November 20, 2024

Blair Rollins
Environmental Specialist
QB Energy Operating, LLC (Operator: 10456)
brollins@qb-energy.com

Report of Work Completed – Tank Valve Release

ECMC Location Name (ID)	SHIDELER FEDERAL-67S93W/26SESE (334232)
Client Location Name	P26W
ECMC Remediation Project	23856
Legal Description	SESE Sec. 26 T7S-R93W
Coordinates (Lat/Long)	39.410515 / -107.734642
County	Garfield County, Colorado

Mr. Rollins,

Confluence Compliance Companies, LLC (Confluence) prepared this Report of Work Completed (ROWC) for QB Energy Operating, LLC (QB) to document findings of investigation activities of the tank valve release at the P26W well pad (Location). The Location is 8.7 miles south of Rifle, Colorado, in Garfield County, as illustrated in the attached Topographic Location Map. Additional information on the Location and associated release is provided in the title block above, attached Site Diagrams, and laboratory analytical report. This ROWC provides background on the Location, methods used to complete the investigation, results of the investigation, and recommendations for how to proceed with this information.

Background

On February 21, 2022, an unknown volume of comingled fluid was released into secondary containment due to a valve failure during transport truck offloading operations. The release was reported via Energy & Carbon Management Commission (ECMC) Form 19 Document 402963034 to open Spill/Release Point ID 481668. Form 27 Document 403056775 was later submitted to open Remediation Project 23856.

On June 20, 2024, Confluence was onsite to conduct an initial site investigation to determine if impacts from the release were present within the soil beneath the liner. Three potholes were advanced at an angle on the southeast corner of the tank battery containment to depths of 4 to 5 feet below ground surface (bgs). Hand tools were used to collect soil from the terminus of each pothole beneath the tank containment liner. One soil sample was collected from each pothole. Analytical results of the soil samples indicate compliance with Table 915-1 Residential Soil Screening Levels (RSSLs) except for total petroleum hydrocarbons (TPH), sodium adsorption ratio (SAR), pH, and arsenic.

On July 18, 2024, Form 27 Document 403850138 was submitted to present results of the initial site investigation to the ECMC, request comparison of analytical results to RSSLs, and to request a reduced analyte suite of TPH, SAR, pH, arsenic, and hexavalent chromium. The ECMC approved the form and associated requests on August 7, 2024.

Methodology

On October 17, 2024, Confluence returned to the Location to collect vertical delineation soil samples from beneath the tank containment liner. To facilitate sampling, an access point was cut into the liner, enabling the collection of soil samples using a hand auger. One surface soil sample was collected prior to advancing a single boring to a total depth of 9 feet bgs. One soil sample was collected from the terminus of the boring. Upon completion of sampling, the liner was repaired to ensure its integrity.

Soil samples were collected in laboratory provided jars, immediately placed on ice, shipped under a completed chain-of-custody form to Pace Analytical Services (Pace), and analyzed for the approved reduced analyte suite of TPH, SAR, pH, arsenic, and hexavalent chromium.

Results

These results summarize observations from onsite investigation efforts and associated laboratory analytical results. For organizational and presentation purposes, the results summary is divided between general observations of lithology and hydrogeology for the entire Location and site investigation activities. Collected spatial data are depicted in the attached Site Diagrams. The laboratory analytical report is attached and summarized in the Soil Analytical Results Table.

Lithology and Hydrogeology

The lithology at the Location is made up of clayey gravel and the National Resources Conservation Service (NRCS) soil classification is Morval Tridell complex. Groundwater is expected to flow east towards an intermittent tributary of Middle Mamm Creek and ultimately to the Colorado River, located 8.3 miles north of the Location. Precise measurements of groundwater depth at the Location do not exist, and there are no applicable groundwater wells or springs within the immediate area. However, the Location is at an approximate elevation of 7,040 feet above mean sea level (AMSL) while the nearest surface water is at approximately 6,760 feet AMSL, a difference of approximately 280 feet. Therefore, it can be assumed that depth to groundwater is greater than 100 feet bgs.

Vertical Delineation Results

Field screening of vertical delineation samples registered PID measurements of 266.9 and 426 parts per million (ppm). Analytical results of the soil samples indicate compliance with RSSLs except for SAR, pH, and arsenic. A SAR exceedance of 9.89 was observed in SB04 at 0.5 feet bgs and a pH exceedance of 8.79 was observed in SB04 at 9 feet bgs. Arsenic exceedances were observed in both samples at concentrations of 7.19 and 7.21 milligrams per kilogram (mg/kg).

