ANALYTICAL REPORT

September 09, 2025

Chevron - CO

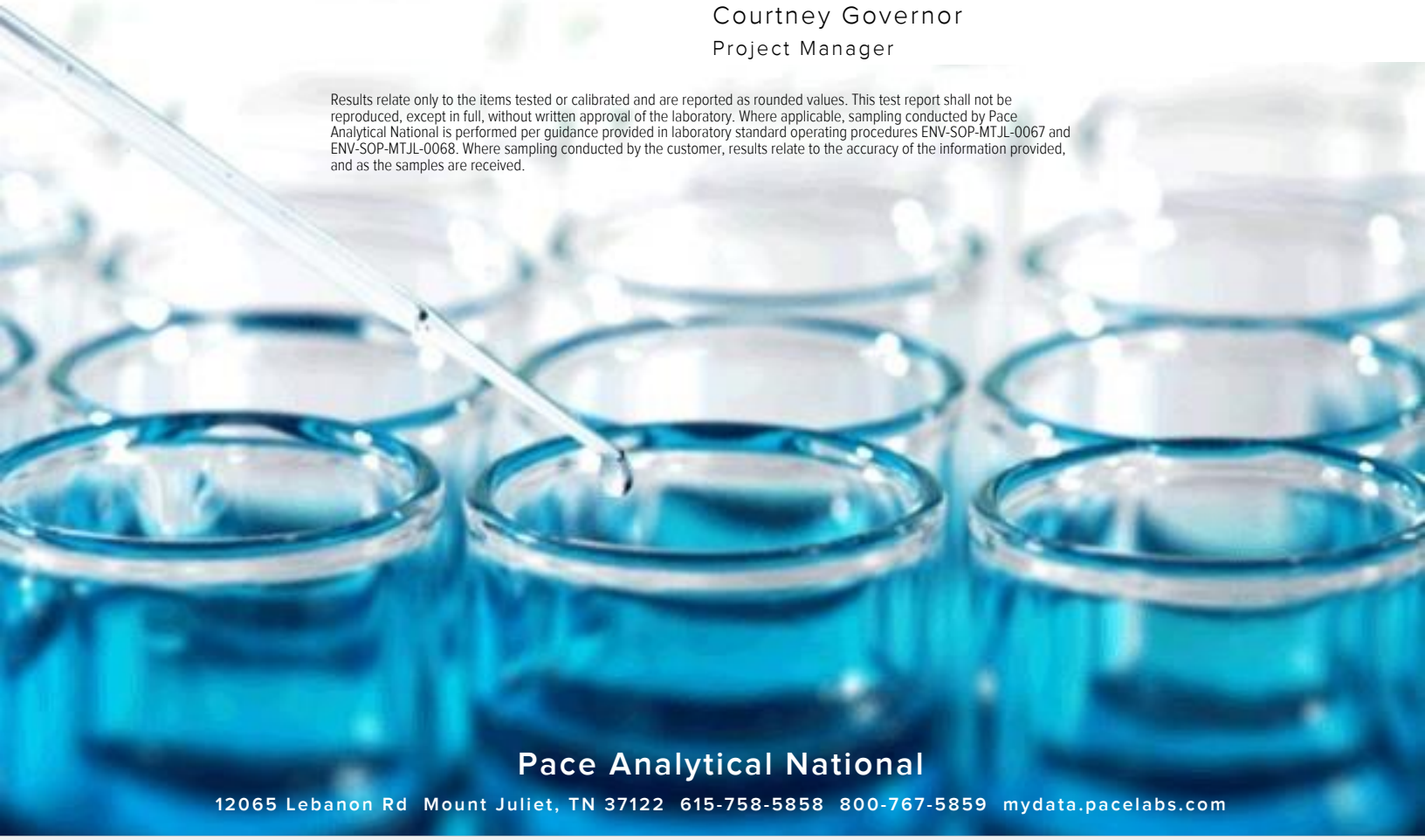
Sample Delivery Group:	L1883421
Samples Received:	07/30/2025
Project Number:	40465
Description:	Cache 17-52 WH

