September 25, 2024
Kleinfelder Project No. 24005494.001A

Mr. Andrew Verbonitz
Caerus Piceance, LLC
1001 17th Street #1600
Denver, Colorado 80202

SUBJECT: **Site Investigation Report**
Caerus Piceance, LLC
Remediation Project Number: 29978
Divide Creek Compressor Station
Garfield County, Colorado

Dear Mr. Verbonitz:

Kleinfelder Inc. (Kleinfelder) performed soil sampling activities at the Divide Creek Compressor Station blowdown tank located in Garfield County, Colorado under contract by Caerus Piceance, LLC (Caerus). QB Energy Operating, LLC acquired the Caerus assets within the Piceance Basin on August 16, 2024. Enclosed is the report of work complete for this effort.

Please do not hesitate to contact me at (970) 309-6553 or by email at JVeith@kleinfelder.com should you have questions or concerns.

Respectfully submitted,
KLEINFELDER, INC.

Jordan Veith

Jordan Veith
Project Manager I

KLEINFELDER 707 17th Street, Suite 3000, Denver, CO 80202 p | 303.237.6601 f | 303.237.6602

SITE INVESTIGATION REPORT
CAERUS PICEANCE, LLC
REMEDIATION PROJECT NUMBER: 29978
DIVIDE CREEK COMPRESSOR STATION
GARFIELD COUNTY, COLORADO

KLEINFELDER PROJECT NO. 24005494.001A

September 25, 2024

A Report Prepared for:

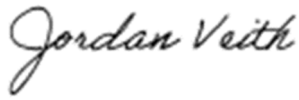
Caerus Piceance, LLC
1001 17th Street #1600
Denver, CO 80202

SITE INVESTIGATION REPORT
CAERUS PICEANCE, LLC
REMEDIATION PROJECT NUMBER: 29978
DIVIDE CREEK COMPRESSOR STATION
GARFIELD COUNTY, COLORADO

Prepared by:

Trevor Lakin
Environmental Scientist/Professional I

Reviewed by:



Jordan Veith
Project Manager I

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September 25, 2024
Kleinfelder Project No. 24005494.001A

Contents

KLEINFELDER 707 17th Street, Suite 3000, Denver, CO 80202 p | 303.237.6601 f | 303.237.6602

SITE INVESTIGATION REPORT

CAERUS PICEANCE, LLC

REMEDIATION PROJECT NUMBER: 29978

DIVIDE CREEK COMPRESSOR STATION

GARFIELD COUNTY, COLORADO

1 INTRODUCTION

This document was prepared by Kleinfelder Inc. (Kleinfelder) on behalf of Caerus Piceance, LLC (Caerus) to provide documentation of recent sampling support services conducted for the blowdown tank release located at the Divide Creek Compressor Station located in Garfield County, Colorado (**Figure 1**). QB Energy Operating, LLC acquired the Caerus Piceance, LLC assets within the Piceance Basin on August 16, 2024.

Kleinfelder has been contracted by Caerus to perform soil sampling support services to provide necessary information to complete the Colorado Energy and Carbon Management Commission (ECMC) Form 27 for their upstream oil and gas production facilities located in the Piceance Basin. According to the ECMC Form 19 Spill / Release Report Approved (document # 403291201) provided to Kleinfelder by Caerus, during tank maintenance operations, historic staining was identified within the lined secondary containment. Caerus proposed soil sampling to characterize the approximate release area from the reported spill under ECMC 913.c.(3): Remediation of Spill and Release pursuant to Rule 912. Please refer to approved Form 27 Site Investigation and Remediation Workplans (document #403360853, 403572449, 403642863, 403828387, and 403828433) for a summary of site investigation activities. Kleinfelder collected additional soil samples as part of this site investigation on November 13, 2023 and September 5, 2024. Samples were analyzed by Pace Analytical National Laboratory (Pace) and results are reported herein.

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2 SITE LOCATION AND GEOLOGIC SETTING

The Divide Creek Compressor Station is located within the Piceance Basin in Garfield County, northwestern Colorado (SWNE, Section 1, Township 8 South, Range 92 West) (**Figure 1**). The Piceance Basin is a geologic structural basin consisting of sandstones and siltstones, containing reserves of coal, natural gas, and oil shale.

No surface water or groundwater were encountered during Kleinfelder's soil sampling activities. The general soil type within the release area was classified based on Kleinfelder's field observations using the Unified Soil Classification System (USCS) and were observed as clayey sands, sand-clay mixtures. Topographical information is provided in **Figure 1**.

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3 FIELD ACTIVITIES

As prescribed within the approved ECMC Form 27 Site Investigation and Remediation Workplans, Kleinfelder performed the following field activities at the Divide Creek Compressor Station on November 13, 2023, and September 5, 2024:

November 13, 2023

- Collected one (1) point of release soil sample from the approximate spill area [20231113-Divide Creek TB-(POR)@5] at 5 feet below ground surface (bgs); and
- Shipped soil sample to Pace to analyze for ECMC Table 915-1 pH analyte only.

September 5, 2024

- Collected one (1) grab soil sample from the base of the excavation [20240905-Divide Creek TB-(BASE01)@6] at 6 feet bgs;
- Collected four (4) grab soil samples from the walls of the excavation north [20240905-Divide Creek TB-(NW01)@6], east [20240905-Divide Creek TB-(EW01)@6], south [20240905-Divide Creek TB-(SW01)@6], and west [20240905-Divide Creek TB-(WW01)@6], at 6 feet bgs;
- Collected one (1) 5-point composite soil sample from the existing soil stockpile [20240905-Divide Creek TB-(STOCK01)];
- Collected one (1) 5-point composite soil sample from the newly created soil stockpile [20240905-Divide Creek TB-(STOCK02)]; and
- Shipped soil samples to Pace to analyze for ECMC Table 915-1 pH analyte only.

Prior to Kleinfelder's soil screening and sampling activities on November 13, 2023, and September 5, 2024, Caerus identified all sample locations. On November 13, 2023, Caerus had indicated the need to collect one additional sample from the point of release (POR) area. WCO Oilfield Services (WCO) was on-site with a hydrovac to complete potholes around the tank battery. However, upon arrival, WCO had equipment malfunction and hydrovac potholes could not be attempted. Kleinfelder successfully collected a soil sample from the POR area by use of hand auger at 5 feet bgs. On September 5, 2024, WCO was directed by Caerus to excavate down approximately 6 vertical feet directly beneath the former tank. Kleinfelder then collected one (1) soil sample from the base and four walls of the excavation area at 6 feet bgs.

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Kleinfelder used an EOS Arrow 100 Submeter Global Navigation System Receiver (GNSS) to record latitude and longitude at each sample location. Previous sample locations and sample locations discussed within the report are shown on **Figure 2**. Previously collected background sample locations are depicted on **Figure 3**.

Soil samples were collected from a stainless-steel hand auger or a stainless-steel hand trowel and placed into laboratory-supplied, 9-ounce jars with Teflon lids per sample. Each sample was collected directly from the hand auger or trowel from the appropriate depth and placed into the glass jars. The samples were immediately placed on ice in a cooler. Standard chain-of-custody (COC) procedures were used during sampling and transportation to Pace in Mount Juliet, Tennessee (via FEDEX). Site soil samples were analyzed for ECMC Table 915-1 pH analyte only as approved in Supplemental Form 27 (document #403572449).

Sampling equipment (i.e., hand auger cutter head, soil sampler, etc.) was washed with a solution of Liquinox® detergent, rinsed with tap water, and then distilled water between samples. During soil sampling activities, Kleinfelder documented staining and/or odor observations, if any, and screened the soil with a PID. Kleinfelder placed the soil into a Ziploc® plastic bag directly from the hand auger for screening with the PID. The PID is a MiniRAE 3000®, which is owned and maintained by Caerus. Prior to use, Kleinfelder calibrated the PID, which passed calibration.

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4 RESULTS

Kleinfelder observed soil conditions within the POR area and subsequent excavation area during the soil sampling activities. Hydrocarbon odors and soil staining were not observed at the sample locations. PID readings were all below 4 parts per million from the sample locations. **Table 1** summarizes the samples and associated field observations.

