene	ND		0.0100	1	05/31/2025 00:16	WG2527400
1,2,4-Trimethylbenzene	ND		0.00500	1	05/31/2025 00:16	WG2527400
1,3,5-Trimethylbenzene	ND		0.00500	1	05/31/2025 00:16	WG2527400
Xylenes, Total	ND		0.100	1	05/31/2025 00:16	WG2527400
(S) Toluene-d8	107		75.0-131		05/31/2025 00:16	WG2527400
(S) 4-Bromofluorobenzene	92.5		67.0-138		05/31/2025 00:16	WG2527400
(S) 1,2-Dichloroethane-d4	88.9		70.0-130		05/31/2025 00:16	WG2527400

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	06/05/2025 08:03	WG2528790
C28-C36 Motor Oil Range	ND		4.00	1	06/05/2025 08:03	WG2528790
(S) o-Terphenyl	55.0		18.0-148		06/05/2025 08:03	WG2528790

6 Qc

7 Gl

8 Al

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Acenaphthene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Acenaphthylene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Benzo(a)anthracene	ND		0.00600	1	06/03/2025 18:06	WG2528775
Benzo(a)pyrene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Benzo(b)fluoranthene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Benzo(g,h,i)perylene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Benzo(k)fluoranthene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Chrysene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Dibenz(a,h)anthracene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Fluoranthene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Fluorene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Indeno(1,2,3-cd)pyrene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Naphthalene	ND		0.00300	1	06/03/2025 18:06	WG2528775
Phenanthrene	ND		0.0330	1	06/03/2025 18:06	WG2528775
Pyrene	ND		0.0330	1	06/03/2025 18:06	WG2528775
1-Methylnaphthalene	ND		0.00300	1	06/03/2025 18:06	WG2528775
2-Methylnaphthalene	ND		0.0120	1	06/03/2025 18:06	WG2528775
(S) p-Terphenyl-d14	94.3		23.0-120		06/03/2025 18:06	WG2528775
(S) Nitrobenzene-d5	85.5		14.0-149		06/03/2025 18:06	WG2528775
(S) 2-Fluorobiphenyl	94.7		34.0-125		06/03/2025 18:06	WG2528775

9 Sc

Method Blank (MB)

(MB) R4226156-1 06/05/25 07:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium	U		0.200	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1863503-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1863503-02 06/05/25 09:28 • (DUP) R4226156-7 06/05/25 09:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	0.287	ND	1	200	P1	20

L1863521-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1863521-12 06/05/25 11:02 • (DUP) R4226156-8 06/05/25 11:34

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

Laboratory Control Sample (LCS)

(LCS) R4226156-2 06/05/25 07:32

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Hexavalent Chromium	10.0	9.52	95.2	80.0-120	

L1863503-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1863503-01 06/05/25 08:14 • (MS) R4226156-4 06/05/25 08:35 • (MSD) R4226156-5 06/05/25 08:46

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	20.0	0.206	19.5	19.4	96.5	95.8	1	75.0-125			0.756	20

L1863503-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1863503-01 06/05/25 08:14 • (MS) R4226156-6 06/05/25 08:56

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Hexavalent Chromium	631	0.206	541	85.8	50	75.0-125	

L1863455-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1863455-01 06/04/25 11:03 • (DUP) R4225297-2 06/04/25 11:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.26	8.25	1	0.121		1

Sample Narrative:

OS: 8.26 at 23.5C
 DUP: 8.25 at 23.4C

L1863525-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1863525-02 06/04/25 11:03 • (DUP) R4225297-3 06/04/25 11:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.89	7.90	1	0.127		1

Sample Narrative:

OS: 7.89 at 23.3C
 DUP: 7.9 at 23.3C

Laboratory Control Sample (LCS)

(LCS) R4225297-1 06/04/25 11:03

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

Sample Narrative:

LCS: 9.97 at 23.4C



Method Blank (MB)

(MB) R4225480-1 06/04/25 15:07

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

Sample Narrative:

BLANK: at 25C

L1863455-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1863455-02 06/04/25 15:07 • (DUP) R4225480-3 06/04/25 15:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	ND	0.284	1	0.176		20

Sample Narrative:

OS: at 25C
DUP: at 25C

L1863525-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1863525-01 06/04/25 15:07 • (DUP) R4225480-4 06/04/25 15:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	ND	3.50	1	0.285		20

Sample Narrative:

OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4225480-2 06/04/25 15:07

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4225662-1 06/04/25 16:46

Analyte	MB Result mg/l	<u>MB Qualifier</u>	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) R4225662-2 06/04/25 16:49 • (LCSD) R4225662-3 06/04/25 16:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.05	1.04	105	104	80.0-120			0.797	20

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

Method Blank (MB)

(MB) R4227384-1 06/08/25 21:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	0.100
Barium	U		10.0	10.0
Cadmium	U		0.100	0.100
Copper	U		10.0	10.0
Lead	U		10.0	10.0
Nickel	U		10.0	10.0
Selenium	U		0.100	0.100
Silver	U		0.500	0.500
Zinc	U		50.0	50.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS)

(LCS) R4227384-2 06/08/25 21:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	85.5	85.5	80.0-120	
Barium	100	80.6	80.6	80.0-120	
Cadmium	100	90.3	90.3	80.0-120	
Copper	100	83.2	83.2	80.0-120	
Lead	100	82.9	82.9	80.0-120	
Nickel	100	90.6	90.6	80.0-120	
Selenium	100	84.8	84.8	80.0-120	
Silver	20.0	18.3	91.6	80.0-120	
Zinc	100	85.4	85.4	80.0-120	

⁷Gl

⁸Al

⁹Sc

L1863503-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1863503-03 06/08/25 21:41 • (MS) R4227384-5 06/08/25 21:50 • (MSD) R4227384-6 06/08/25 21:53

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	5.31	91.1	86.5	85.8	81.2	5	75.0-125			5.13	20
Barium	100	122	227	197	105	74.6	5	75.0-125	J6		14.3	20
Cadmium	100	0.162	88.5	83.7	88.4	83.5	5	75.0-125			5.62	20
Copper	100	10.5	96.4	91.2	85.9	80.7	5	75.0-125			5.47	20
Lead	100	ND	93.4	85.8	93.4	85.8	5	75.0-125			8.47	20
Nickel	100	14.2	102	96.5	87.8	82.3	5	75.0-125			5.49	20
Selenium	100	0.329	83.8	83.0	83.4	82.7	5	75.0-125			0.917	20
Silver	20.0	ND	19.0	17.5	95.2	87.4	5	75.0-125			8.48	20
Zinc	100	ND	131	123	131	123	5	75.0-125	J5		5.97	20

Method Blank (MB)

(MB) R4224357-3 06/01/25 10:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0800	0.100
^(S) a,a,a-Trifluorotoluene(FID)	98.6			77.0-120

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

(LCS) R4224357-1 06/01/25 09:43 • (LCSD) R4224357-2 06/01/25 10:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.00	5.01	5.00	100	100	72.0-127			0.200	20
^(S) a,a,a-Trifluorotoluene(FID)				110	109	77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4225002-3 05/30/25 19:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.00100	0.00100
Ethylbenzene	U		0.0100	0.0100
Toluene	U		0.0100	0.0100
1,2,4-Trimethylbenzene	U		0.00500	0.00500
1,3,5-Trimethylbenzene	U		0.00500	0.00500
Xylenes, Total	U		0.100	0.100
(S) Toluene-d8	109			75.0-131
(S) 4-Bromofluorobenzene	97.8			67.0-138
(S) 1,2-Dichloroethane-d4	88.5			70.0-130