Recommendations and Analysis

Confluence recommends the advancement of a minimum of three soil borings to complete horizontal delineation of organic impacts around SB03. Prior to further delineation of inorganic constituents of concern, Confluence recommends the collection of background soil samples to characterize native levels of inorganics at the Location. Confluence also recommends the collection of a produced water sample to profile inorganics in the released fluids.

Confluence is grateful for the opportunity to support you with this project. If you have any questions about the methods, results or recommendations presented here, please do not hesitate to contact us.

Regards,

Andrew Smith
Project Manager
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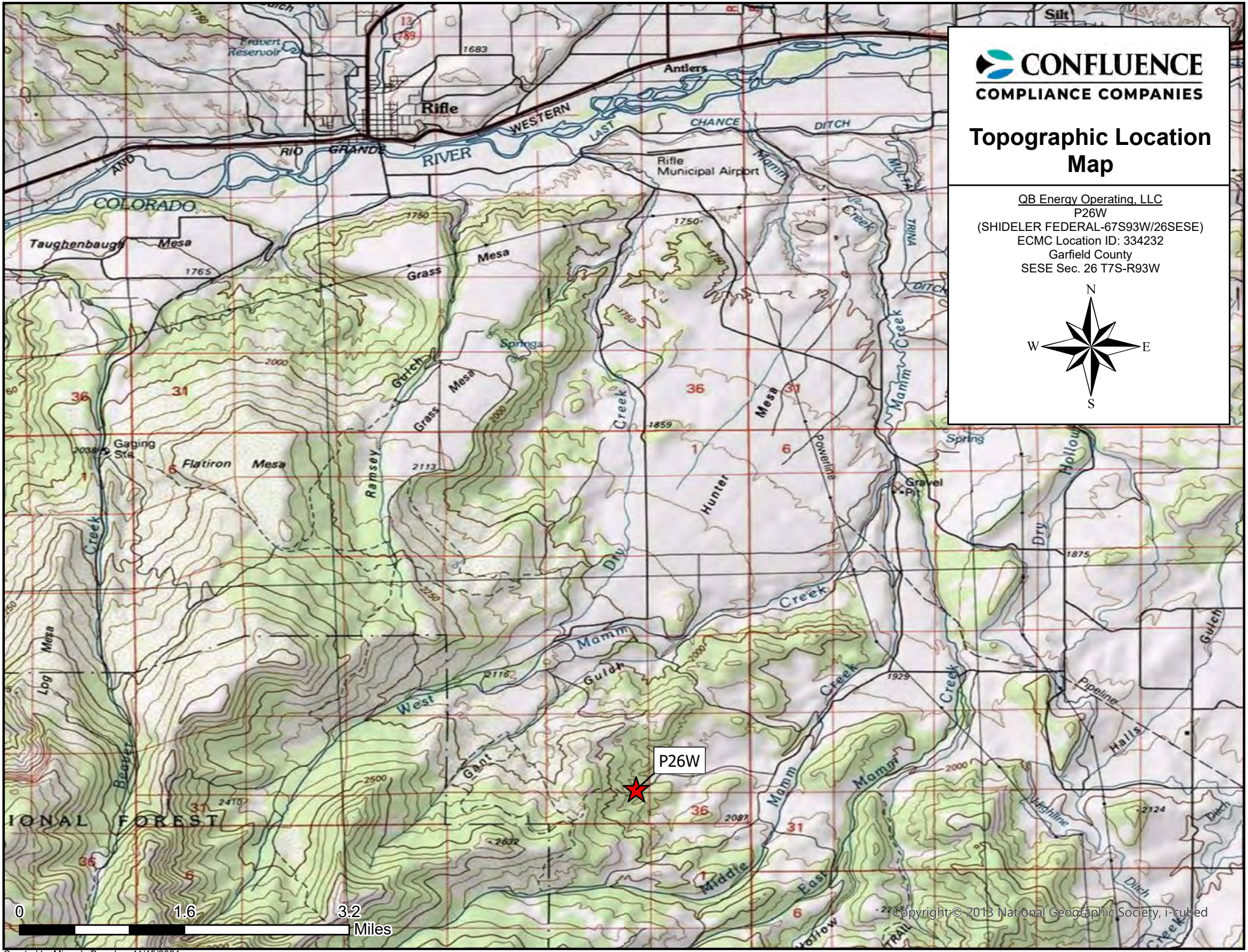
andy.smith@confluence-cc.com