Excluding arsenic and pH, the comprehensive sample analytical results from all site investigation activities at the location did not exceed the ECMC Table 915-1 Residential Soil Screening Levels (RSSLs) (see **Table 2** and **Table 3**).

- Arsenic was detected at concentrations above the ECMC Table 915-1 RSSLs at soil samples 20230719-DIVIDE CREEK TB-(POR)@2 and 20230816-DIVIDECREEKTB-(POR)@3.
- pH was detected at a concentration above the ECMC Table 915-1 and site-specific background concentrations at soil samples 20230719-DIVIDE CREEK TB-(POR)@2, 20230816-DIVIDECREEKTB-(POR)@3, and 20240905-DIVIDE CREEK TB-(STOCK01).

Analytical results are summarized in **Table 2** and **Table 3** and were compared to ECMC Table 915-1 RSSLs as approved in Supplemental Form 27 (document #403572449). Site-specific laboratory analytical reports are provided in **Appendix A**. Sample locations are provided in **Figure 2** and **Figure 3.**

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5 CONCLUSIONS AND RECOMMENDATIONS

Hydrocarbon odors and soil staining were not observed at the sample locations and PID readings were all below 4 PPM (**Table 1**). Excluding arsenic and pH, the comprehensive sample analytical results from all site investigation activities at the location did not exceed the ECMC Table 915-1 Residential Soil Screening Levels (RSSLs) (see **Table 2** and **Table 3**).

Arsenic was detected at concentrations above the ECMC Table 915-1 RSSLs at soil samples 20230719-DIVIDE CREEK TB-(POR)@2 and 20230816-DIVIDECREEKTB-(POR)@3; however, both sample results for arsenic were below the site-specific background concentrations for arsenic (1.51 – 4.07 mg/kg).

pH exceedances previously identified in soil samples 20230719-DIVIDE CREEK TB-(POR)@2 and 20230816-DIVIDECREEKTB-(POR)@3 have since been excavated and stockpiled on the location and is characterized by soil sample 20240905-DIVIDE CREEK TB-(STOCK01). Kleinfelder recommends Caerus properly haul and dispose of the soil within the stockpile associated with soil sample 20240905-DIVIDE CREEK TB-(STOCK01) at a licensed disposal facility. Analytical results for the subsequent soil stockpile characterized by soil sample 20240905-DIVIDE CREEK TB-(STOCK02) is within ECMC Table 915-1 pH concentrations and is suitable for backfill of the excavation.

Based on all investigative results, all constituents of concern are compliant with ECMC Table 915-1 RSSLs or background concentration levels. Kleinfelder recommends Caerus request No Further Action (NFA) associated with the site investigation under ECMC Remediation Project Number 29978.

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6 LIMITATIONS

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. It should be recognized that definition and evaluation of geologic and environmental conditions are a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present due to the limitations of data from field studies. Although risk can never be eliminated, more detailed and extensive studies yield more information, which may help understand and manage the level of risk. Since detailed study and analysis involves greater expense, our clients participate in determining levels of service that provide adequate information for their purposes at acceptable levels of risk. More extensive studies, including subsurface studies or field tests, should be performed to reduce uncertainties. Acceptance of this report will indicate that Caerus has reviewed the document and determined that it does not need or want a greater level of service than provided.

During the course of the performance of Kleinfelder's services, hazardous materials may have been discovered. Kleinfelder assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, or generator, or person who arranges for disposal, transport, storage, or treatment of hazardous materials within the meaning of any governmental statute, regulation, or order. Caerus is solely responsible for directing notification of all governmental agencies, and the public at large, of the existence, release, treatment, or disposal of any hazardous materials observed at the project site, either before or during performance of Kleinfelder's services. Caerus is responsible for directing all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

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FIGURES

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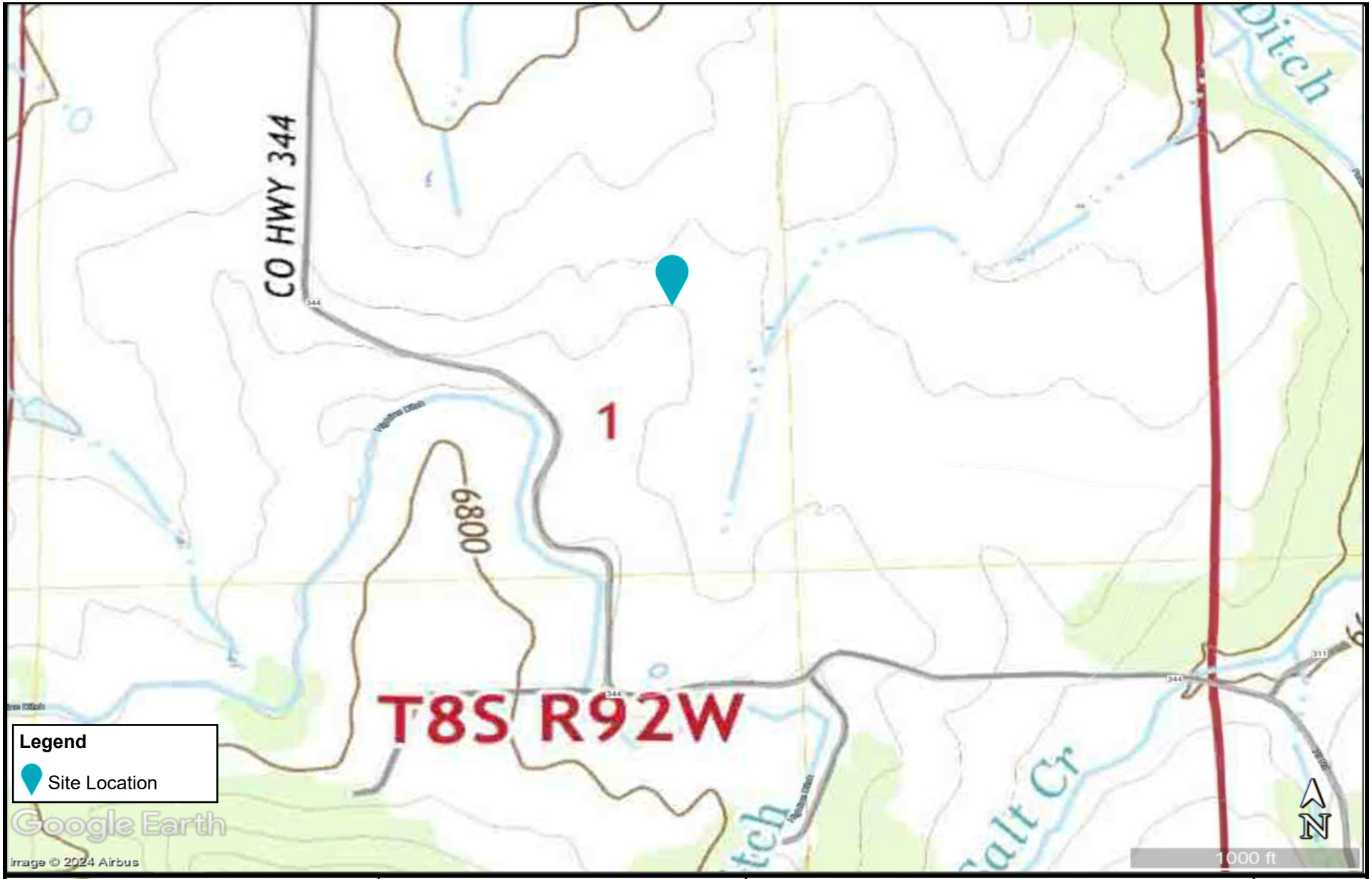

KLEINFELDER
Bright People. Right Solutions.
www.kleinfelder.com

PROJECT NO.	24005494.001A
DRAWN:	9/24/2024
DRAWN BY:	T. Lakin
CHECKED BY:	J. Veith
FILE NAME:	Divide Creek CS Topographical Map.pub