Report To:

CDH Team
2115 117th Avenue
Greeley, CO 80631

Entire Report Reviewed By:

Courtney Governor
Project Manager



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

TABLE OF CONTENTS

WH01@4' L1883421-01

Collected by: Nathan Ingebritson
Collected date/time: 07/29/25 08:04
Received date/time: 07/30/25 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2576159	1	08/09/25 20:03	08/09/25 20:03	BAG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2576095	1	08/08/25 18:53	08/24/25 09:53	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2576909	1	08/10/25 14:27	08/11/25 14:46	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2576910	1	08/10/25 14:29	08/15/25 23:30	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2576171	1	08/09/25 23:21	08/10/25 17:38	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2573752	5	08/06/25 10:22	08/20/25 20:21	TMT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D	WG2571505	25	07/31/25 21:01	08/02/25 14:39	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2571841	1	07/31/25 21:01	08/02/25 22:42	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2573089	1	08/07/25 09:00	08/07/25 18:17	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2573125	1	08/07/25 06:22	08/07/25 19:15	DMG	Mt. Juliet, TN

WH01-S@3' L1883421-02

Collected by: Nathan Ingebritson
Collected date/time: 07/29/25 08:10
Received date/time: 07/30/25 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2576159	1	08/09/25 20:06	08/09/25 20:06	BAG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2576095	1	08/08/25 18:53	08/24/25 10:11	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2576909	1	08/10/25 14:27	08/11/25 14:46	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2576910	1	08/10/25 14:29	08/15/25 23:30	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2576171	1	08/09/25 23:21	08/10/25 17:42	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2573752	5	08/06/25 10:22	08/20/25 20:24	TMT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D	WG2571505	25	07/31/25 21:01	08/02/25 15:00	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2571841	1	07/31/25 21:01	08/02/25 23:02	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2573089	1	08/07/25 09:00	08/07/25 17:39	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2573125	1	08/07/25 06:22	08/07/25 19:35	DMG	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.

Courtney Governor
Project Manager

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	3.68		1	08/09/2025 20:03	WG2576159

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.200	1	08/24/2025 09:53	WG2576095

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	9.64		1	08/11/2025 14:46	WG2576909

Sample Narrative:

L1883421-01 WG2576909: 9.64 at 21.2C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	0.460	mmhos/cm		0.0100	1	08/15/2025 23:30	WG2576910

Sample Narrative:

L1883421-01 WG2576910: at 25C

Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.100	1	08/10/2025 17:38	WG2576171

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.28		0.100	5	08/20/2025 20:21	WG2573752
Barium	58.4		10.0	5	08/20/2025 20:21	WG2573752
Cadmium	ND		0.100	5	08/20/2025 20:21	WG2573752
Copper	ND		10.0	5	08/20/2025 20:21	WG2573752
Lead	ND		10.0	5	08/20/2025 20:21	WG2573752
Nickel	ND		10.0	5	08/20/2025 20:21	WG2573752
Selenium	0.712		0.100	5	08/20/2025 20:21	WG2573752
Silver	ND		0.500	5	08/20/2025 20:21	WG2573752
Zinc	ND		50.0	5	08/20/2025 20:21	WG2573752

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		2.50	25	08/02/2025 14:39	WG2571505
(S) a,a,a-Trifluorotoluene(FID)	*101*		*77.0-120*		*08/02/2025 14:39*	WG2571505

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	08/02/2025 22:42	WG2571841
Ethylbenzene	ND		0.0100	1	08/02/2025 22:42	WG2571841
Toluene	ND	J3	0.0100	1	08/02/2025 22:42	WG2571841
1,2,4-Trimethylbenzene	ND		0.00500	1	08/02/2025 22:42	WG2571841
1,3,5-Trimethylbenzene	ND		0.00500	1	08/02/2025 22:42	WG2571841
Xylenes, Total	ND		0.100	1	08/02/2025 22:42	WG2571841
(S) Toluene-d8	*100*		*75.0-131*		*08/02/2025 22:42*	WG2571841
(S) 4-Bromofluorobenzene	*100*		*67.0-138*		*08/02/2025 22:42*	WG2571841
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*08/02/2025 22:42*	WG2571841

