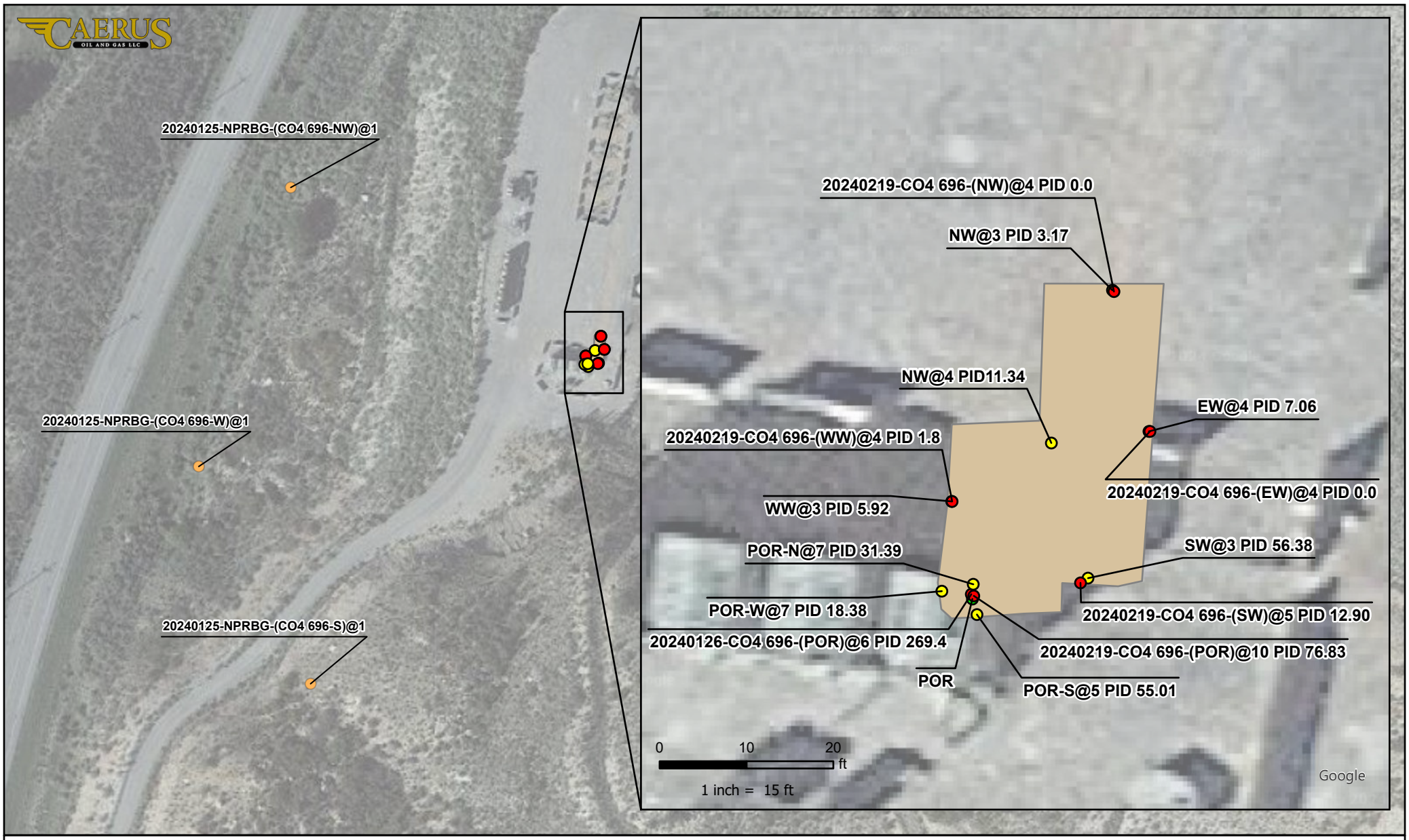
FIGURES



LEGEND

- Background Sample
- Soil Sample Location
- FL Excavation
- Spill Origin

0 160 320 ft

1 inch = 160 ft

N W E S

Project No: 024-004	CO4 696 FL Release Caerus Oil and Gas LLC NENW, Section 4, T6S R96W, 6th PM Garfield County, Colorado	ENTRADA CONSULTING GROUP 330 Grand Avenue, Unit C Grand Junction, CO 81501 970-579-1015	Figure
Map By: RRM			1
Date: 3/11/2024			

TABLES

TABLE 1

C04 696
CAERUS OPERATING, LLC
GARFIELD COUNTY, CO

CECMC TABLE 915-1 RESIDENTIAL SOIL SCREENING LEVEL
SOIL ANALYTICAL RESULTS - ORGANIC

		Analyte	GRO	ORO	DRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Acenaphthene	Anthracene	Benz(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Chrysene	Dibenz(a,h)anthracen	Fluoranthene	Fluorene	Indeno(1,2,3-cd)Pyre	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Pyrene
		915-1 PROTECTION OF GW	500	500	500	0.0026	0.69	0.78	9.9	0.0081	0.0087	0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	5.9	0.54	0.98	0.006	0.019	0.0038	1.3
		915-1 RESIDENTIAL SOIL	500	500	500	1.2	490	5.8	58	30	27	360	1800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	2	180
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Name	**Sample Date**	**Sample Type**																								
20240126-C04 696-(POR)@6	2024-01-26	Excavation	**671**	**1230**	<12.0	**2.11**	25.1	2.75	42.8	11.5	12	<0.00600	<0.00600	<0.00600	0.0176	<0.00600	<0.00600	0.00682	<0.00600	0.00894	0.338	0.0082	2.57	8.58	**4.37**	0.00731
20240219-C04 696-(EW)@4	2024-02-19	Excavation	0.381	37.9	92.6	0.00492	0.0211	<0.00250	0.0187	<0.00500	0.00742	<0.00600	<0.00600	<0.00600	0.0176	<0.00600	<0.00600	0.00747	<0.00600	0.00613	<0.00600	0.00637	<0.0200	0.0296	<0.0200	<0.00600
20240219-C04 696-(NW)@4	2024-02-19	Excavation	0.28	29	103	<0.00100	<0.00500	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.0200	<0.0200	<0.0200	<0.00600
20240219-C04 696-(POR)@10	2024-02-19	Excavation	2.46	8.73	18.9	0.00823	0.0998	0.031	0.393	0.21	0.256	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.0200	<0.0200	<0.0200	<0.00600
20240219-C04 696-(SW)@5	2024-02-19	Excavation	0.563	9.48	12.5	0.00448	0.0354	0.0065	0.26	0.0394	0.107	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.0200	<0.0200	<0.0200	<0.00600
20240219-C04 696-(WW)@4	2024-02-19	Excavation	0.599	51.7	114	0.00623	0.0427	0.00613	0.166	0.0563	0.175	<0.00600	<0.00600	0.00848	0.0346	0.0079	0.00928	0.0121	<0.00600	0.0103	<0.00600	0.0144	0.0237	0.0515	0.035	<0.00600