Topographical Map

Caerus Piceance, LLC
Remediation Project Number: 29978
Divide Creek Compressor Station
SWNE Sec. 1 T8S R92W
Garfield County, Colorado

FIGURE

1

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PROJECT NO.	24005494.001A
DRAWN:	9/24/2024
DRAWN BY:	T. Lakin
CHECKED BY:	J. Veith
FILE NAME:	Divide Creek CS Sample Locations.pub

Sample Location Map

Caerus Piceance, LLC
Remediation Project Number: 29978
Divide Creek Compressor Station
SWNE Sec. 1 T8S R92W
Garfield County, Colorado

FIGURE

2

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PROJECT NO.	24005494.001A
DRAWN:	9/25/2024
DRAWN BY:	T. Lakin
CHECKED BY:	J. Veith
FILE NAME:	Divide Creek CS Sample Locations.pub

Background Sample Location Map

Caerus Piceance, LLC
Remediation Project Number: 29978
Divide Creek Compressor Station
SWNE Sec. 1 T8S R92W
Garfield County, Colorado

FIGURE

3

TABLES

KLEINFELDER 707 17th Street, Suite 3000, Denver, CO 80202 p | 303.237.6601 f | 303.237.6602

TABLE 1 - SAMPLE SUMMARY
CAERUS PICEANCE, LLC
REMEDIATION PROJECT NUMBER: 29978
DIVIDE CREEK COMPRESSOR STATION
SWNE SEC. 1 T8S R92W
GARFIELD COUNTY, COLORADO

Sample ID	Sample Type	Sample Date	Latitude	Longitude	PID Reading (PPM)	Hydrocarbon Odor Detected (Y/N)	Soil Staining Observed (Y/N)	Submitted for Laboratory Analysis (Y/N)	Comments
20230719-DCUBG-(DIVIDE CREEK TB-W)@1	Background	7/19/2023	39.390266	-107.616309	N/A	N/A	N/A	Y	None
20230719-Divide Creek TB-(POR)@2	Soil	7/19/2023	39.390106	-107.614310	3.1	N	N	Y	None
20230719-Divide Creek TB-(POR-EW)@2	Soil	7/19/2023	39.390123	-107.614255	1.2	N	N	N	None
20230719-Divide Creek TB-(POR-NW)@2	Soil	7/19/2023	39.390164	-107.614339	< 1	N	N	N	None
20230719-Divide Creek TB-(POR-SW)@2	Soil	7/19/2023	39.390038	-107.614263	< 1	N	N	N	None
20230719-Divide Creek TB-(POR-WW)@2	Soil	7/19/2023	39.390089	-107.614369	< 1	N	N	N	None
20230816-DCUBG-(DIVIDE CREEK TB-W)@3	Background	8/16/2023	39.390266	-107.616309	N/A	N/A	N/A	Y	None
20230816-DCUBG-(DIVIDE CREEK TB-N)@3	Background	8/16/2023	39.390940	-107.614618	< 1	N/A	N/A	Y	None
20230816-DCUBG-(DIVIDE CREEK TB-E)@3	Background	8/16/2023	39.390519	-107.613938	< 1	N/A	N/A	Y	None
20230816-Divide Creek TB-(POR)@3	Soil	8/16/2023	39.390106	-107.614310	< 1	N	N	Y	None
20231113-Divide Creek TB-(POR)@5	Soil	11/13/2023	39.390106	-107.614310	< 1	N	N	Y	None
20240905-Divide Creek TB-(BASE01)@6	Soil	9/5/2024	39.390100	-107.614300	< 1	N	N	Y	None
20240905-Divide Creek TB-(NW01)@6	Soil	9/5/2024	39.390160	-107.614340	< 1	N	N	Y	
20240905-Divide Creek TB-(EW01)@6	Soil	9/5/2024	39.390120	-107.614240	< 1	N	N	Y	None
20240905-Divide Creek TB-(WW01)@6	Soil	9/5/2024	39.390090	-107.614370	< 1	N	N	Y	None
20240905-Divide Creek TB-(SW01)@6	Soil	9/5/2024	39.390040	-107.614270	< 1	N	N	Y	None
20240905-Divide Creek TB-(STOCK01)	Soil	9/5/2024	39.390050	-107.614420	< 1	N	N	Y	Existing stockpile
20240905-Divide Creek TB-(STOCK02)	Soil	9/5/2024	39.389980	-107.614230	< 1	N	N	Y	Stockpile created from 9/5/24 excavation

Notes:
PID = Photo-ionization Detector
PPM = Parts per million

TABLE 2 - SOIL ANALYTICAL RESULTS - INORGANIC ANALYTES
CAERUS PICEANCE, LLC
REMEDIATION PROJECT NUMBER: 29978
DIVIDE CREEK COMPRESSOR STATION
SWNE SEC. 1 T8S R92W
GARFIELD COUNTY, COLORADO

			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**														
20230719-DCUBG-(DIVIDE CREEK TB-W)@1	Background	7/19/2023	L1637303	0.0313	0.146	6.88 T8	0.321	**3.30**	151	0.170 J	< 0.255	8.13	8.85	10.3	0.441 J	< 0.0865	38.3
20230816-DCUBG-(DIVIDE CREEK TB-N) @3	Background	8/16/2023	L1646994	0.104	0.169	8.04 T8	0.207	**2.01**	165	0.224 J	< 0.255	6.72	7.42	11.6	0.258 J	< 0.0865	39.5
20230816-DCUBG-(DIVIDE CREEK TB-E) @3	Background	8/16/2023	L1646994	0.225	0.196	8.02 T8	0.182 J	**1.51**	172	0.163 J	< 0.255	6.18	6.33	8.57	0.271 J	< 0.0865	30.7
20230816-DCUBG-(DIVIDE CREEK TB-W)3	Background	8/16/2023	L1646994	0.235	0.131	7.83 T8	0.260	**4.07 O1**	239 O1	0.243 J	< 0.255	10.2	13.4 O1	14.5 O1	0.463 J	< 0.0865	55.1 O1
20230719-DIVIDE CREEK TB-(POR)@2	POR	07/19/2023	L1637305	0.19	3.27	**9.37**	0.164	**1.15**	128	0.163	**< 1.00**	5.12	5.32	7.01	0.246	< 0.500	30.3
20230816-DIVIDECREEKTB-(POR)@3	POR	08/16/2023	L1647013	0.239	1.91	**8.90**	0.0819	**1.37**	165	0.234	**< 1.00**	5.78	5.63	7.52	0.246	< 0.500	30.5
20231113-DIVIDECREEKTB-(POR)@5	POR	11/13/2023	L1677783			8.15											
20240905-DIVIDE CREEK TB-(BASE01)@6	Excavation	09/05/2024	L1774786			8.14											
20240905-DIVIDE CREEK TB-(EW01)@6	Excavation	09/05/2024	L1774786			8.09											
20240905-DIVIDE CREEK TB-(NW01)@6	Excavation	09/05/2024	L1774786			8.05											
20240905-DIVIDE CREEK TB-(STOCK01)	Excavation	09/05/2024	L1774786			**8.53**											
20240905-DIVIDE CREEK TB-(STOCK02)	Excavation	09/05/2024	L1774786			8.13											
20240905-DIVIDE CREEK TB-(SW01)@6	Excavation	09/05/2024	L1774786			8.12											
20240905-DIVIDE CREEK TB-(WW01)@6	Excavation	09/05/2024	L1774786			8.21											

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

TABLE 3 - SOIL ANALYTICAL RESULTS - ORGANIC ANALYTES
CAERUS PICEANCE, LLC
REMEDIATION PROJECT NUMBER: 29978
DIVIDE CREEK COMPRESSOR STATION
SWNE SEC. 1 T8S R92W
GARFIELD COUNTY, COLORADO