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	12.8		4.00	1	08/07/2025 18:17	WG2573089
C28-C36 Motor Oil Range	29.6		4.00	1	08/07/2025 18:17	WG2573089
(S) o-Terphenyl	*54.4*		*18.0-148*		*08/07/2025 18:17*	WG2573089

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	08/07/2025 19:15	WG2573125
Acenaphthene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Acenaphthylene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Benzo(a)anthracene	ND		0.00600	1	08/07/2025 19:15	WG2573125
Benzo(a)pyrene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Benzo(b)fluoranthene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Benzo(g,h,i)perylene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Benzo(k)fluoranthene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Chrysene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Dibenz(a,h)anthracene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Fluoranthene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Fluorene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Indeno(1,2,3-cd)pyrene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Naphthalene	ND		0.00300	1	08/07/2025 19:15	WG2573125
Phenanthrene	ND		0.0330	1	08/07/2025 19:15	WG2573125
Pyrene	ND		0.0330	1	08/07/2025 19:15	WG2573125
1-Methylnaphthalene	ND		0.00300	1	08/07/2025 19:15	WG2573125
2-Methylnaphthalene	ND		0.0120	1	08/07/2025 19:15	WG2573125
(S) p-Terphenyl-d14	*93.9*		*23.0-120*		*08/07/2025 19:15*	WG2573125
(S) Nitrobenzene-d5	*91.3*		*14.0-149*		*08/07/2025 19:15*	WG2573125
(S) 2-Fluorobiphenyl	*100*		*34.0-125*		*08/07/2025 19:15*	WG2573125

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.397		1	08/09/2025 20:06	WG2576159

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.200	1	08/24/2025 10:11	WG2576095

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.32		1	08/11/2025 14:46	WG2576909

Sample Narrative:

L1883421-02 WG2576909: 8.32 at 21.3C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	0.210	mmhos/cm		0.0100	1	08/15/2025 23:30	WG2576910

Sample Narrative:

L1883421-02 WG2576910: at 25C

Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.100	1	08/10/2025 17:42	WG2576171

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.05		0.100	5	08/20/2025 20:24	WG2573752
Barium	56.9		10.0	5	08/20/2025 20:24	WG2573752
Cadmium	ND		0.100	5	08/20/2025 20:24	WG2573752
Copper	ND		10.0	5	08/20/2025 20:24	WG2573752
Lead	ND		10.0	5	08/20/2025 20:24	WG2573752
Nickel	ND		10.0	5	08/20/2025 20:24	WG2573752
Selenium	0.418		0.100	5	08/20/2025 20:24	WG2573752
Silver	ND		0.500	5	08/20/2025 20:24	WG2573752
Zinc	ND		50.0	5	08/20/2025 20:24	WG2573752

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		2.50	25	08/02/2025 15:00	WG2571505
(S) a,a,a-Trifluorotoluene(FID)	*101*		*77.0-120*		*08/02/2025 15:00*	WG2571505

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	08/02/2025 23:02	WG2571841
Ethylbenzene	ND		0.0100	1	08/02/2025 23:02	WG2571841
Toluene	ND	J3	0.0100	1	08/02/2025 23:02	WG2571841
1,2,4-Trimethylbenzene	ND		0.00500	1	08/02/2025 23:02	WG2571841
1,3,5-Trimethylbenzene	ND		0.00500	1	08/02/2025 23:02	WG2571841
Xylenes, Total	ND		0.100	1	08/02/2025 23:02	WG2571841
(S) Toluene-d8	*99.9*		*75.0-131*		*08/02/2025 23:02*	WG2571841
(S) 4-Bromofluorobenzene	*101*		*67.0-138*		*08/02/2025 23:02*	WG2571841
(S) 1,2-Dichloroethane-d4	*107*		*70.0-130*		*08/02/2025 23:02*	WG2571841