Notes:
Bold with silver highlight: Exceeds RSSLs
Bold with blue highlight: Exceeds POGs
"<" (as in, less than laboratory reporting detection limit)

TABLE 2

C04 696
CAERUS OPERATING, LLC
GARFIELD COUNTY, CO

CECMC TABLE 915-1 RESIDENTIAL SOIL SCREENING LEVEL
SOIL ANALYTICAL RESULTS - ORGANIC

		Analyte	EC	SAR	pH	Boron	Arsenic	Barium	Cadmium	Chromium VI	Copper	Lead	Nickel	Selenium	Silver	Zinc
		915-1 PROTECTION OF GW	4	6	8.3	2	0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
		915-1 RESIDENTIAL SOIL	4	6	8.3	2	0.68	15000	71	0.3	3100	400	1500	390	390	23000
		Units	mmhos/cm	No Unit	SU	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Name	**Sample Date**	**Sample Type**														
20240126-C04 696-(POR)@6	2024-01-26	Excavation	2.47	4.93	7.64	1.11	**7.11**	1560	<1.00	**<1.00**	11.7	7.67	8	<2.50	<0.500	29.6
20240219-C04 696-(EW)@4	2024-02-19	Excavation	0.282	0.593	**8.6**	0.31	**12.3**	1500	<1.00	**<1.00**	16.6	11.1	12.3	<2.50	<0.500	46.1
20240219-C04 696-(NW)@4	2024-02-19	Excavation	0.284	0.641	**8.62**	0.63	**20.5**	553	<1.00	**<1.00**	22.3	14.7	15.9	<2.50	<0.500	53.4
20240219-C04 696-(POR)@10	2024-02-19	Excavation	2.92	**8.58**	**8.32**	1.3	**8.93**	214	<1.00	**<1.00**	14.8	9.95	12.7	<2.50	<0.500	50.8
20240219-C04 696-(SW)@5	2024-02-19	Excavation	0.246	0.54	**8.63**	0.745	**12.1**	1990	<1.00	**<1.00**	18.4	10.6	12.6	<2.50	<0.500	43.5
20240219-C04 696-(WW)@4	2024-02-19	Excavation	0.348	0.625	**8.61**	0.741	**11.7**	2110	<1.00	**<1.00**	18.8	12.5	13	<2.50	<0.500	47.1
20240126-NPRBG-(C04 696-NW)@1	2024-01-26	Background	0.489	0.595	7.72	0.495	**17.7**	632	<1.00	**<1.00**	18.6	12	12.9	<2.50	<0.500	50
20240126-NPRBG-(C04 696-S)@1	2024-01-26	Background	0.257	0.0984	7.59	0.619	**4.51**	159	<1.00	**<1.00**	10.3	9.19	8.29	<2.50	<0.500	38.3
20240126-NPRBG-(C04 696-W)@1	2024-01-26	Background	0.334	0.298	7.7	0.565	**9.19**	236	<1.00	**<1.00**	13.6	10.3	10.4	<2.50	<0.500	42.1

Notes:
Bold with silver highlight: Exceeds RSSLs
Bold with blue highlight: Exceeds POGs
"<" (as in, less than laboratory reporting detection limit)

PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Site:	Project:	Project Number:
CO4 696	NPR CO4 696 Flowline Release	024-004

Date:
2024-02-19

Description:
View of POR excavation prior to beginning excavation, looking southwest.

Date:
2024-02-19

Description:
View of west wall and POR excavation, looking west.

PHOTOGRAPHIC LOG

Site:	Project:	Project Number:
CO4 696	NPR CO4 696 Flowline Release	024-004

Date:
2024-02-19

Description:
View of POR excavation after excavating to 10 feet, looking southwest.

Date:
2024-02-19

Description:
View of south wall sample location, looking south.

PHOTOGRAPHIC LOG

Site:	Project:	Project Number:
CO4 696	NPR CO4 696 Flowline Release	024-004

Date:
2024-02-19

Description:
View of entire excavation at the POR, looking southwest.