John Axelson
Program Manager
(720) 233-2927
john.axelson@confluence-cc.com

Attachments

- Topographic Location Map
- Site Diagram – Site Investigation
- Site Diagram – Proposed Sampling
- Soil Analytical Results Table
- Photographic Log
- Laboratory Report



Created by Miranda Beard on 11/15/2024

Site Diagram: Site Investigation

QB Energy Operating, LLC
P26W
(SHIDELER FEDERAL-67S93W/26SESE)
ECMC Location ID: 334232
Garfield County
SESE Sec. 26 T7S-R93W

Soil Sample

0 12½ 25 50 Feet

Map Created by: Miranda Beard on 11/15/2024

N

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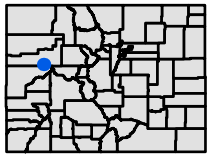


CONFLUENCE
COMPLIANCE COMPANIES

Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only.

Site Diagram: Proposed Sampling

QB Energy Operating, LLC
P26W
(SHIDELER FEDERAL-67S93W/26SESE)
ECMC Location ID: 334232
Garfield County
SESE Sec. 26 T7S-R93W

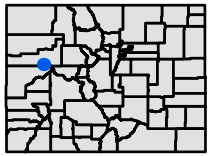
0 12½ 25 50 Feet

Map Created by: Miranda Beard on 11/15/2024

- Soil Sample
- Proposed Soil Boring

N

1:372



CONFLUENCE
COMPLIANCE COMPANIES

Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only.

SOIL ANALYTICAL RESULTS TABLE
P26W

Analyte				Total TPH	GRO	DRO	ORO	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 RESIDENTIAL SOIL				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
Sample Name	**Sample**	**Sample**	**Lab**																									
20240620-P26W-(SB01)@5	Soil Boring	06/20/2024	AA09282	244.4	109.46244	134.9	< 100	0.169	0.919	0.394	5.238	1.315	1.451	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01654	0.01679	< 0.01
20240620-P26W-(SB02)@5	Soil Boring	06/20/2024	AA09283	3.35076	3.35076	< 100	< 100	< 0.00242	0.526	0.214	2.875	0.641	0.707	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	0.07249	0.03107	< 0.01
20240620-P26W-(SB03)@4	Soil Boring	06/20/2024	AA09284	**606.4**	414.74176	191.7	< 100	0.01289	0.01591	1.002	17.229	3.368	3.689	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.04745	0.16965	0.06108	< 0.01
20241017-P26W-(SB04)@0.5	Soil Boring	10/17/2024	L1791888	181	1.39	76.5	103																					
20241017-P26W-(SB04)@9	Soil Boring	10/17/2024	L1791888	200	193	6.29	0.972																					

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

SOIL ANALYTICAL RESULTS TABLE
P26W

Analyte				EC	SAR	pH	HWS Boron	Arsenic	Barium	Cadmium	Chromium VI	Copper	Lead	Nickel	Selenium	Silver	Zinc
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 Type**	**Sample Date**	**Lab Report**														
20240620-P26W-(SB01)@5	Soil Boring	06/20/2024	AA09282	0.614	1.483	8.17	0.336	**2.046**	186.29	0.554	< 0.08	11.131	8.342	15.09	1.743	< 0.25	47.747
20240620-P26W-(SB02)@5	Soil Boring	06/20/2024	AA09283	0.835	**7.173**	**9.45**	0.405	**2.127**	149.562	0.418	< 0.08	9.969	7.841	17.174	1.758	< 0.25	44.616
20240620-P26W-(SB03)@4	Soil Boring	06/20/2024	AA09284	0.691	1.564	8	0.216	**2.495**	136.667	0.561	< 0.08	11.336	10.395	14.33	1.403	< 0.25	44.322
20241017-P26W-(SB04)@0.5	Soil Boring	10/17/2024	L1791888		**9.89**	8.11		**7.21**			**< 1.00**						
20241017-P26W-(SB04)@9	Soil Boring	10/17/2024	L1791888		3.31	**8.79**		**7.19**			**< 1.00**						

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

Photographic Log

Remediation Investigation
P26W (ECMC Location ID: 334232)

SB04 Location: View East

Photographic Log

Remediation Investigation
P26W (ECMC Location ID: 334232)

SB04 Location: View West

Photographic Log

Remediation Investigation
P26W (ECMC Location ID: 334232)