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	08/07/2025 17:39	WG2573089
C28-C36 Motor Oil Range	ND		4.00	1	08/07/2025 17:39	WG2573089
(S) o-Terphenyl	*57.3*		*18.0-148*		*08/07/2025 17:39*	WG2573089

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	08/07/2025 19:35	WG2573125
Acenaphthene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Acenaphthylene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Benzo(a)anthracene	ND		0.00600	1	08/07/2025 19:35	WG2573125
Benzo(a)pyrene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Benzo(b)fluoranthene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Benzo(g,h,i)perylene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Benzo(k)fluoranthene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Chrysene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Dibenz(a,h)anthracene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Fluoranthene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Fluorene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Indeno(1,2,3-cd)pyrene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Naphthalene	ND		0.00300	1	08/07/2025 19:35	WG2573125
Phenanthrene	ND		0.0330	1	08/07/2025 19:35	WG2573125
Pyrene	ND		0.0330	1	08/07/2025 19:35	WG2573125
1-Methylnaphthalene	ND		0.00300	1	08/07/2025 19:35	WG2573125
2-Methylnaphthalene	ND		0.0120	1	08/07/2025 19:35	WG2573125
(S) p-Terphenyl-d14	*116*		*23.0-120*		*08/07/2025 19:35*	WG2573125
(S) Nitrobenzene-d5	*98.7*		*14.0-149*		*08/07/2025 19:35*	WG2573125
(S) 2-Fluorobiphenyl	*104*		*34.0-125*		*08/07/2025 19:35*	WG2573125

Method Blank (MB)

(MB) R4270510-1 08/24/25 08:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	U		0.200	0.200

L1883416-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1883416-03 08/24/25 09:17 • (DUP) R4270510-7 08/24/25 09:26

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

L1883421-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1883421-01 08/24/25 09:53 • (DUP) R4270510-8 08/24/25 10:02

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

Laboratory Control Sample (LCS)

(LCS) R4270510-2 08/24/25 08:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.2	102	80.0-120	

L1883416-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1883416-01 08/24/25 08:32 • (MS) R4270510-3 08/24/25 08:41 • (MSD) R4270510-4 08/24/25 08:50

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 %
Hexavalent Chromium	20.0	ND	18.8	20.0	93.8	100	1	75.0-125			6.53	20

L1883416-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1883416-01 08/24/25 08:32 • (MS) R4270510-5 08/24/25 08:59

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	646	ND	702	109	50	75.0-125	

L1883416-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1883416-01 08/11/25 14:46 • (DUP) R4257014-2 08/11/25 14:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.12	8.12	1	0.000		1

Sample Narrative:

OS: 8.12 at 22C

DUP: 8.12 at 22.1C

L1883790-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1883790-13 08/11/25 14:46 • (DUP) R4257014-3 08/11/25 14:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.11	8.11	1	0.000		1

Sample Narrative:

OS: 8.11 at 21C

DUP: 8.11 at 21.3C

Laboratory Control Sample (LCS)

(LCS) R4257014-1 08/11/25 14:46

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

Sample Narrative:

LCS: 9.98 at 21.4C

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

Method Blank (MB)

(MB) R4259508-1 08/15/25 23:30

Analyte	MB Result mmhos/cm	MB Qualifier	MB MDL mmhos/cm	MB RDL mmhos/cm
Specific Conductance	U		0.0100	0.0100

Sample Narrative:
BLANK: at 25C

L1883418-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1883418-01 08/15/25 23:30 • (DUP) R4259508-3 08/15/25 23:30

Analyte	Original Result mmhos/cm	DUP Result mmhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	0.242	0.242	1	0.124		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1883790-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1883790-12 08/15/25 23:30 • (DUP) R4259508-4 08/15/25 23:30