SOIL

LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

February 06, 2024

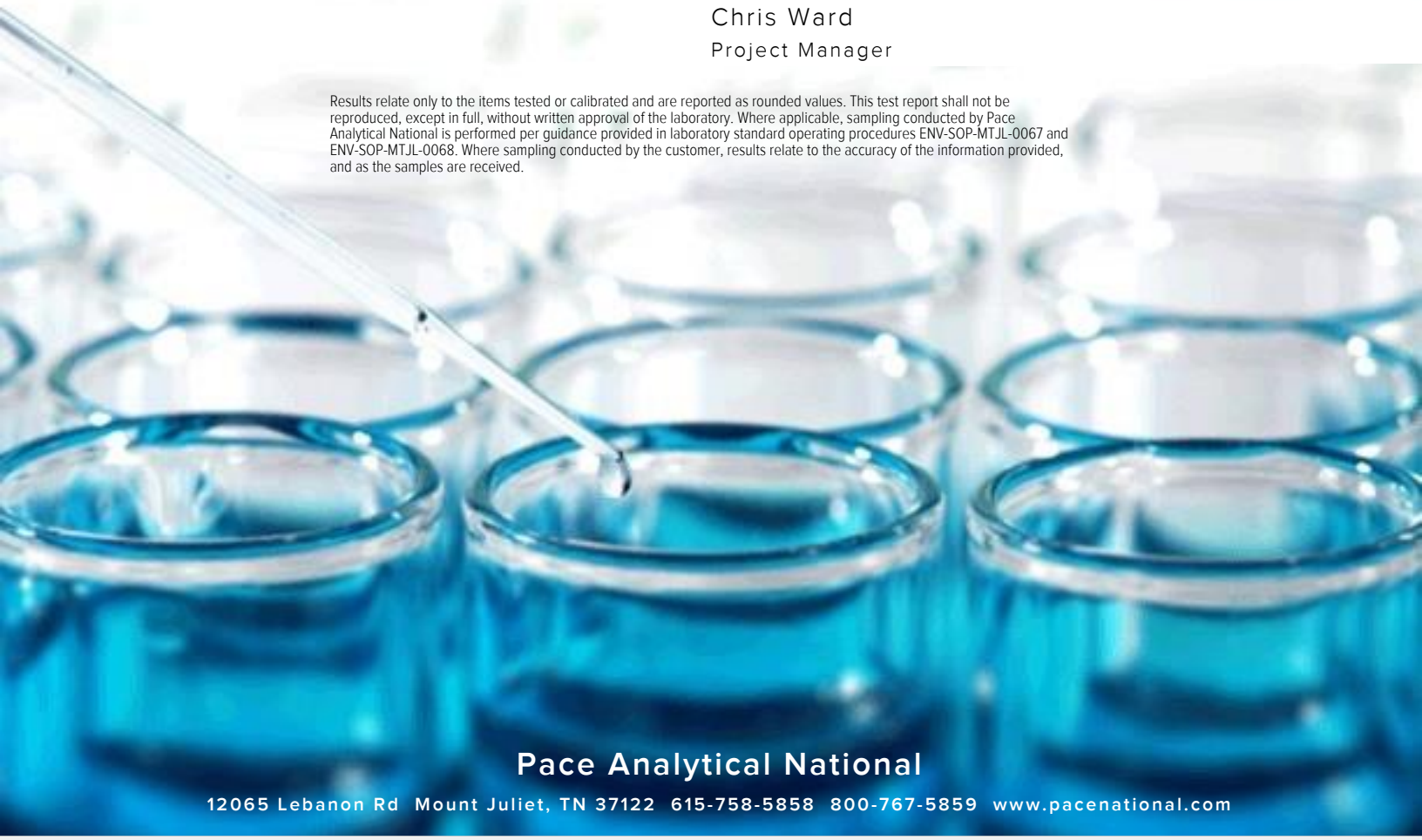
Caerus Oil and Gas

Sample Delivery Group:	L1699699
Samples Received:	01/27/2024
Project Number:	
Description:	NPR C04 696 Flowline Release
Report To:	Blair Rollins 143 Diamond Avenue Parachute, CO 81635

Entire Report Reviewed By: Chris Ward

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 www.pacenational.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

20240126-C04 696-(POR)@6 L1699699-01 5

Qc: Quality Control Summary 7

Wet Chemistry by Method 7199 7

Wet Chemistry by Method 9045D 9

Wet Chemistry by Method 9050AMod 10

Metals (ICP) by Method 6010B-NE493 Ch 2 11

Metals (ICPMS) by Method 6020 12

Volatile Organic Compounds (GC) by Method 8015D/GRO 13

Volatile Organic Compounds (GC/MS) by Method 8260B 14

Semi-Volatile Organic Compounds (GC) by Method 8015M 16

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM 17

Gl: Glossary of Terms 19

Al: Accreditations & Locations 20

Sc: Sample Chain of Custody 21

20240126-C04 696-(POR)@6 L1699699-01 Solid

Collected by	Collected date/time	Received date/time
B. Abeyta	01/26/24 13:20	01/27/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2216911	1	02/01/24 17:13	02/01/24 17:13	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2215117	1	01/31/24 03:34	01/31/24 14:51	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2216217	1	01/30/24 14:19	01/31/24 16:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2215287	1	01/29/24 09:17	02/04/24 18:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2216913	1	02/01/24 12:54	02/01/24 22:07	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2214814	5	01/29/24 08:49	01/29/24 16:40	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2218097	100	01/31/24 09:44	02/01/24 21:54	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2218071	10	01/31/24 09:44	02/01/24 18:49	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2218988	40	01/31/24 09:44	02/03/24 21:26	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2217054	3	01/31/24 19:06	02/01/24 08:57	KAP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2217054	5	01/31/24 19:06	02/01/24 09:41	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2214950	1	01/29/24 18:59	01/30/24 02:12	AGW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2214950	20	01/29/24 18:59	02/03/24 07:45	MKM	Mt. Juliet, TN

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

Chris Ward

Chris Ward
Project Manager

Calculated Results

Analyte	Result SAR	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	4.93		1	02/01/2024 17:13	WG2216911

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	01/31/2024 14:51	WG2215117

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.64	T8	1	01/31/2024 16:30	WG2216217

Sample Narrative:

L1699699-01 WG2216217: 7.64 at 19.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	2470		10.0	1	02/04/2024 18:00	WG2215287

Sample Narrative:

L1699699-01 WG2215287: 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	1.11		0.200	1	02/01/2024 22:07	WG2216913

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.11		1.00	5	01/29/2024 16:40	WG2214814
Barium	1560		2.50	5	01/29/2024 16:40	WG2214814
Cadmium	ND		1.00	5	01/29/2024 16:40	WG2214814
Copper	11.7		5.00	5	01/29/2024 16:40	WG2214814
Lead	7.67		2.00	5	01/29/2024 16:40	WG2214814
Nickel	8.00		2.50	5	01/29/2024 16:40	WG2214814
Selenium	ND		2.50	5	01/29/2024 16:40	WG2214814
Silver	ND		0.500	5	01/29/2024 16:40	WG2214814
Zinc	29.6		25.0	5	01/29/2024 16:40	WG2214814

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	671		10.0	100	02/01/2024 21:54	WG2218097
(S) a,a,a-Trifluorotoluene(FID)	*89.2*		*77.0-120*		*02/01/2024 21:54*	WG2218097

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	2.11		0.0100	10	02/01/2024 18:49	WG2218071
Toluene	25.1		0.200	40	02/03/2024 21:26	WG2218988
Ethylbenzene	2.75		0.0250	10	02/01/2024 18:49	WG2218071
Xylenes, Total	42.8		0.0650	10	02/01/2024 18:49	WG2218071
1,2,4-Trimethylbenzene	11.5		0.0500	10	02/01/2024 18:49	WG2218071
1,3,5-Trimethylbenzene	12.0		0.0500	10	02/01/2024 18:49	WG2218071
(S) Toluene-d8	*101*		*75.0-131*		*02/01/2024 18:49*	WG2218071
(S) Toluene-d8	*96.1*		*75.0-131*		*02/03/2024 21:26*	WG2218988
(S) 4-Bromofluorobenzene	*99.6*		*67.0-138*		*02/01/2024 18:49*	WG2218071
(S) 4-Bromofluorobenzene	*106*		*67.0-138*		*02/03/2024 21:26*	WG2218988
(S) 1,2-Dichloroethane-d4	*116*		*70.0-130*		*02/01/2024 18:49*	WG2218071
(S) 1,2-Dichloroethane-d4	*96.8*		*70.0-130*		*02/03/2024 21:26*	WG2218988

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	1230		20.0	5	02/01/2024 09:41	WG2217054
C28-C36 Motor Oil Range	ND		12.0	3	02/01/2024 08:57	WG2217054
(S) o-Terphenyl	*52.3*		*18.0-148*		*02/01/2024 08:57*	WG2217054
(S) o-Terphenyl	*53.1*		*18.0-148*		*02/01/2024 09:41*	WG2217054

Sample Narrative:

L1699699-01 WG2217054: Dilution due to matrix.