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

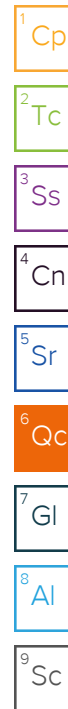
(LCS) R4225002-1 05/30/25 17:26 • (LCSD) R4225002-2 05/30/25 17:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.111	0.112	88.8	89.6	70.0-123			0.897	20
Ethylbenzene	0.125	0.129	0.130	103	104	74.0-126			0.772	20
Toluene	0.125	0.128	0.133	102	106	75.0-121			3.83	20
1,2,4-Trimethylbenzene	0.125	0.147	0.148	118	118	70.0-126			0.678	20
1,3,5-Trimethylbenzene	0.125	0.149	0.155	119	124	73.0-127			3.95	20
Xylenes, Total	0.375	0.385	0.404	103	108	72.0-127			4.82	20
(S) Toluene-d8				107	107	75.0-131				
(S) 4-Bromofluorobenzene				96.1	97.2	67.0-138				
(S) 1,2-Dichloroethane-d4				93.5	90.6	70.0-130				

L1863501-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1863501-01 05/30/25 23:36 • (MS) R4225002-4 05/31/25 02:55 • (MSD) R4225002-5 05/31/25 03:15

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Benzene	0.125	ND	0.0987	0.107	79.0	85.6	1	10.0-149			8.07	37
Ethylbenzene	0.125	ND	0.117	0.125	93.6	100	1	10.0-160			6.61	38
Toluene	0.125	ND	0.116	0.120	92.8	96.0	1	10.0-156			3.39	38
1,2,4-Trimethylbenzene	0.125	ND	0.133	0.138	106	110	1	10.0-160			3.69	36
1,3,5-Trimethylbenzene	0.125	ND	0.133	0.139	106	111	1	10.0-160			4.41	38
Xylenes, Total	0.375	ND	0.354	0.378	94.4	101	1	10.0-160			6.56	38
(S) Toluene-d8					106	104		75.0-131				
(S) 4-Bromofluorobenzene					96.5	94.7		67.0-138				
(S) 1,2-Dichloroethane-d4					92.5	92.0		70.0-130				



Method Blank (MB)

(MB) R4225739-1 06/04/25 16:13

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	65.0			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4225739-2 06/04/25 16:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	33.7	67.4	50.0-150	
(S) o-Terphenyl			76.0	18.0-148	

L1863493-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1863493-09 06/04/25 21:59 • (MS) R4225739-3 06/04/25 22:16 • (MSD) R4225739-4 06/04/25 22:32

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	48.9	4.40	38.1	38.3	68.9	68.2	1	50.0-150			0.524	20
(S) o-Terphenyl					71.2	71.8		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4225015-2 06/03/25 14:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.0330	0.0330
Acenaphthene	U		0.0330	0.0330
Acenaphthylene	U		0.0330	0.0330
Benzo(a)anthracene	U		0.00600	0.00600
Benzo(a)pyrene	U		0.0330	0.0330
Benzo(b)fluoranthene	U		0.0330	0.0330
Benzo(g,h,i)perylene	U		0.0330	0.0330
Benzo(k)fluoranthene	U		0.0330	0.0330
Chrysene	U		0.0330	0.0330
Dibenz(a,h)anthracene	U		0.0330	0.0330
Fluoranthene	U		0.0330	0.0330
Fluorene	U		0.0330	0.0330
Indeno(1,2,3-cd)pyrene	U		0.0330	0.0330
Naphthalene	U		0.00300	0.00300
Phenanthrene	U		0.0330	0.0330
Pyrene	U		0.0330	0.0330
1-Methylnaphthalene	U		0.00300	0.00300
2-Methylnaphthalene	U		0.0120	0.0120
<i>(S) p-Terphenyl-d14</i>	96.4			23.0-120
<i>(S) Nitrobenzene-d5</i>	81.8			14.0-149
<i>(S) 2-Fluorobiphenyl</i>	95.4			34.0-125