Analyte				TPH (Sum GRO, DRO, ORO)	GRO	DRO	ORO	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,2,4-TMB	1,3,5-TMB	Acenaphthene	Anthracene	Benz(a)anthracene
915-1 RESIDENTIAL SOIL				500				1.2	490	5.8	58	30	27	360	1800	1.1
Units				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**													
20230719-DIVIDE CREEK TB-(POR)@2	POR	07/19/2023	L1637305	46.46	0.360	17.0	29.1	< 0.00100	< 0.00500	< 0.00250	< 0.00650	< 0.00500	< 0.00500	< 0.00600	< 0.00600	< 0.00600
20230816-DIVIDE CREEK TB-(POR)@3	POR	08/16/2023	L1647013	5.5303	0.0903	< 4.00	1.44	< 0.00100	< 0.00500	< 0.00250	0.00113	< 0.00500	< 0.00500	< 0.00600	< 0.00600	< 0.00600

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

TABLE 3 - SOIL ANALYTICAL RESULTS - ORGANIC ANALYTES
CAERUS PICEANCE, LLC
REMEDIATION PROJECT NUMBER: 29978
DIVIDE CREEK COMPRESSOR STATION
SWNE SEC. 1 T8S R92W
GARFIELD COUNTY, COLORADO

			Analyte	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	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
Sample Name	**Sample Type**	**Sample Date**	**Lab Report**												
20230719-DIVIDE CREEK TB-(POR)@2	POR	07/19/2023	L1637305	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	0.00593	< 0.00600	0.00470	< 0.0200	< 0.0200	< 0.00600
20230816-DIVIDE CREEK TB-(POR)@3	POR	08/16/2023	L1647013	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.0200	< 0.0200	< 0.0200	< 0.00600

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

APPENDIX A

LABORATORY ANALYTICAL RESULTS

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ANALYTICAL REPORT

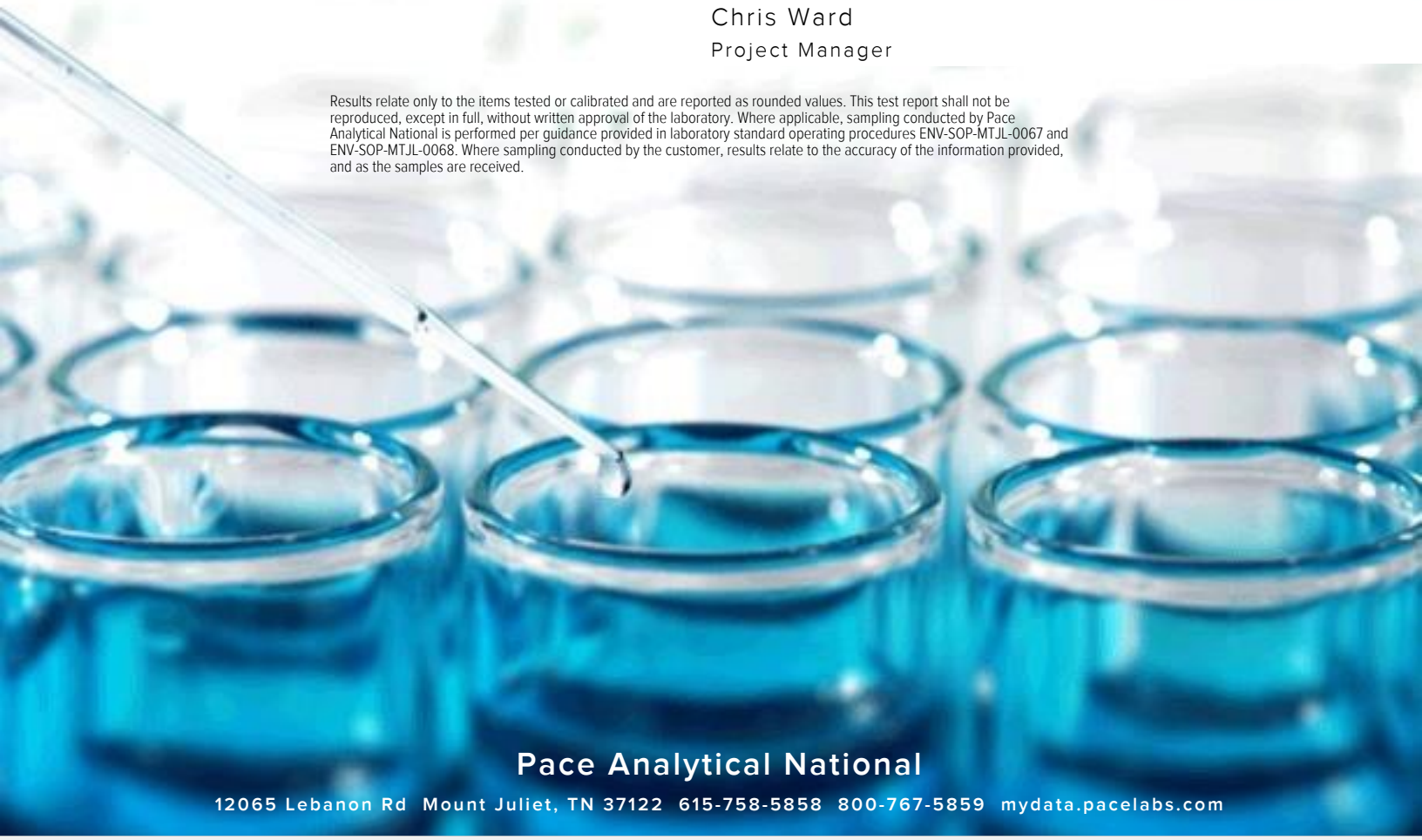
September 16, 2024

Caerus Oil and Gas

Sample Delivery Group:	L1774786
Samples Received:	09/06/2024
Project Number:	
Description:	Divide Creek TB Investigation
Site:	DIVIDE CREEK TB
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



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

TABLE OF CONTENTS

SAMPLE SUMMARY

20240905-DIVIDE CREEK TB-(STOCK01) L1774786-01 Solid

Collected by: Trevor Lakin | Collected date/time: 09/05/24 08:43 | Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2361886	1	09/13/24 19:48	09/14/24 16:15	KRB	Mt. Juliet, TN

20240905-DIVIDE CREEK TB-(BASE01)@6 L1774786-02 Solid

Collected by: Trevor Lakin | Collected date/time: 09/05/24 10:04 | Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2361886	1	09/13/24 19:48	09/14/24 16:15	KRB	Mt. Juliet, TN

20240905-DIVIDE CREEK TB-(NW01)@6 L1774786-03 Solid

Collected by: Trevor Lakin | Collected date/time: 09/05/24 10:09 | Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2361886	1	09/13/24 19:48	09/14/24 16:15	KRB	Mt. Juliet, TN

20240905-DIVIDE CREEK TB-(EW01)@6 L1774786-04 Solid

Collected by: Trevor Lakin | Collected date/time: 09/05/24 10:13 | Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2361886	1	09/13/24 19:48	09/14/24 16:15	KRB	Mt. Juliet, TN

20240905-DIVIDE CREEK TB-(WW01)@6 L1774786-05 Solid

Collected by: Trevor Lakin | Collected date/time: 09/05/24 10:18 | Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2361886	1	09/13/24 19:48	09/14/24 16:15	KRB	Mt. Juliet, TN

20240905-DIVIDE CREEK TB-(SW01)@6 L1774786-06 Solid

Collected by: Trevor Lakin | Collected date/time: 09/05/24 10:23 | Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2361886	1	09/13/24 19:48	09/14/24 16:15	KRB	Mt. Juliet, TN

20240905-DIVIDE CREEK TB-(STOCK02) L1774786-07 Solid

Collected by: Trevor Lakin | Collected date/time: 09/05/24 10:34 | Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2361886	1	09/13/24 19:48	09/14/24 16:15	KRB	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

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	pH			date / time	
pH	8.53	T8	1	09/14/2024 16:15	WG2361886

Sample Narrative:

L1774786-01 WG2361886: 8.53 at 21.8C

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	pH			date / time	
pH	8.14	T8	1	09/14/2024 16:15	WG2361886

Sample Narrative:

L1774786-02 WG2361886: 8.14 at 21.9C

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	pH			date / time	
pH	8.05	T8	1	09/14/2024 16:15	WG2361886

Sample Narrative:

L1774786-03 WG2361886: 8.05 at 21.7C

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	pH			date / time	
pH	8.09	T8	1	09/14/2024 16:15	WG2361886

Sample Narrative:

L1774786-04 WG2361886: 8.09 at 21.5C

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.21	T8	1	09/14/2024 16:15	WG2361886

Sample Narrative:

L1774786-05 WG2361886: 8.21 at 21.4C

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	pH			date / time	
pH	8.12	T8	1	09/14/2024 16:15	WG2361886

Sample Narrative:

L1774786-06 WG2361886: 8.12 at 21.6C

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.13	T8	1	09/14/2024 16:15	WG2361886

Sample Narrative:

L1774786-07 WG2361886: 8.13 at 21.3C

L1774432-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1774432-01 09/14/24 16:15 • (DUP) R4119897-2 09/14/24 16:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.56	7.52	1	0.531		1

Sample Narrative:

OS: 7.56 at 22.2C

DUP: 7.52 at 22C

L1775128-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1775128-07 09/14/24 16:15 • (DUP) R4119897-3 09/14/24 16:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.58	7.59	1	0.132		1

Sample Narrative:

OS: 7.58 at 21.8C

DUP: 7.59 at 21.8C

Laboratory Control Sample (LCS)

(LCS) R4119897-1 09/14/24 16:15

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: 10.01 at 21.9C

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

Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
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.

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.

Caerus Oil and Gas
143 Diamond Avenue
Parachute, CO 81635

Billing Information: SAME AS LEFT

Report to: Andy Verbonitz

Email To: averbonitz@caerusoilandgas.com

Project Description: Divide Creek TB Investigation

City/State Collected: Piceance Crk, CO

Please Circle: PT MT CT ET

Phone: (970) 902-3598

Client Project #: –

Lab Project #: –

Collected by (print): Trevor Lakin

Site/Facility ID #: Divide Creek TB

P.O. #: –

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

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

Quote #: –

Date Results Needed: Standard TAT

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	COGCC Table 915-1	EC, pH, SAR	Arsenic, Boron	COGCC Table 910-1	pH						Remarks	Sample # (lab only)
20240905-Divide Creek TB-(STOCK@1)	Comp	SS	–	9/5/24	8:43	2					X							01
20240905-Divide Creek TB-(POR)@6	Grab		6ft		10:04	2					X							02
20240905-Divide Creek TB-(POR-NW@2)@6					10:09	2					X							03
20240905-Divide Creek TB-(POR-EW@2)@6					10:13	2					X							04
20240905-Divide Creek TB-(POR-WW@2)@6					10:18	2					X							05
20240905-Divide Creek TB-(POR-SW@2)@6					10:23	2					X							06
20240905-Divide Creek TB-(STOCK@2)	Comp		–		10:34	2					X							07

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

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

SDG # L1774726

L-246

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

* 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 # 6424 8306 8790

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
[signature]	9/5/24	12:30	[signature]		
[signature]	9/5/24	12:45	Received by: (Signature)	Temp: 2.3+0.3=2.6 TLM9 Bottles Received: 14	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) CRomero	Date: 09/06/24 Time: 0900	Hold: Condition: NCF / OK

ANALYTICAL REPORT

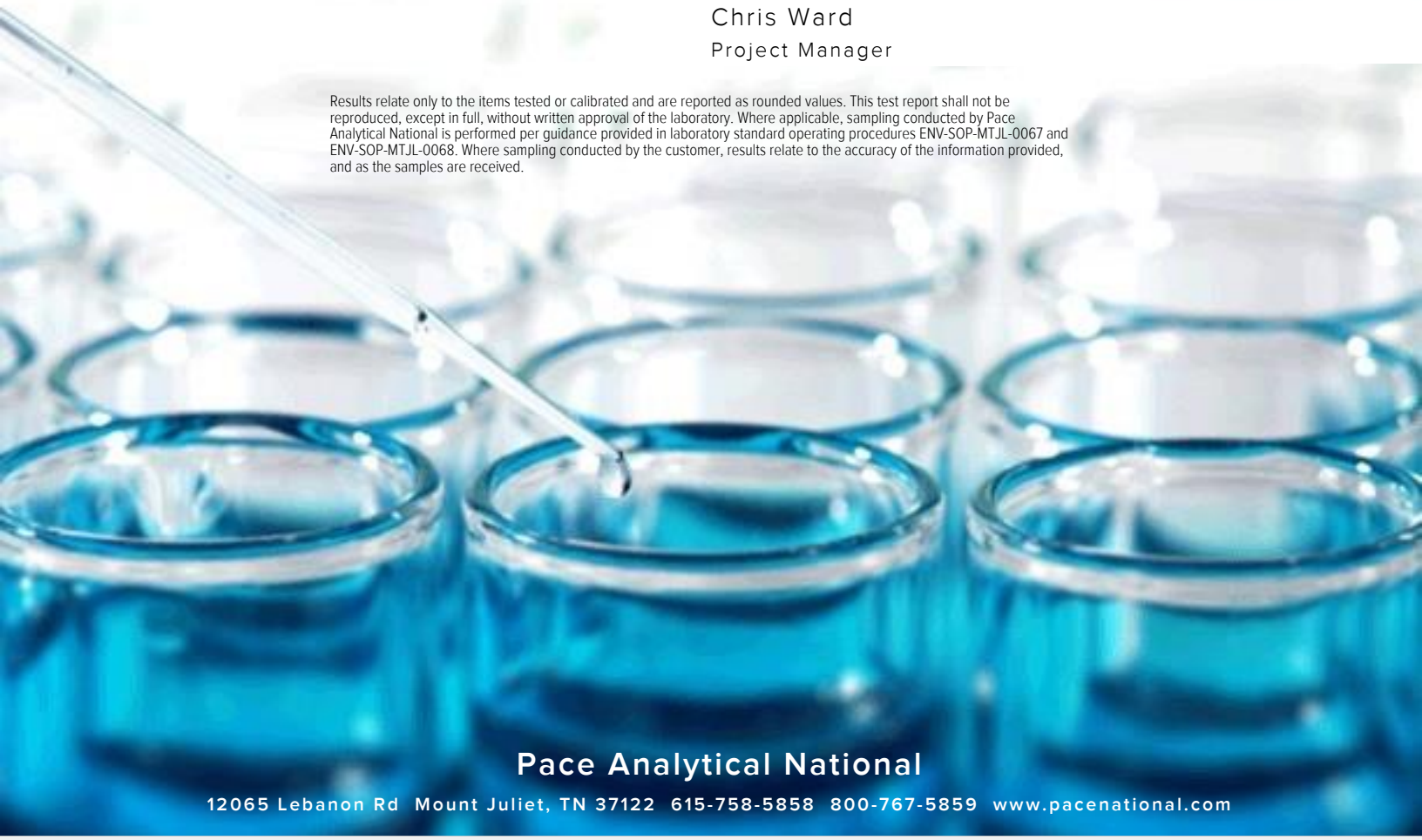
July 31, 2023

Caerus Oil and Gas

Sample Delivery Group:	L1637303
Samples Received:	07/20/2023
Project Number:	
Description:	Divide Creek Tank Breakout Investigation
Site:	DIVIDE CREEK TB
Report To:	Jake J. , Brett M. , Blair R. 143 Diamond Avenue Parachute, CO 81635

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



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

TABLE OF CONTENTS

SAMPLE SUMMARY

20230719-DCUBG-(DIVIDE CREEK TB-W)@1 L1637303-01 Solid

Collected by: Tristan Schmalz
Collected date/time: 07/19/23 09:13
Received date/time: 07/20/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2102823	1	07/28/23 17:36	07/28/23 17:36	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2101368	1	07/25/23 16:26	07/26/23 11:17	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2099152	1	07/21/23 11:36	07/21/23 13:00	MCC	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2099491	1	07/22/23 07:50	07/22/23 09:45	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2102867	1	07/27/23 12:20	07/28/23 11:02	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2099561	5	07/21/23 20:05	07/27/23 00:56	SJM	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
	SAR				
Sodium Adsorption Ratio	0.146		1	07/28/2023 17:36	WG2102823