Analyte	Original Result mmhos/cm	DUP Result mmhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	0.627	0.627	1	0.000		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4259508-2 08/15/25 23:30

Analyte	Spike Amount mmhos/cm	LCS Result mmhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	0.581	0.546	94.0	90.0-110	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4256688-1 08/10/25 16:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	U		0.0199	0.100

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

(LCS) R4256688-2 08/10/25 16:38 • (LCSD) R4256688-3 08/10/25 16:41

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	0.978	0.982	97.8	98.2	80.0-120			0.426	20

Method Blank (MB)

(MB) R4261600-1 08/20/25 19:28

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

Laboratory Control Sample (LCS)

(LCS) R4261600-2 08/20/25 19:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	94.9	94.9	80.0-120	
Barium	100	95.4	95.4	80.0-120	
Cadmium	100	96.1	96.1	80.0-120	
Copper	100	94.1	94.1	80.0-120	
Lead	100	89.6	89.6	80.0-120	
Nickel	100	96.3	96.3	80.0-120	
Selenium	100	92.5	92.5	80.0-120	
Silver	20.0	18.9	94.3	80.0-120	
Zinc	100	94.3	94.3	80.0-120	

L1883765-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1883765-04 08/20/25 19:35 • (MS) R4261600-5 08/20/25 19:45 • (MSD) R4261600-6 08/20/25 19:48

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	1.41	90.4	96.5	89.0	95.1	5	75.0-125			6.53	20
Barium	100	42.4	134	139	92.0	97.0	5	75.0-125			3.65	20
Cadmium	100	ND	89.7	95.9	89.7	95.9	5	75.0-125			6.73	20
Copper	100	ND	90.4	97.0	90.4	97.0	5	75.0-125			7.07	20
Lead	100	ND	86.1	93.7	86.1	93.7	5	75.0-125			8.43	20
Nickel	100	ND	94.2	101	94.2	101	5	75.0-125			6.86	20
Selenium	100	0.581	89.4	92.9	88.8	92.3	5	75.0-125			3.84	20
Silver	20.0	ND	18.0	18.9	89.8	94.4	5	75.0-125			5.06	20
Zinc	100	ND	106	113	106	113	5	75.0-125			5.94	20

Method Blank (MB)

(MB) R4255017-3 08/02/25 12:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		2.00	2.50
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*

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

(LCS) R4255017-1 08/02/25 11:46 • (LCSD) R4255017-2 08/02/25 12:08

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	5.52	5.44	110	109	72.0-127			1.46	20
(S) a,a,a-Trifluorotoluene(FID)				*107*	*108*	*77.0-120*				

L1883790-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1883790-13 08/02/25 20:45 • (MS) R4255017-4 08/02/25 21:06 • (MSD) R4255017-5 08/02/25 21:28

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	125	ND	116	130	92.8	104	25	10.0-151			11.4	28
(S) a,a,a-Trifluorotoluene(FID)					*103*	*103*		*77.0-120*				

Method Blank (MB)

(MB) R4255382-3 08/02/25 17:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL 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	*98.9*			*75.0-131*
(S) 4-Bromofluorobenzene	*99.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

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

(LCS) R4255382-1 08/02/25 16:20 • (LCSD) R4255382-2 08/02/25 16:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.625	0.543	0.514	86.9	82.2	70.0-123			5.49	20
Ethylbenzene	0.625	0.560	0.531	89.6	85.0	74.0-126			5.32	20
Toluene	0.625	0.657	0.524	105	83.8	75.0-121		J3	22.5	20
1,2,4-Trimethylbenzene	0.625	0.643	0.611	103	97.8	70.0-126			5.10	20
1,3,5-Trimethylbenzene	0.625	0.636	0.601	102	96.2	73.0-127			5.66	20
Xylenes, Total	1.88	1.72	1.61	91.5	85.6	72.0-127			6.61	20
(S) Toluene-d8				*117*	*94.3*	*75.0-131*				
(S) 4-Bromofluorobenzene				*100*	*98.3*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*119*	*70.0-130*				