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00600	1	01/30/2024 02:12	WG2214950
Anthracene	ND		0.00600	1	01/30/2024 02:12	WG2214950
Benzo(a)anthracene	ND		0.00600	1	01/30/2024 02:12	WG2214950
Benzo(b)fluoranthene	0.0176		0.00600	1	01/30/2024 02:12	WG2214950
Benzo(k)fluoranthene	ND		0.00600	1	01/30/2024 02:12	WG2214950
Benzo(a)pyrene	ND		0.00600	1	01/30/2024 02:12	WG2214950
Chrysene	0.00682		0.00600	1	01/30/2024 02:12	WG2214950
Dibenz(a,h)anthracene	ND		0.00600	1	01/30/2024 02:12	WG2214950
Fluoranthene	0.00894		0.00600	1	01/30/2024 02:12	WG2214950
Fluorene	0.338	J4	0.00600	1	01/30/2024 02:12	WG2214950
Indeno(1,2,3-cd)pyrene	0.00820		0.00600	1	01/30/2024 02:12	WG2214950
1-Methylnaphthalene	2.57		0.400	20	02/03/2024 07:45	WG2214950
2-Methylnaphthalene	8.58		0.400	20	02/03/2024 07:45	WG2214950
Naphthalene	4.37		0.400	20	02/03/2024 07:45	WG2214950
Pyrene	0.00731		0.00600	1	01/30/2024 02:12	WG2214950
(S) p-Terphenyl-d14	*84.1*		*23.0-120*		*01/30/2024 02:12*	WG2214950
(S) p-Terphenyl-d14	*100*	J7	*23.0-120*		*02/03/2024 07:45*	WG2214950
(S) Nitrobenzene-d5	*0.000*	J2	*14.0-149*		*01/30/2024 02:12*	WG2214950
(S) Nitrobenzene-d5	*0.000*	J7	*14.0-149*		*02/03/2024 07:45*	WG2214950
(S) 2-Fluorobiphenyl	*138*	J1	*34.0-125*		*01/30/2024 02:12*	WG2214950
(S) 2-Fluorobiphenyl	*119*	J7	*34.0-125*		*02/03/2024 07:45*	WG2214950

Sample Narrative:

L1699699-01 WG2214950: Surrogate failure due to matrix interference.

L1699699-01 WG2214950: Dilution and surrogate failure due to matrix interference.

QUALITY CONTROL SUMMARY

L1699699-01

Method Blank (MB)

(MB) R4028405-1 01/31/24 12:39

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

L1699588-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1699588-01 01/31/24 14:26 • (DUP) R4028405-11 01/31/24 14:32

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

L1699701-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1699701-01 01/31/24 15:28 • (DUP) R4028405-12 01/31/24 15:34

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) R4028405-2 01/31/24 12:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	11.0	110	80.0-120	

L1699583-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699583-01 01/31/24 12:53 • (MS) R4028405-3 01/31/24 12:59 • (MSD) R4028405-4 01/31/24 13:06

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	19.1	23.1	95.4	115	1	75.0-125			19.0	20

L1699583-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699583-04 01/31/24 13:37 • (MS) R4028405-7 01/31/24 13:55 • (MSD) R4028405-8 01/31/24 14:01

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 %
Hexavalent Chromium	20.0	ND	22.9	21.9	115	110	1	75.0-125			4.51	20

L1699583-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1699583-01 01/31/24 12:53 • (MS) R4028405-5 01/31/24 13:12

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	638	ND	782	123	50	75.0-125	

L1699583-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1699583-04 01/31/24 13:37 • (MS) R4028405-9 01/31/24 14:08

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	643	ND	687	107	50	75.0-125	

L1699585-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1699585-02 01/31/24 16:30 • (DUP) R4028423-2 01/31/24 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.10	8.08	1	0.247		1

Sample Narrative:

OS: 8.1 at 19.7C

DUP: 8.08 at 19.7C

L1699701-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1699701-03 01/31/24 16:30 • (DUP) R4028423-3 01/31/24 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	pH	su		%		%
pH	7.77	7.78	1	0.129		1

Sample Narrative:

OS: 7.77 at 19.7C

DUP: 7.78 at 19.7C

Laboratory Control Sample (LCS)

(LCS) R4028423-1 01/31/24 16:30

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 19.4C

Method Blank (MB)

(MB) R4029645-1 02/04/24 18:00

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

Sample Narrative:
BLANK: at 25C

L1699700-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1699700-01 02/04/24 18:00 • (DUP) R4029645-3 02/04/24 18:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	257	257	1	0.0390		20

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

L1699711-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1699711-03 02/04/24 18:00 • (DUP) R4029645-4 02/04/24 18:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	448	447	1	0.223		20

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

Laboratory Control Sample (LCS)

(LCS) R4029645-2 02/04/24 18:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	331	101	85.0-115	

Sample Narrative:
LCS: at 25C

QUALITY CONTROL SUMMARY

L1699699-01

Method Blank (MB)

(MB) R4029052-1 02/01/24 21:53

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

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

(LCS) R4029052-2 02/01/24 21:56 • (LCSD) R4029052-3 02/01/24 21:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.06	1.08	106	108	80.0-120			2.29	20

QUALITY CONTROL SUMMARY

L1699699-01

Method Blank (MB)

(MB) R4027382-1 01/29/24 15:56

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

Laboratory Control Sample (LCS)

(LCS) R4027382-2 01/29/24 15:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	93.6	93.6	80.0-120	
Barium	100	89.5	89.5	80.0-120	
Cadmium	100	98.0	98.0	80.0-120	
Copper	100	92.9	92.9	80.0-120	
Lead	100	94.5	94.5	80.0-120	
Nickel	100	97.2	97.2	80.0-120	
Selenium	100	95.3	95.3	80.0-120	
Silver	20.0	18.8	94.1	80.0-120	
Zinc	100	93.4	93.4	80.0-120	