SB04 Sample Location: View East

ANALYTICAL REPORT

October 31, 2024

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

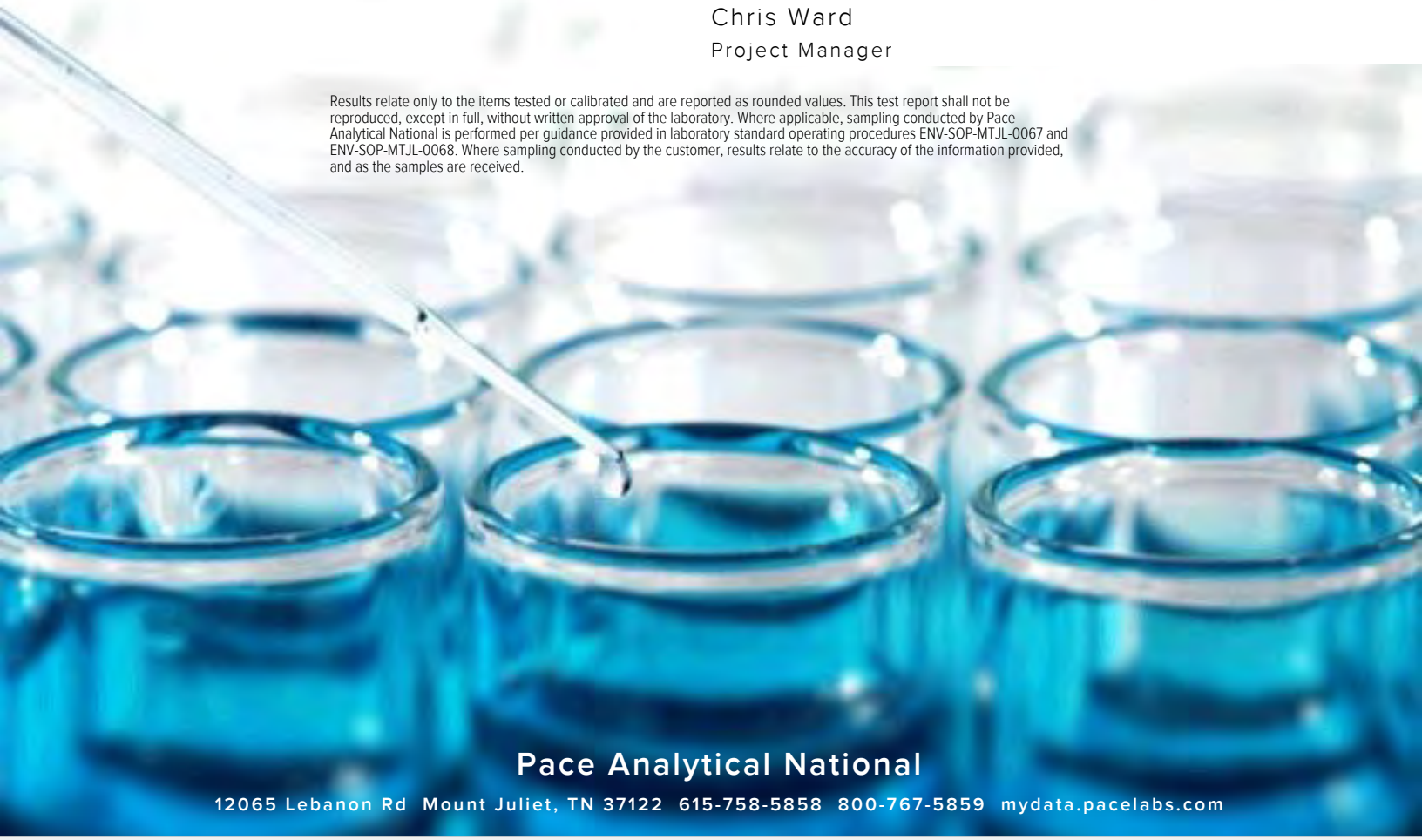
QB Energy

Sample Delivery Group:	L1791888
Samples Received:	10/23/2024
Project Number:	
Description:	P26W Tank Valve Failure
Site:	P26W
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 mydata.pacelabs.com

TABLE OF CONTENTS

SAMPLE SUMMARY

20241017-P26W-(SB04)@0.5 L1791888-01 Solid

Collected by: Olivia Floyd
Collected date/time: 10/17/24 10:45
Received date/time: 10/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2390496	1	10/30/24 20:16	10/30/24 20:16	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2389292	1	10/25/24 17:39	10/29/24 01:47	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2389286	1	10/25/24 08:15	10/25/24 12:00	BRT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2388925	5	10/29/24 08:14	10/29/24 19:39	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2390591	1	10/25/24 09:13	10/28/24 07:23	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2391955	1	10/30/24 11:15	10/31/24 01:13	SGB	Mt. Juliet, TN