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	07/26/2023 11:17	WG2101368

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	6.88	T8	1	07/21/2023 13:00	WG2099152

Sample Narrative:

L1637303-01 WG2099152: 6.88 at 23.7C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	31.3		10.0	1	07/22/2023 09:45	WG2099491

Sample Narrative:

L1637303-01 WG2099491: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.321		0.0167	0.200	1	07/28/2023 11:02	WG2102867

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.30		0.100	1.00	5	07/27/2023 00:56	WG2099561
Barium	151		0.152	2.50	5	07/27/2023 00:56	WG2099561
Cadmium	0.170	J	0.0855	1.00	5	07/27/2023 00:56	WG2099561
Copper	8.13		0.132	5.00	5	07/27/2023 00:56	WG2099561
Lead	8.85		0.0990	2.00	5	07/27/2023 00:56	WG2099561
Nickel	10.3		0.197	2.50	5	07/27/2023 00:56	WG2099561
Selenium	0.441	J	0.180	2.50	5	07/27/2023 00:56	WG2099561
Silver	U		0.0865	0.500	5	07/27/2023 00:56	WG2099561
Zinc	38.3		0.740	25.0	5	07/27/2023 00:56	WG2099561

QUALITY CONTROL SUMMARY

L1637303-01

Method Blank (MB)

(MB) R3952975-1 07/26/23 11:05

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

L1637974-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1637974-06 07/26/23 12:25 • (DUP) R3952975-7 07/26/23 12:30

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

L1637996-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1637996-02 07/26/23 13:12 • (DUP) R3952975-8 07/26/23 13:17

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) R3952975-2 07/26/23 11:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	11.1	111	80.0-120	

L1637305-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1637305-01 07/26/23 11:23 • (MS) R3952975-3 07/26/23 11:28 • (MSD) R3952975-4 07/26/23 11:33

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	22.1	20.6	110	103	1	75.0-125			6.90	20

L1637305-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1637305-01 07/26/23 11:23 • (MS) R3952975-5 07/26/23 11:38

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	651	U	734	113	50	75.0-125	

L1636895-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1636895-06 07/21/23 13:00 • (DUP) R3951304-2 07/21/23 13:00

Analyte	Original Result su	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	7.74	7.70	1	0.518		1

Sample Narrative:

OS: 7.74 at 24.4C

DUP: 7.7 at 24.3C

L1637309-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1637309-06 07/21/23 13:00 • (DUP) R3951304-3 07/21/23 13:00

Analyte	Original Result pH	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	8.32	8.32	1	0.000		1

Sample Narrative:

OS: 8.32 at 22.9C

DUP: 8.32 at 22.8C

Laboratory Control Sample (LCS)

(LCS) R3951304-1 07/21/23 13:00

Analyte	Spike Amount su	LCS Result su	LCS Rec. %	Rec. Limits %	LCS Qualifier
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:

LCS: 9.99 at 22.9C

Method Blank (MB)

(MB) R3951535-1 07/22/23 09:45

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

L1637493-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1637493-05 07/22/23 09:45 • (DUP) R3951535-3 07/22/23 09:45

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	93.9	94.3	1	0.425		20

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

L1637773-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1637773-16 07/22/23 09:45 • (DUP) R3951535-4 07/22/23 09:45

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	501	493	1	1.61		20

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

Laboratory Control Sample (LCS)

(LCS) R3951535-2 07/22/23 09:45

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	732	722	98.6	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3953962-1 07/28/23 10:48

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) R3953962-2 07/28/23 10:51 • (LCSD) R3953962-3 07/28/23 10:53

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	1.08	1.08	108	108	80.0-120			0.406	20

QUALITY CONTROL SUMMARY

L1637303-01

Method Blank (MB)

(MB) R3953305-1 07/26/23 23:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	0.321	J	0.152	2.50
Cadmium	U		0.0855	1.00
Copper	0.144	J	0.133	5.00
Lead	0.118	J	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) R3953305-2 07/27/23 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	96.1	96.1	80.0-120	
Barium	100	96.0	96.0	80.0-120	
Cadmium	100	96.5	96.5	80.0-120	
Copper	100	88.7	88.7	80.0-120	
Lead	100	92.5	92.5	80.0-120	
Nickel	100	95.1	95.1	80.0-120	
Selenium	100	98.5	98.5	80.0-120	
Silver	20.0	19.4	97.0	80.0-120	
Zinc	100	93.2	93.2	80.0-120	

L1637493-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1637493-06 07/27/23 00:03 • (MS) R3953305-5 07/27/23 00:13 • (MSD) R3953305-6 07/27/23 00:23

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	30.9	119	125	88.0	93.6	5	75.0-125			4.59	20
Barium	100	485	558	644	72.6	159	5	75.0-125	V	V	14.3	20
Cadmium	100	0.696	99.5	102	98.8	102	5	75.0-125			2.66	20
Copper	100	18.6	111	110	92.7	91.1	5	75.0-125			1.41	20
Lead	100	21.6	117	114	95.4	92.7	5	75.0-125			2.35	20
Nickel	100	28.6	123	121	94.2	92.6	5	75.0-125			1.33	20
Selenium	100	1.06	103	104	102	103	5	75.0-125			1.41	20
Silver	20.0	0.105	20.1	20.1	100	100	5	75.0-125			0.0249	20
Zinc	100	58.7	172	156	113	97.3	5	75.0-125			9.63	20

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.
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.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Caerus Oil and Gas
143 Diamond Avenue
Parachute, CO 81635

Billing Information: SAME AS LEFT

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

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

Report to: ~~Jake Janicek~~ Andrew Verbonitz

Email To: averbonitz ~~jjanicek~~@caerusoilandgas.com

Project Description: Divide Creek Tank Breakout Investigation

City/State Collected: Piceance Crk, CO

Please Circle: PT MT CT ET

Phone: (970) ~~778-2314~~ 902-3598

Client Project #

Lab Project # L1137308

SDG # L1137308

Table G189

Collected by (print): Tristan Schmalz

Site/Facility ID #: Divide Creek TB

P.O. #

Acctnum:

Template:

Prelogin:

PM:

PB:

Collected by (signature): Tristan Schmalz

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed: Standard TAT

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	COGCC Table 915-1 Minus Organics	EC, pH, SAR	Arsenic, Boron	COGCC Table 910-1	Remarks	Sample # (lab only)
230719-DCWBG-(DIVIDECREEKTB-WIP)	Grab	SS	1ft	7/19/2023	9:15	4	X					-01

Tristan Schmalz
7/19/2023

* 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 # 6525 5572 0494

Sample Receipt Checklist

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

	Date:	Time:			
Relinquished by: (Signature) Tristan Schmalz	7/19/2023	16:45	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by: (Signature)	7/19/23	1730	Received by: (Signature)	Temp: 6.8 °C 2.0+0=2.0	Bottles Received: 4
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7/20/23	Time: 0915