L1699536-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699536-01 01/29/24 16:03 • (MS) R4027382-5 01/29/24 16:12 • (MSD) R4027382-6 01/29/24 16:16

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	7.65	95.2	91.4	87.5	83.8	5	75.0-125			4.04	20
Barium	100	41.4	124	122	82.2	80.6	5	75.0-125			1.30	20
Cadmium	100	ND	94.2	90.3	94.2	90.3	5	75.0-125			4.17	20
Copper	100	10.3	96.7	91.4	86.4	81.1	5	75.0-125			5.57	20
Lead	100	13.6	99.2	93.5	85.6	80.0	5	75.0-125			5.86	20
Nickel	100	8.45	99.5	95.6	91.0	87.1	5	75.0-125			3.98	20
Selenium	100	ND	92.8	85.1	92.3	84.6	5	75.0-125			8.67	20
Silver	20.0	ND	18.2	17.6	91.0	88.2	5	75.0-125			3.13	20
Zinc	100	28.2	116	109	87.3	81.1	5	75.0-125			5.46	20

QUALITY CONTROL SUMMARY

L1699699-01

Method Blank (MB)

(MB) R4028931-3 02/01/24 12:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.543	2.50
(S) a,a,a-Trifluorotoluene(FID)	*93.6*			*77.0-120*

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

(LCS) R4028931-1 02/01/24 11:04 • (LCSD) R4028931-2 02/01/24 11:24

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	5.50	5.48	5.60	99.6	102	72.0-127			2.17	20
(S) a,a,a-Trifluorotoluene(FID)				*99.8*	*103*	*77.0-120*				

L1699740-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699740-01 02/01/24 19:00 • (MS) R4028931-4 02/01/24 22:13 • (MSD) R4028931-5 02/01/24 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 %
TPH (GC/FID) Low Fraction	147	ND	138	112	105	85.5	25	10.0-151			20.8	28
(S) a,a,a-Trifluorotoluene(FID)					*101*	*102*		*77.0-120*				

Method Blank (MB)

(MB) R4029289-3 02/01/24 10:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*99.1*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*

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

(LCS) R4029289-1 02/01/24 09:19 • (LCSD) R4029289-2 02/01/24 09:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.128	0.132	102	106	70.0-123			3.08	20
Ethylbenzene	0.125	0.127	0.133	102	106	74.0-126			4.62	20
Xylenes, Total	0.375	0.376	0.375	100	100	72.0-127			0.266	20
1,2,4-Trimethylbenzene	0.125	0.110	0.112	88.0	89.6	70.0-126			1.80	20
1,3,5-Trimethylbenzene	0.125	0.117	0.118	93.6	94.4	73.0-127			0.851	20
(S) Toluene-d8				*103*	*105*	*75.0-131*				
(S) 4-Bromofluorobenzene				*102*	*103*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*119*	*117*	*70.0-130*				

Method Blank (MB)

(MB) R4029919-3 02/03/24 12:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Toluene	U		0.00130	0.00500
(S) Toluene-d8	*97.6*			*75.0-131*
(S) 4-Bromofluorobenzene	*92.3*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*93.4*			*70.0-130*

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

(LCS) R4029919-1 02/03/24 10:29 • (LCSD) R4029919-2 02/03/24 10:48

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 %
Toluene	0.125	0.110	0.110	88.0	88.0	75.0-121			0.000	20
(S) Toluene-d8				*96.1*	*92.9*	*75.0-131*				
(S) 4-Bromofluorobenzene				*98.2*	*100*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*95.9*	*93.5*	*70.0-130*				

Method Blank (MB)

(MB) R4028572-1 02/01/24 01:31

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	0.530	J	0.274	4.00
(S) o-Terphenyl	*59.5*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4028572-2 02/01/24 01:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.0	72.0	50.0-150	
(S) o-Terphenyl			*57.8*	*18.0-148*	

L1699697-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699697-02 02/01/24 02:41 • (MS) R4028572-3 02/01/24 02:56 • (MSD) R4028572-4 02/01/24 03:10

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	50.1	ND	42.1	35.3	80.2	67.0	1	50.0-150			17.6	20
(S) o-Terphenyl					*53.3*	*50.8*		*18.0-148*				

Method Blank (MB)

(MB) R4029355-2 01/30/24 00:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	*89.3*			*23.0-120*
(S) Nitrobenzene-d5	*120*			*14.0-149*
(S) 2-Fluorobiphenyl	*92.8*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4029355-1 01/29/24 23:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0862	108	50.0-120	
Anthracene	0.0800	0.0849	106	50.0-126	
Benzo(a)anthracene	0.0800	0.0864	108	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0832	104	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0797	99.6	49.0-125	
Benzo(a)pyrene	0.0800	0.0740	92.5	42.0-120	
Chrysene	0.0800	0.0880	110	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0807	101	47.0-125	
Fluoranthene	0.0800	0.0873	109	49.0-129	
Fluorene	0.0800	0.101	126	49.0-120	J4
Indeno(1,2,3-cd)pyrene	0.0800	0.0829	104	46.0-125	
1-Methylnaphthalene	0.0800	0.0925	116	51.0-121	
2-Methylnaphthalene	0.0800	0.0951	119	50.0-120	
Naphthalene	0.0800	0.0869	109	50.0-120	
Pyrene	0.0800	0.0841	105	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4029355-1 01/29/24 23:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*115*	*23.0-120*	
(S) Nitrobenzene-d5			*171*	*14.0-149*	J1
(S) 2-Fluorobiphenyl			*124*	*34.0-125*	

L1699701-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699701-04 01/30/24 03:23 • (MS) R4029355-3 01/30/24 03:40 • (MSD) R4029355-4 01/30/24 03:58