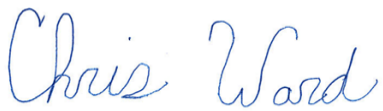
20241017-P26W-(SB04)@9 L1791888-02 Solid

Collected by: Olivia Floyd
Collected date/time: 10/17/24 12:00
Received date/time: 10/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2390496	1	10/30/24 20:19	10/30/24 20:19	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2389292	1	10/25/24 17:39	10/29/24 01:57	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2389286	1	10/25/24 08:15	10/25/24 12:00	BRT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2388925	5	10/29/24 08:14	10/29/24 19:43	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2391051	25	10/25/24 09:13	10/29/24 10:25	CDD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2391955	1	10/30/24 11:15	10/31/24 00:02	SGB	Mt. Juliet, TN

CASE NARRATIVE

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



Chris Ward
Project Manager

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	9.89		1	10/30/2024 20:16	WG2390496

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/29/2024 01:47	WG2389292

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	8.11	T8	1	10/25/2024 12:00	WG2389286

Sample Narrative:

L1791888-01 WG2389286: 8.11 at 20.4C

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.21		0.100	1.00	5	10/29/2024 19:39	WG2388925

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.39		0.0217	0.100	1	10/28/2024 07:23	WG2390591
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*77.0-120*		*10/28/2024 07:23*	WG2390591

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	76.5		1.61	4.00	1	10/31/2024 01:13	WG2391955
C28-C36 Motor Oil Range	103		0.274	4.00	1	10/31/2024 01:13	WG2391955
(S) o-Terphenyl	*54.4*			*18.0-148*		*10/31/2024 01:13*	WG2391955

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
	SAR				
Sodium Adsorption Ratio	3.31		1	10/30/2024 20:19	WG2390496

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/29/2024 01:57	WG2389292

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	8.79	T8	1	10/25/2024 12:00	WG2389286

Sample Narrative:

L1791888-02 WG2389286: 8.79 at 20.2C

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.19		0.100	1.00	5	10/29/2024 19:43	WG2388925

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	193		0.543	2.50	25	10/29/2024 10:25	WG2391051
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*77.0-120*		*10/29/2024 10:25*	WG2391051

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	6.29		1.61	4.00	1	10/31/2024 00:02	WG2391955
C28-C36 Motor Oil Range	0.972	J	0.274	4.00	1	10/31/2024 00:02	WG2391955
(S) o-Terphenyl	*46.7*			*18.0-148*		*10/31/2024 00:02*	WG2391955

Method Blank (MB)

(MB) R4138778-1 10/29/24 00:55

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

L1791877-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1791877-02 10/29/24 01:26 • (DUP) R4138778-3 10/29/24 01:36

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

L1792271-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1792271-04 10/29/24 05:59 • (DUP) R4138778-8 10/29/24 06:09

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

Laboratory Control Sample (LCS)

(LCS) R4138778-2 10/29/24 01:05

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	

L1792271-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792271-01 10/29/24 04:24 • (MS) R4138778-5 10/29/24 05:06 • (MSD) R4138778-6 10/29/24 05:17

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	U	1.65	1.22	8.23	6.09	1	75.0-125	J6	J3 J6	29.9	20

L1792271-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1792271-01 10/29/24 04:24 • (MS) R4138778-7 10/29/24 05:27

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	631	U	412	65.3	50	75.0-125	J6

L1791888-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1791888-01 10/25/24 12:00 • (DUP) R4137643-2 10/25/24 12:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	pH	su		%		%
pH	8.11	8.12	1	0.123		1

Sample Narrative:

OS: 8.11 at 20.4C

DUP: 8.12 at 20.4C

L1792157-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792157-01 10/25/24 12:00 • (DUP) R4137643-3 10/25/24 12:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.94	5.95	1	0.168		1

Sample Narrative:

OS: 5.94 at 22.2C

DUP: 5.95 at 22C

Laboratory Control Sample (LCS)

(LCS) R4137643-1 10/25/24 12:00

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 19.8C

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

QUALITY CONTROL SUMMARY

L1791888-01,02

Method Blank (MB)

(MB) R4139318-1 10/29/24 18:11

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00

Laboratory Control Sample (LCS)

(LCS) R4139318-2 10/29/24 18:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	101	101	80.0-120	