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

August 25, 2023

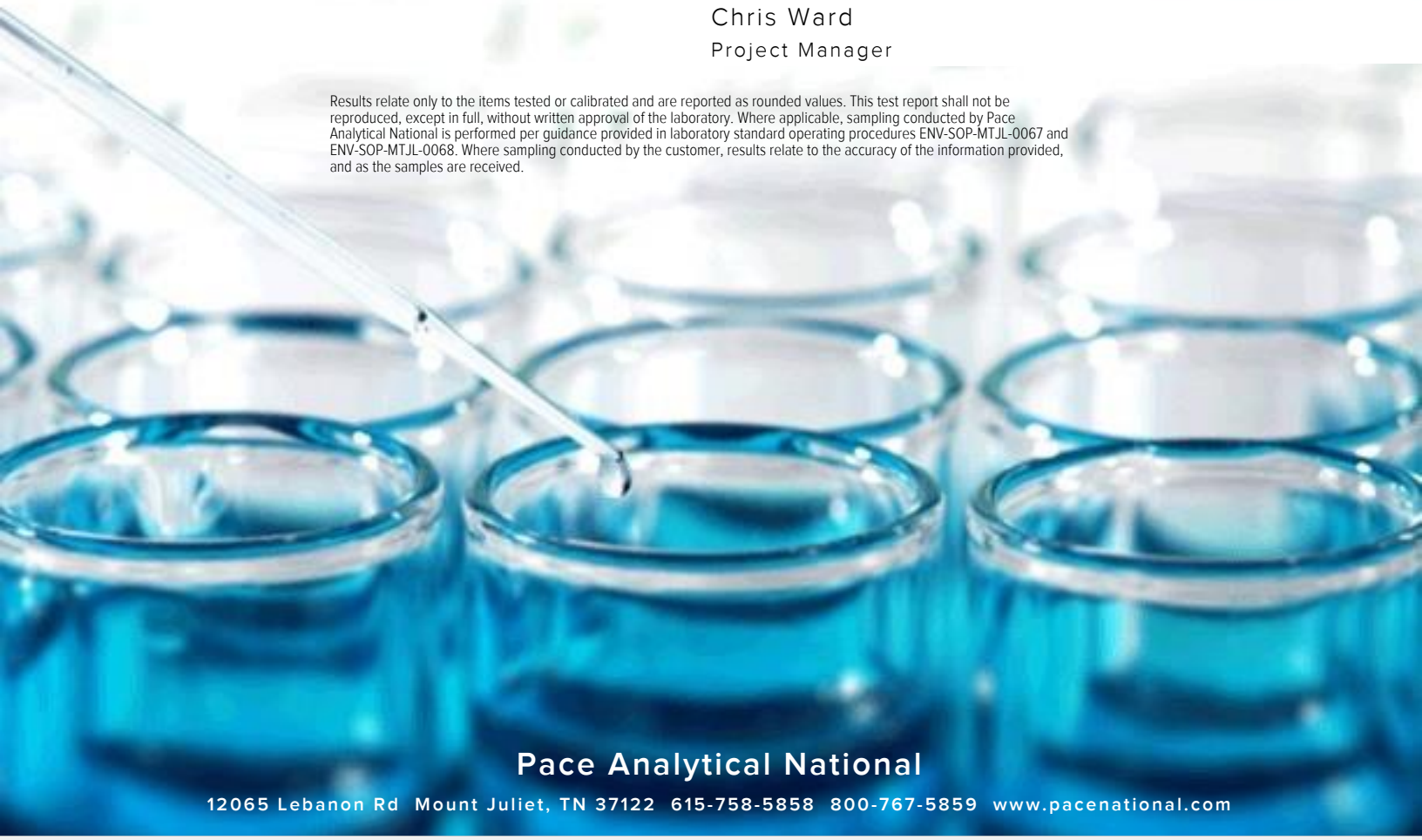
Caerus Oil and Gas

Sample Delivery Group:	L1646994
Samples Received:	08/17/2023
Project Number:	
Description:	DivideCreek TB Background Samples
Site:	DIVIDE CREEK TB
Report To:	Brett Middleton 143 Diamond Avenue Parachute, CO 81635

Entire Report Reviewed By:

Chris Ward

Project Manager



Pace Analytical National

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

TABLE OF CONTENTS

SAMPLE SUMMARY

20230816-DCUBG-(DIVIDECREETHE-W) @3 L1646994-01 Solid

Collected by: Tristan Schmalz
Collected date/time: 08/16/23 11:20
Received date/time: 08/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2117695	1	08/24/23 10:16	08/24/23 10:16	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2115503	1	08/18/23 11:06	08/21/23 14:07	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2116585	1	08/18/23 15:07	08/19/23 14:50	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2116515	1	08/18/23 07:15	08/18/23 09:57	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2117697	1	08/20/23 20:48	08/24/23 10:47	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2117158	5	08/19/23 16:52	08/24/23 20:47	LD	Mt. Juliet, TN

20230816-DCUBG-(DIVIDECREETHE-N) @3 L1646994-02 Solid

Collected by: Tristan Schmalz
Collected date/time: 08/16/23 11:46
Received date/time: 08/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2117695	1	08/24/23 10:19	08/24/23 10:19	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2115503	1	08/18/23 11:06	08/21/23 14:12	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2116585	1	08/18/23 15:07	08/19/23 14:50	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2116693	1	08/18/23 15:00	08/18/23 17:06	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2117697	1	08/20/23 20:48	08/24/23 10:49	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2117202	5	08/19/23 19:53	08/23/23 00:46	SJM	Mt. Juliet, TN

20230816-DCUBG-(DIVIDECREETHE-E) @3 L1646994-03 Solid

Collected by: Tristan Schmalz
Collected date/time: 08/16/23 12:09
Received date/time: 08/17/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2117695	1	08/24/23 10:42	08/24/23 10:42	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2115503	1	08/18/23 11:06	08/21/23 14:17	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2116585	1	08/18/23 15:07	08/19/23 14:50	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2116515	1	08/18/23 07:15	08/18/23 09:57	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2117697	1	08/20/23 20:48	08/24/23 09:53	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2117202	5	08/19/23 19:53	08/23/23 00:49	SJM	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
	SAR				
Sodium Adsorption Ratio	0.131		1	08/24/2023 10:16	WG2117695

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	08/21/2023 14:07	WG2115503

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.83	T8	1	08/19/2023 14:50	WG2116585

Sample Narrative:

L1646994-01 WG2116585: 7.83 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	235		10.0	1	08/18/2023 09:57	WG2116515

Sample Narrative:

L1646994-01 WG2116515: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.260		0.0167	0.200	1	08/24/2023 10:47	WG2117697

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.07	O1	0.100	1.00	5	08/24/2023 20:47	WG2117158
Barium	239	O1	0.152	2.50	5	08/24/2023 20:47	WG2117158
Cadmium	0.243	J	0.0855	1.00	5	08/24/2023 20:47	WG2117158
Copper	10.2		0.132	5.00	5	08/24/2023 20:47	WG2117158
Lead	13.4	O1	0.0990	2.00	5	08/24/2023 20:47	WG2117158
Nickel	14.5	O1	0.197	2.50	5	08/24/2023 20:47	WG2117158
Selenium	0.463	J	0.180	2.50	5	08/24/2023 20:47	WG2117158
Silver	U		0.0865	0.500	5	08/24/2023 20:47	WG2117158
Zinc	55.1	O1	0.740	25.0	5	08/24/2023 20:47	WG2117158

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.169		1	08/24/2023 10:19	WG2117695

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	08/21/2023 14:12	WG2115503

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	8.04	T8	1	08/19/2023 14:50	WG2116585

Sample Narrative:

L1646994-02 WG2116585: 8.04 at 20.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	104		10.0	1	08/18/2023 17:06	WG2116693

Sample Narrative:

L1646994-02 WG2116693: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.207		0.0167	0.200	1	08/24/2023 10:49	WG2117697

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.01		0.100	1.00	5	08/23/2023 00:46	WG2117202
Barium	165		0.152	2.50	5	08/23/2023 00:46	WG2117202
Cadmium	0.224	J	0.0855	1.00	5	08/23/2023 00:46	WG2117202
Copper	6.72		0.132	5.00	5	08/23/2023 00:46	WG2117202
Lead	7.42		0.0990	2.00	5	08/23/2023 00:46	WG2117202
Nickel	11.6		0.197	2.50	5	08/23/2023 00:46	WG2117202
Selenium	0.258	J	0.180	2.50	5	08/23/2023 00:46	WG2117202
Silver	U		0.0865	0.500	5	08/23/2023 00:46	WG2117202
Zinc	39.5		0.740	25.0	5	08/23/2023 00:46	WG2117202

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.196		1	08/24/2023 10:42	WG2117695

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	08/21/2023 14:17	WG2115503

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	8.02	T8	1	08/19/2023 14:50	WG2116585

Sample Narrative:

L1646994-03 WG2116585: 8.02 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	225		10.0	1	08/18/2023 09:57	WG2116515

Sample Narrative:

L1646994-03 WG2116515: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.182	J	0.0167	0.200	1	08/24/2023 09:53	WG2117697