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 %
Acenaphthene	0.158	ND	0.141	0.0637	89.2	80.4	1	14.0-127		J3	75.5	27
Anthracene	0.158	ND	0.152	0.0684	96.2	86.4	1	10.0-145		J3	75.9	30
Benzo(a)anthracene	0.158	ND	0.154	0.0709	97.5	89.5	1	10.0-139		J3	73.9	30
Benzo(b)fluoranthene	0.158	ND	0.141	0.0635	89.2	80.2	1	10.0-140		J3	75.8	36
Benzo(k)fluoranthene	0.158	ND	0.130	0.0598	82.3	75.5	1	10.0-137		J3	74.0	31
Benzo(a)pyrene	0.158	ND	0.144	0.0656	91.1	82.8	1	10.0-141		J3	74.8	31
Chrysene	0.158	ND	0.137	0.0656	86.7	82.8	1	10.0-145		J3	70.5	30
Dibenz(a,h)anthracene	0.158	ND	0.140	0.0631	88.6	79.7	1	10.0-132		J3	75.7	31
Fluoranthene	0.158	ND	0.153	0.0718	96.8	90.7	1	10.0-153		J3	72.2	33
Fluorene	0.158	ND	0.165	0.0759	104	95.8	1	11.0-130		J3	74.0	29
Indeno(1,2,3-cd)pyrene	0.158	ND	0.145	0.0648	91.8	81.8	1	10.0-137		J3	76.5	32
1-Methylnaphthalene	0.158	ND	0.155	0.0770	94.4	89.9	1	10.0-142		J3	67.2	28
2-Methylnaphthalene	0.158	ND	0.162	0.0813	95.5	88.6	1	10.0-137		J3	66.3	28
Naphthalene	0.158	ND	0.146	0.0708	89.0	82.6	1	10.0-135		J3	69.4	27
Pyrene	0.158	ND	0.132	0.0625	83.5	78.9	1	10.0-148		J3	71.5	35
(S) p-Terphenyl-d14					*83.2*	*75.9*		*23.0-120*				
(S) Nitrobenzene-d5					*136*	*118*		*14.0-149*				
(S) 2-Fluorobiphenyl					*94.5*	*81.4*		*34.0-125*				

Sample Narrative:

MSD: RPD failures due to double spike added to MS by mistake.

Guide to Reading and Understanding Your Laboratory Report

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

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
T8	Sample(s) received past/too close to holding time expiration.

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:
Caerus Oil & Gas
143 Diamond Ave
Parachute,CO 81635

Billing Information:
Same as left.

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE
12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

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

SDG # 1699699
C225

Report to: Blair Rollins

Email To: brollins@caerusoilandgas.com

Project Description: NPR C04 696 Flowline Release

City/State Collected: CO

Please Circle: PT MT CT ET

Phone: (970) 640-6919

Client Project #

Lab Project #

Collected by (print): B. Abeyta

Site/Facility ID #

P.O. #

Collected by (signature): [signature]
Immediately
Packed on Ice N ____ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TABLE 915 GRO/DRO/ORO	TABLE 915 Metals	TABLE 915 VOCs	TABLE 915 pH, SPCON, SAR	TABLE 915 PAHs						Remarks	Sample # (lab only)
20240126-C04 696-(POR)@6	Grab	SS	6	01/26/2024	1320	4	X	X	X	X	X							-01

* 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 # 5882 7564 8030

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: X Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR	
[signature]	1/26/24	1730	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
[signature]	1/26/24	1800	[signature]	TLA8 . 1702.1	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK
			[signature]	1-27-24 9:20	

ANALYTICAL REPORT

February 05, 2024

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

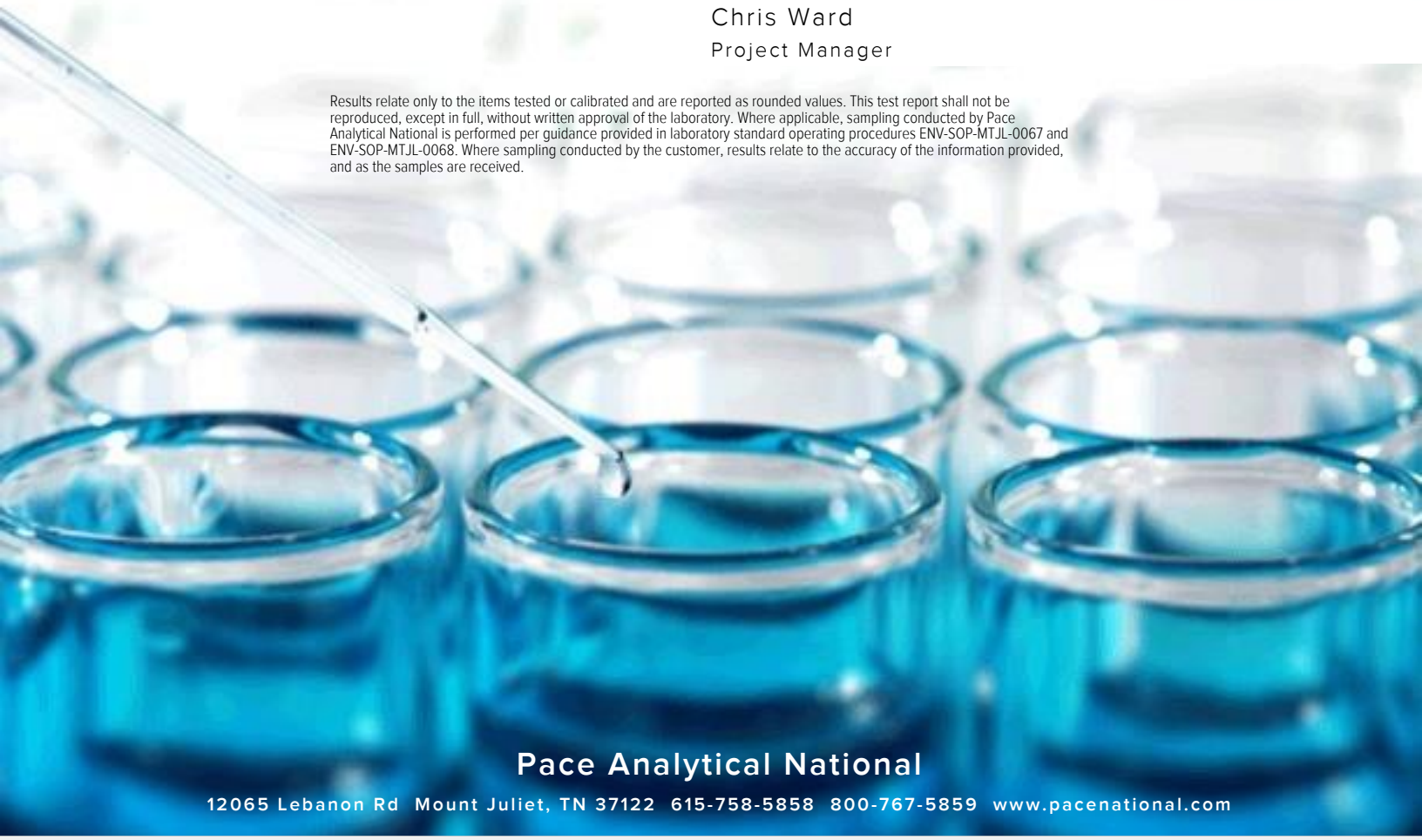
Caerus Oil and Gas

Sample Delivery Group:	L1699700
Samples Received:	01/27/2024
Project Number:	
Description:	NPR Backgrounds (C04 696)
Report To:	Jake J. / Brett M. / Blair R. / Andy V. 143 Diamond Avenue Parachute, CO 81635