L1883395-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1883395-05 08/02/25 18:44 • (MS) R4255382-4 08/03/25 01:41 • (MSD) R4255382-5 08/03/25 02:01

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.625	ND	0.115	0.110	18.4	17.6	1	10.0-149			4.44	37
Ethylbenzene	0.625	ND	0.123	0.119	19.7	19.0	1	10.0-160			3.31	38
Toluene	0.625	ND	0.122	0.120	19.5	19.2	1	10.0-156			1.65	38
1,2,4-Trimethylbenzene	0.625	ND	0.138	0.137	22.1	21.9	1	10.0-160			0.727	36
1,3,5-Trimethylbenzene	0.625	ND	0.142	0.138	22.7	22.1	1	10.0-160			2.86	38
Xylenes, Total	1.88	ND	0.373	0.355	19.8	18.9	1	10.0-160			4.95	38
(S) Toluene-d8					*98.4*	*95.4*		*75.0-131*				
(S) 4-Bromofluorobenzene					*100*	*97.2*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*110*	*106*		*70.0-130*				

Method Blank (MB)

(MB) R4255768-1 08/07/25 17:14

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	0.536	J	0.274	4.00
(S) o-Terphenyl	*50.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4255768-2 08/07/25 17:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	30.5	61.0	50.0-150	
(S) o-Terphenyl			*46.1*	*18.0-148*	

L1883410-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1883410-01 08/07/25 20:23 • (MS) R4255768-3 08/07/25 20:48 • (MSD) R4255768-4 08/07/25 21:01

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	48.3	ND	ND	ND	83.0	89.1	20	50.0-150			7.67	20
(S) o-Terphenyl					*41.3*	*41.0*		*18.0-148*	J7	J7		

Sample Narrative:

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

Method Blank (MB)

(MB) R4255982-2 08/07/25 13:37

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
(S) p-Terphenyl-d14	*117*			*23.0-120*
(S) Nitrobenzene-d5	*97.2*			*14.0-149*
(S) 2-Fluorobiphenyl	*105*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4255982-1 08/07/25 13:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0659	82.4	50.0-126	
Acenaphthene	0.0800	0.0648	81.0	50.0-120	
Acenaphthylene	0.0800	0.0648	81.0	50.0-120	
Benzo(a)anthracene	0.0800	0.0674	84.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0586	73.3	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0683	85.4	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0682	85.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0700	87.5	49.0-125	
Chrysene	0.0800	0.0724	90.5	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0699	87.4	47.0-125	
Fluoranthene	0.0800	0.0769	96.1	49.0-129	
Fluorene	0.0800	0.0699	87.4	49.0-120	

Laboratory Control Sample (LCS)

(LCS) R4255982-1 08/07/25 13:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Indeno(1,2,3-cd)pyrene	0.0800	0.0665	83.1	46.0-125	
Naphthalene	0.0800	0.0694	86.8	50.0-120	
Phenanthrene	0.0800	0.0700	87.5	47.0-120	
Pyrene	0.0800	0.0703	87.9	43.0-123	
1-Methylnaphthalene	0.0800	0.0726	90.8	51.0-121	
2-Methylnaphthalene	0.0800	0.0725	90.6	50.0-120	
(S) p-Terphenyl-d14			*111*	*23.0-120*	
(S) Nitrobenzene-d5			*97.2*	*14.0-149*	
(S) 2-Fluorobiphenyl			*103*	*34.0-125*	

L1883397-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1883397-04 08/07/25 16:56 • (MS) R4255982-3 08/07/25 17:16 • (MSD) R4255982-4 08/07/25 17:36