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R4225015-1 06/03/25 14:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0748	93.5	50.0-126	
Acenaphthene	0.0800	0.0683	85.4	50.0-120	
Acenaphthylene	0.0800	0.0734	91.8	50.0-120	
Benzo(a)anthracene	0.0800	0.0694	86.8	45.0-120	
Benzo(a)pyrene	0.0800	0.0586	73.3	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0678	84.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0756	94.5	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0704	88.0	49.0-125	
Chrysene	0.0800	0.0746	93.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0802	100	47.0-125	
Fluoranthene	0.0800	0.0811	101	49.0-129	
Fluorene	0.0800	0.0755	94.4	49.0-120	

Laboratory Control Sample (LCS)

(LCS) R4225015-1 06/03/25 14:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Indeno(1,2,3-cd)pyrene	0.0800	0.0716	89.5	46.0-125	
Naphthalene	0.0800	0.0708	88.5	50.0-120	
Phenanthrene	0.0800	0.0753	94.1	47.0-120	
Pyrene	0.0800	0.0683	85.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0758	94.8	51.0-121	
2-Methylnaphthalene	0.0800	0.0724	90.5	50.0-120	
<i>(S) p-Terphenyl-d14</i>			99.6	23.0-120	
<i>(S) Nitrobenzene-d5</i>			89.1	14.0-149	
<i>(S) 2-Fluorobiphenyl</i>			105	34.0-125	

L1863500-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1863500-01 06/03/25 16:38 • (MS) R4225015-3 06/03/25 16:55 • (MSD) R4225015-4 06/03/25 17:13

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 %
Anthracene	0.0788	ND	0.0785	0.0769	99.6	98.1	1	10.0-145			2.06	30
Acenaphthene	0.0788	ND	0.0710	0.0708	90.1	90.3	1	14.0-127			0.282	27
Acenaphthylene	0.0788	ND	0.0765	0.0762	97.1	97.2	1	21.0-124			0.393	25
Benzo(a)anthracene	0.0788	ND	0.0764	0.0762	97.0	97.2	1	10.0-139			0.262	30
Benzo(a)pyrene	0.0788	ND	0.0730	0.0734	92.6	93.6	1	10.0-141			0.546	31
Benzo(b)fluoranthene	0.0788	ND	0.0668	0.0670	84.8	85.5	1	10.0-140			0.299	36
Benzo(g,h,i)perylene	0.0788	ND	0.0746	0.0714	94.7	91.1	1	10.0-140			4.38	33
Benzo(k)fluoranthene	0.0788	ND	0.0685	0.0687	86.9	87.6	1	10.0-137			0.292	31
Chrysene	0.0788	ND	0.0773	0.0770	98.1	98.2	1	10.0-145			0.389	30
Dibenz(a,h)anthracene	0.0788	ND	0.0762	0.0789	96.7	101	1	10.0-132			3.48	31
Fluoranthene	0.0788	ND	0.0886	0.0897	112	114	1	10.0-153			1.23	33
Fluorene	0.0788	ND	0.0794	0.0791	101	101	1	11.0-130			0.379	29
Indeno(1,2,3-cd)pyrene	0.0788	ND	0.0732	0.0717	92.9	91.5	1	10.0-137			2.07	32
Naphthalene	0.0788	ND	0.0716	0.0730	90.9	93.1	1	10.0-135			1.94	27
Phenanthrene	0.0788	ND	0.0765	0.0770	97.1	98.2	1	10.0-144			0.651	31
Pyrene	0.0788	ND	0.0681	0.0684	86.4	87.2	1	10.0-148			0.440	35
1-Methylnaphthalene	0.0788	ND	0.0793	0.0797	101	102	1	10.0-142			0.503	28
2-Methylnaphthalene	0.0788	ND	0.0732	0.0749	92.9	95.5	1	10.0-137			2.30	28
<i>(S) p-Terphenyl-d14</i>					97.4	95.8		23.0-120				
<i>(S) Nitrobenzene-d5</i>					89.4	90.3		14.0-149				
<i>(S) 2-Fluorobiphenyl</i>					105	103		34.0-125				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

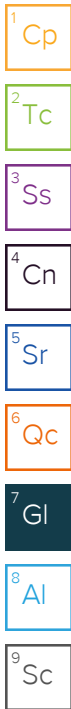
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
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
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.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.



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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