L1791866-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1791866-03 10/29/24 18:18 • (MS) R4139318-5 10/29/24 18:28 • (MSD) R4139318-6 10/29/24 18:32

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 %
Arsenic	100	4.08	109	102	105	98.4	5	75.0-125			6.03	20

Method Blank (MB)

(MB) R4139602-3 10/27/24 21:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*

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

(LCS) R4139602-1 10/27/24 20:25 • (LCSD) R4139602-2 10/27/24 20:49

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	5.65	4.98	113	99.6	72.0-127			12.6	20
(S) a,a,a-Trifluorotoluene(FID)				*104*	*104*	*77.0-120*				

Method Blank (MB)

(MB) R4139508-3 10/29/24 03:33

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)	*101*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R4139508-2 10/29/24 02:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	4.15	83.0	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*77.0-120*	

Method Blank (MB)

(MB) R4139952-1 10/30/24 23:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	*64.4*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4139952-2 10/30/24 23:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	38.6	77.2	50.0-150	
(S) o-Terphenyl			*70.7*	*18.0-148*	

L1791922-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1791922-04 10/31/24 02:51 • (MS) R4139952-3 10/31/24 03:05 • (MSD) R4139952-4 10/31/24 03:19

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	48.2	1470	883	846	0.000	0.000	10	50.0-150	V	V	4.28	20
(S) o-Terphenyl					*154*	*142*		*18.0-148*	J1			

Sample Narrative:

OS: Dilution and surrogate failure due to matrix interference.

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	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.

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

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

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-In Number Here

ALL BOLD OUTLINED AREAS are for LAB USE ONLY

K236

Company: Caerus Oil and Gas LLC	Billing Information: Info on file
Address: Info on file	
Report To: Brett Middleton, Blair Rollins, Andy Verbonitz, Jake Janicek	Email To: Info on file
Copy To: N/A	Site Collection Info/Address: N/A
Customer Project Name/Number: P26W Tank Valve Failure	State: CO / County/City: Garfield / Time Zone Collected: [ ]PT [X]MT [ ]CT [ ]ET
Phone: 303-870-8828 Email: olivia.floyd@confluence-cc.com	Site/Facility ID #: P26W / Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Olivia Floyd	Purchase Order # : N/A Quote #: N/A / DW PWS ID #: N/A DW Location Code: N/A
Collected By (signature): Olivia Floyd	Turnaround Date Required: **Standard Turnaround** / Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: (Expedite Charges Apply) [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] **5 Day** / Field Filtered (if applicable): N/A [ ] Yes [ ] No Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Container Type: Plastic (P) or Glass (G)	TPH (ORO, GRO, DRO)	pH, SAR	Arsenic	Cr6IC
20241017-P26W-(SB04)@0.5	SL	G	10/17/2024	1045				4	G	X	X	X	X
20241017-P26W-(SB04)@9	SL	G	10/17/2024	1200				4	G	X	X	X	X

Container Preservative Type **

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Lab Project Manager:

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signature Present Y N NA
Bottles Intact Y N NA
Correct Bottles Y N NA
Sufficient Volume Y N NA
Samples Received on Ice Y N NA
VOA - Headspace Acceptable Y N NA
USDA Regulated Soils Y N NA
Samples in Holding Time Y N NA
Residual Chlorine Present Y N NA
Cl Strips: _____
Sample pH Acceptable Y N NA
pH Strips: _____
Sulfide Present Y N NA
Lead Acetate Strips: _____

LAB USE ONLY:
Lab Sample # / Comments:
L1791888
-01
-02

Sample Receipt Checklist

		If Applicable	
COC Seal Present/Intact:	Y N		
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours) : Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: __oC
Cooler 1 Therm Corr. Factor: __oC
Cooler 1 Corrected Temp: _____oC
Comments:

Relinquished By / Company: Olivia Floyd	Date / Time: 10/21/24 1130	Received By / Company:	Date/Time:	MTJL LAB USE ONLY Table #:
Relinquished By / Company: (Signature)	Date / Time: 10/23/24 1600	Received By / Company: (Signature)	Date/Time:	Acctnum: Template: Prelogin:
Relinquished By / Company: (Signature)	Date / Time:	Received By / Company: (Signature)	Date/Time: 10/23/24 0900	PM: PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

LT91888

Fed Ex tracking #	Gun ID	Temperature
7315 3202 6578	M5A9	0.6+0.3=0.9
7315 3202 6589	↓	4.8+0.3=5.1

Name

Date