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0788	ND	0.0604	0.0649	76.6	81.9	1	10.0-145			7.18	30
Acenaphthene	0.0788	ND	0.0627	0.0679	79.6	85.7	1	14.0-127			7.96	27
Acenaphthylene	0.0788	ND	0.0623	0.0678	79.1	85.6	1	21.0-124			8.46	25
Benzo(a)anthracene	0.0788	ND	0.0636	0.0695	80.7	87.8	1	10.0-139			8.87	30
Benzo(a)pyrene	0.0788	ND	0.0628	0.0688	79.7	86.9	1	10.0-141			9.12	31
Benzo(b)fluoranthene	0.0788	ND	0.0661	0.0713	83.9	90.0	1	10.0-140			7.57	36
Benzo(g,h,i)perylene	0.0788	ND	0.0662	0.0720	84.0	90.9	1	10.0-140			8.39	33
Benzo(k)fluoranthene	0.0788	ND	0.0655	0.0722	83.1	91.2	1	10.0-137			9.73	31
Chrysene	0.0788	ND	0.0703	0.0756	89.2	95.5	1	10.0-145			7.27	30
Dibenz(a,h)anthracene	0.0788	ND	0.0665	0.0728	84.4	91.9	1	10.0-132			9.05	31
Fluoranthene	0.0788	ND	0.0736	0.0782	93.4	98.7	1	10.0-153			6.06	33
Fluorene	0.0788	ND	0.0671	0.0729	85.2	92.0	1	11.0-130			8.29	29
Indeno(1,2,3-cd)pyrene	0.0788	ND	0.0640	0.0699	81.2	88.3	1	10.0-137			8.81	32
Naphthalene	0.0788	ND	0.0671	0.0724	85.2	91.4	1	10.0-135			7.60	27
Phenanthrene	0.0788	ND	0.0666	0.0705	84.5	89.0	1	10.0-144			5.69	31
Pyrene	0.0788	ND	0.0694	0.0753	88.1	95.1	1	10.0-148			8.15	35
1-Methylnaphthalene	0.0788	ND	0.0703	0.0766	89.2	96.7	1	10.0-142			8.58	28
2-Methylnaphthalene	0.0788	ND	0.0704	0.0770	89.3	97.2	1	10.0-137			8.96	28
(S) p-Terphenyl-d14					*115*	*123*		*23.0-120*		J1		
(S) Nitrobenzene-d5					*96.7*	*103*		*14.0-149*				
(S) 2-Fluorobiphenyl					*105*	*112*		*34.0-125*				

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
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

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	LAO000356
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.

Company Name/Address:
Chevron - CO

2115 117th Avenue
Greeley, CO 80631

Billing Information:
~~Erica Zuniga~~
~~Dan Peterson~~
2115 117th Avenue
Greeley, CO 80631

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to:
CDH Team 970-304-5000

Email To: **danpeterson@chevron.com;CVX-PM@cdhconsult.com;jason.davidson@chevron.**

Project Description: Cache 17-52 WH

City/State Collected:

Please Circle: PT MT CT ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project # 40465

Lab Project # **CHEGCO-CDH**

SDG # L1662421

Table # **K024**

Collected by (print): Nathan Engebritsen

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day ✗ STD TAT

Quote #

Date Results Needed

Acctnum: **CHEGCO**
Template: **T270844**
Prelogin: **P1140482**
PM: **824 - Chris Ward**
PB:

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Full TABLE915 4ozClr-NoPres	TABLE915BG 4ozClr-NoPres								Remarks	Sample # (lab only)
WH01@4'	Grab	SS	4'	7/29/25	8:04	3	X										01
WH01-S@3'	↓	SS	3'	↓	8:10	3	X										02

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # Multi

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date: 7/29/25	Time: 16:37	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date: 07/30/25	Time: 1000	Received by: (Signature)	Temp: Multi °C Bottles Received: 6
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Easton Orgn	Date: 7/30/25 Time: 1500

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

L# L1683421

Multiple Parcel Form

Parcel Tracking Number	Infrared Thermometer ID	Temperature Reading (°C)	Correction Factor (°C)	Corrected Temperature (°C)	Custody Seal Intact
SWA	TLA9	3.6	-0.1	3.5	Yes / No / Not Present
1	1	1.2	1	1.1	Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present

Easton Dyer
Name

7/30/25
Date