Entire Report Reviewed By: Chris Ward

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 www.pacenational.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

20240126-NPRBG-(C04 696-S)@1 L1699700-01 5

20240126-NPRBG-(C04 696-W)@1 L1699700-02 6

20240126-NPRBG-(C04 696-NW)@1 L1699700-03 7

Qc: Quality Control Summary 8

Wet Chemistry by Method 7199 8

Wet Chemistry by Method 9045D 10

Wet Chemistry by Method 9050AMod 11

Metals (ICP) by Method 6010B-NE493 Ch 2 12

Metals (ICPMS) by Method 6020 13

Gl: Glossary of Terms 14

Al: Accreditations & Locations 15

Sc: Sample Chain of Custody 16

20240126-NPRBG-(C04 696-S)@1 L1699700-01 Solid

Collected by: B. Abeyta | Collected date/time: 01/26/24 13:00 | Received date/time: 01/27/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2216911	1	02/01/24 17:14	02/01/24 17:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2215117	1	01/31/24 03:34	01/31/24 15:09	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2216217	1	01/30/24 14:19	01/31/24 16:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2215287	1	01/29/24 09:17	02/04/24 18:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2216913	1	02/01/24 12:54	02/01/24 22:10	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2214814	5	01/29/24 08:49	01/29/24 16:43	LD	Mt. Juliet, TN

20240126-NPRBG-(C04 696-W)@1 L1699700-02 Solid

Collected by: B. Abeyta | Collected date/time: 01/26/24 14:00 | Received date/time: 01/27/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2216911	1	02/01/24 17:16	02/01/24 17:16	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2215117	1	01/31/24 03:34	01/31/24 15:16	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2216217	1	01/30/24 14:19	01/31/24 16:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2215287	1	01/29/24 09:17	02/04/24 18:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2216913	1	02/01/24 12:54	02/01/24 22:13	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2214814	5	01/29/24 08:49	01/29/24 16:46	LD	Mt. Juliet, TN

20240126-NPRBG-(C04 696-NW)@1 L1699700-03 Solid

Collected by: B. Abeyta | Collected date/time: 01/26/24 14:10 | Received date/time: 01/27/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2216911	1	02/01/24 17:18	02/01/24 17:18	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2215117	1	01/31/24 03:34	01/31/24 15:22	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2216217	1	01/30/24 14:19	01/31/24 16:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2215287	1	01/29/24 09:17	02/04/24 18:00	EPW	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2216913	1	02/01/24 12:54	02/01/24 22:16	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2214814	5	01/29/24 08:49	01/29/24 16:49	LD	Mt. Juliet, TN

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

Chris Ward

Chris Ward
Project Manager

Calculated Results

Analyte	Result SAR	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.0984		1	02/01/2024 17:14	WG2216911

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	01/31/2024 15:09	WG2215117

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.59	T8	1	01/31/2024 16:30	WG2216217

Sample Narrative:

L1699700-01 WG2216217: 7.59 at 19.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	257		10.0	1	02/04/2024 18:00	WG2215287

Sample Narrative:

L1699700-01 WG2215287: 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	0.619		0.200	1	02/01/2024 22:10	WG2216913

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.51		1.00	5	01/29/2024 16:43	WG2214814
Barium	159		2.50	5	01/29/2024 16:43	WG2214814
Cadmium	ND		1.00	5	01/29/2024 16:43	WG2214814
Copper	10.3		5.00	5	01/29/2024 16:43	WG2214814
Lead	9.19		2.00	5	01/29/2024 16:43	WG2214814
Nickel	8.29		2.50	5	01/29/2024 16:43	WG2214814
Selenium	ND		2.50	5	01/29/2024 16:43	WG2214814
Silver	ND		0.500	5	01/29/2024 16:43	WG2214814
Zinc	38.3		25.0	5	01/29/2024 16:43	WG2214814

Calculated Results

Analyte	Result SAR	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.298		1	02/01/2024 17:16	WG2216911

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	01/31/2024 15:16	WG2215117

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.70	T8	1	01/31/2024 16:30	WG2216217

Sample Narrative:

L1699700-02 WG2216217: 7.7 at 19.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	334		10.0	1	02/04/2024 18:00	WG2215287

Sample Narrative:

L1699700-02 WG2215287: 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	0.565		0.200	1	02/01/2024 22:13	WG2216913

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	9.19		1.00	5	01/29/2024 16:46	WG2214814
Barium	236		2.50	5	01/29/2024 16:46	WG2214814
Cadmium	ND		1.00	5	01/29/2024 16:46	WG2214814
Copper	13.6		5.00	5	01/29/2024 16:46	WG2214814
Lead	10.3		2.00	5	01/29/2024 16:46	WG2214814
Nickel	10.4		2.50	5	01/29/2024 16:46	WG2214814
Selenium	ND		2.50	5	01/29/2024 16:46	WG2214814
Silver	ND		0.500	5	01/29/2024 16:46	WG2214814
Zinc	42.1		25.0	5	01/29/2024 16:46	WG2214814

Calculated Results

Analyte	Result SAR	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.595		1	02/01/2024 17:18	WG2216911

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	01/31/2024 15:22	WG2215117

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.72	T8	1	01/31/2024 16:30	WG2216217

Sample Narrative:

L1699700-03 WG2216217: 7.72 at 19.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	489		10.0	1	02/04/2024 18:00	WG2215287

Sample Narrative:

L1699700-03 WG2215287: 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	0.495		0.200	1	02/01/2024 22:16	WG2216913

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	17.7		1.00	5	01/29/2024 16:49	WG2214814
Barium	632		2.50	5	01/29/2024 16:49	WG2214814
Cadmium	ND		1.00	5	01/29/2024 16:49	WG2214814
Copper	18.6		5.00	5	01/29/2024 16:49	WG2214814
Lead	12.0		2.00	5	01/29/2024 16:49	WG2214814
Nickel	12.9		2.50	5	01/29/2024 16:49	WG2214814
Selenium	ND		2.50	5	01/29/2024 16:49	WG2214814
Silver	ND		0.500	5	01/29/2024 16:49	WG2214814
Zinc	50.0		25.0	5	01/29/2024 16:49	WG2214814

QUALITY CONTROL SUMMARY

L1699700-01,02,03

Method Blank (MB)

(MB) R4028405-1 01/31/24 12:39

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

L1699588-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1699588-01 01/31/24 14:26 • (DUP) R4028405-11 01/31/24 14:32

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

L1699701-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1699701-01 01/31/24 15:28 • (DUP) R4028405-12 01/31/24 15:34

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) R4028405-2 01/31/24 12:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	11.0	110	80.0-120	

L1699583-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699583-01 01/31/24 12:53 • (MS) R4028405-3 01/31/24 12:59 • (MSD) R4028405-4 01/31/24 13:06

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	19.1	23.1	95.4	115	1	75.0-125			19.0	20

L1699583-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699583-04 01/31/24 13:37 • (MS) R4028405-7 01/31/24 13:55 • (MSD) R4028405-8 01/31/24 14:01

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 %
Hexavalent Chromium	20.0	ND	22.9	21.9	115	110	1	75.0-125			4.51	20

QUALITY CONTROL SUMMARY

L1699700-01,02,03

L1699583-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1699583-01 01/31/24 12:53 • (MS) R4028405-5 01/31/24 13:12

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	638	ND	782	123	50	75.0-125	

L1699583-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1699583-04 01/31/24 13:37 • (MS) R4028405-9 01/31/24 14:08

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	643	ND	687	107	50	75.0-125	

L1699585-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1699585-02 01/31/24 16:30 • (DUP) R4028423-2 01/31/24 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.10	8.08	1	0.247		1

Sample Narrative:

OS: 8.1 at 19.7C

DUP: 8.08 at 19.7C

L1699701-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1699701-03 01/31/24 16:30 • (DUP) R4028423-3 01/31/24 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	pH	su		%		%
pH	7.77	7.78	1	0.129		1

Sample Narrative:

OS: 7.77 at 19.7C

DUP: 7.78 at 19.7C

Laboratory Control Sample (LCS)

(LCS) R4028423-1 01/31/24 16:30

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 19.4C

Method Blank (MB)

(MB) R4029645-1 02/04/24 18:00

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

Sample Narrative:
BLANK: at 25C

L1699700-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1699700-01 02/04/24 18:00 • (DUP) R4029645-3 02/04/24 18:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	257	257	1	0.0390		20

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

L1699711-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1699711-03 02/04/24 18:00 • (DUP) R4029645-4 02/04/24 18:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	448	447	1	0.223		20

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

Laboratory Control Sample (LCS)

(LCS) R4029645-2 02/04/24 18:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	331	101	85.0-115	

Sample Narrative:
LCS: at 25C

QUALITY CONTROL SUMMARY

L1699700-01,02,03

Method Blank (MB)

(MB) R4029052-1 02/01/24 21:53

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

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

(LCS) R4029052-2 02/01/24 21:56 • (LCSD) R4029052-3 02/01/24 21:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.06	1.08	106	108	80.0-120			2.29	20

QUALITY CONTROL SUMMARY

L1699700-01,02,03

Method Blank (MB)

(MB) R4027382-1 01/29/24 15:56

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

Laboratory Control Sample (LCS)

(LCS) R4027382-2 01/29/24 15:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	93.6	93.6	80.0-120	
Barium	100	89.5	89.5	80.0-120	
Cadmium	100	98.0	98.0	80.0-120	
Copper	100	92.9	92.9	80.0-120	
Lead	100	94.5	94.5	80.0-120	
Nickel	100	97.2	97.2	80.0-120	
Selenium	100	95.3	95.3	80.0-120	
Silver	20.0	18.8	94.1	80.0-120	
Zinc	100	93.4	93.4	80.0-120	

L1699536-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699536-01 01/29/24 16:03 • (MS) R4027382-5 01/29/24 16:12 • (MSD) R4027382-6 01/29/24 16:16

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	7.65	95.2	91.4	87.5	83.8	5	75.0-125			4.04	20
Barium	100	41.4	124	122	82.2	80.6	5	75.0-125			1.30	20
Cadmium	100	ND	94.2	90.3	94.2	90.3	5	75.0-125			4.17	20
Copper	100	10.3	96.7	91.4	86.4	81.1	5	75.0-125			5.57	20
Lead	100	13.6	99.2	93.5	85.6	80.0	5	75.0-125			5.86	20
Nickel	100	8.45	99.5	95.6	91.0	87.1	5	75.0-125			3.98	20
Selenium	100	ND	92.8	85.1	92.3	84.6	5	75.0-125			8.67	20
Silver	20.0	ND	18.2	17.6	91.0	88.2	5	75.0-125			3.13	20
Zinc	100	28.2	116	109	87.3	81.1	5	75.0-125			5.46	20

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.
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
T8	Sample(s) received past/too close to holding time expiration.

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:
Caerus Oil & Gas
143 Diamond Ave
Parachute,CO 81635

Billing Information:
Same as left.

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

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

SDG # 1699700

C226

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

Report to: Blair Rollins

Email To: brollins@caerusoilandgas.com

Project Description: NPR Backgrounds (C04 696)

City/State Collected: CO

Please Circle: PT MT CT ET

Phone: (970) 640-6919

Client Project #

Lab Project #

Collected by (print): B. Abeyta

Site/Facility ID #

P.O. #

Collected by (signature): [signature]

Immediately Packed on Ice N ____ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TABLE 915 pH, SPCON, SAR	TABLE 915 Metals	Remarks	Sample # (lab only)
20240126-NPRBG-(C04 696-S)@1	Grab	SS	1	01/26/24	1300	2 1	X	X		-01
20240126-NPRBG-(C04 696-W)@1	Grab	SS	1	01/26/24	1400	2 1	X	X		-02
20240126-NPRBG-(C04 696-NW)@1	Grab	SS	1	01/26/24	1410	2 1	X	X		-03

* 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 # 5882 7564 8030

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: X Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
[signature]	1/26/24	1730	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: TLAB .170z.)	If preservation required by Login: Date/Time
[signature]	1/26/24	1800			
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK
			[signature]	1-27-24 9:00	