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.51		0.100	1.00	5	08/23/2023 00:49	WG2117202
Barium	172		0.152	2.50	5	08/23/2023 00:49	WG2117202
Cadmium	0.163	J	0.0855	1.00	5	08/23/2023 00:49	WG2117202
Copper	6.18		0.132	5.00	5	08/23/2023 00:49	WG2117202
Lead	6.33		0.0990	2.00	5	08/23/2023 00:49	WG2117202
Nickel	8.57		0.197	2.50	5	08/23/2023 00:49	WG2117202
Selenium	0.271	J	0.180	2.50	5	08/23/2023 00:49	WG2117202
Silver	U		0.0865	0.500	5	08/23/2023 00:49	WG2117202
Zinc	30.7		0.740	25.0	5	08/23/2023 00:49	WG2117202

Method Blank (MB)

(MB) R3963559-1 08/21/23 12:00

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

L1646298-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1646298-01 08/21/23 12:44 • (DUP) R3963559-7 08/21/23 12:49

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

L1646782-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1646782-01 08/21/23 13:41 • (DUP) R3963559-8 08/21/23 13:46

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) R3963559-2 08/21/23 12:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	11.3	113	80.0-120	

L1646269-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646269-01 08/21/23 12:13 • (MS) R3963559-3 08/21/23 12:18 • (MSD) R3963559-4 08/21/23 12:23

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	0.611	21.5	21.6	105	105	1	75.0-125			0.170	20

L1646269-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1646269-01 08/21/23 12:13 • (MS) R3963559-5 08/21/23 12:28

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	643	0.611	529	82.2	50	75.0-125	

L1645741-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1645741-01 08/19/23 14:50 • (DUP) R3962879-2 08/19/23 14:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	9.43	9.44	1	0.106		1

Sample Narrative:

OS: 9.43 at 21C

DUP: 9.44 at 21C

L1646892-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1646892-02 08/19/23 14:50 • (DUP) R3962879-3 08/19/23 14:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	5.04	5.04	1	0.000		1

Sample Narrative:

OS: 5.04 at 20.9C

DUP: 5.04 at 20.8C

Laboratory Control Sample (LCS)

(LCS) R3962879-1 08/19/23 14:50

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: 10.01 at 21C

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

Method Blank (MB)

(MB) R3962395-1 08/18/23 09:57

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

L1646269-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1646269-02 08/18/23 09:57 • (DUP) R3962395-3 08/18/23 09:57

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	211	212	1	0.709		20

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

L1646994-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1646994-03 08/18/23 09:57 • (DUP) R3962395-4 08/18/23 09:57

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	225	229	1	1.76		20

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

Laboratory Control Sample (LCS)

(LCS) R3962395-2 08/18/23 09:57

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	732	744	102	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3962785-1 08/18/23 17:06

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

L1647546-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1647546-05 08/18/23 17:06 • (DUP) R3962785-3 08/18/23 17:06

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2250	2280	1	1.19		20

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

L1647549-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1647549-01 08/18/23 17:06 • (DUP) R3962785-4 08/18/23 17:06

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	6330	6390	1	0.943		20

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

Laboratory Control Sample (LCS)

(LCS) R3962785-2 08/18/23 17:06

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	732	744	102	85.0-115	

Sample Narrative:
LCS: at 25C

QUALITY CONTROL SUMMARY

L1646994-01,02,03

Method Blank (MB)

(MB) R3964879-1 08/24/23 10:13

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) R3964879-2 08/24/23 10:15 • (LCSD) R3964879-3 08/24/23 10:22

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	1.04	1.03	104	103	80.0-120			0.601	20

Method Blank (MB)

(MB) R3965242-1 08/24/23 20:40

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) R3965242-2 08/24/23 20:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	101	101	80.0-120	
Barium	100	97.6	97.6	80.0-120	
Cadmium	100	98.3	98.3	80.0-120	
Copper	100	90.9	90.9	80.0-120	
Lead	100	100	100	80.0-120	
Nickel	100	98.3	98.3	80.0-120	
Selenium	100	103	103	80.0-120	
Silver	20.0	19.5	97.5	80.0-120	
Zinc	100	94.9	94.9	80.0-120	

L1646994-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646994-01 08/24/23 20:47 • (MS) R3965242-5 08/24/23 20:57 • (MSD) R3965242-6 08/24/23 21:00

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	4.07	92.3	89.9	88.2	85.9	5	75.0-125			2.62	20
Barium	100	239	320	333	81.2	94.2	5	75.0-125			3.95	20
Cadmium	100	0.243	92.4	90.6	92.2	90.4	5	75.0-125			2.00	20
Copper	100	10.2	93.8	93.1	83.6	82.9	5	75.0-125			0.778	20
Lead	100	13.4	105	106	91.6	92.3	5	75.0-125			0.679	20
Nickel	100	14.5	101	97.0	86.7	82.5	5	75.0-125			4.29	20
Selenium	100	0.463	98.6	96.1	98.1	95.6	5	75.0-125			2.55	20
Silver	20.0	U	18.3	18.1	91.3	90.5	5	75.0-125			0.912	20
Zinc	100	55.1	138	135	82.7	79.6	5	75.0-125			2.31	20

Method Blank (MB)

(MB) R3964287-1 08/22/23 23:12

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	0.205	J	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) R3964287-2 08/22/23 23:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	87.8	87.8	80.0-120	
Barium	100	83.2	83.2	80.0-120	
Cadmium	100	86.9	86.9	80.0-120	
Copper	100	83.0	83.0	80.0-120	
Lead	100	87.5	87.5	80.0-120	
Nickel	100	85.2	85.2	80.0-120	
Selenium	100	89.5	89.5	80.0-120	
Silver	20.0	19.8	99.0	80.0-120	
Zinc	100	83.7	83.7	80.0-120	

L1647566-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1647566-01 08/22/23 23:19 • (MS) R3964287-5 08/22/23 23:29 • (MSD) R3964287-6 08/22/23 23:32

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	3.89	85.9	98.4	82.0	94.5	5	75.0-125			13.6	20
Barium	100	93.3	147	173	54.0	80.0	5	75.0-125	J6		16.2	20
Cadmium	100	0.578	85.2	99.2	84.6	98.6	5	75.0-125			15.1	20
Copper	100	34.2	104	121	70.1	87.1	5	75.0-125	J6		15.1	20
Lead	100	167	225	244	58.0	77.3	5	75.0-125	J6		8.25	20
Nickel	100	7.39	85.2	100	77.8	92.7	5	75.0-125			16.0	20
Selenium	100	0.193	86.9	97.9	86.7	97.7	5	75.0-125			11.9	20
Silver	20.0	0.145	19.3	21.0	95.6	104	5	75.0-125			8.38	20
Zinc	100	124	176	196	51.8	71.9	5	75.0-125	J6	J6	10.8	20

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.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.

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.

Pg 1 of 1

Caerus Oil and Gas
143 Diamond Avenue
Parachute, CO 81635

Billing Information: SAME AS LEFT

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

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

Report to: Andrew Verbonitz

Email To: averbonitz@caerusoilandgas.com

Project Description: DivideCreek TB Background Samples

City/State Collected: Piceance Crk, CO

Please Circle: PT (MT) CT ET

Phone: (970) 902-3598

Client Project #

Lab Project #

SDG # L1618994

H094

Collected by (print): Tristan Schmalz

Site/Facility ID #: Divide Creek TB

P.O. #

Collected by (signature): Tristan Schmalz

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed: Standard TAT

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

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	ECMC Table 915-1 Minus Organics	Remarks	Sample # (lab only)
20230816-DCUBG-(DIVIDECREEKTB-W)	G23 grab	SS	3 FT	8/16/23	11:20	3	X		-01
20230816-DCUBG-(DIVIDECREEKTB-N)	G23 grab	↓	↓	↓	11:46	3	X		-02
20230816-DCUBG-(DIVIDECREEKTB-E)	G23 grab				12:09	3	X		-03

Tristan Schmalz

8/16/2023

* 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 # 6525 5612 0233

Sample Receipt Checklist

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR	
Tristan Schmalz	8/16/2023	14:30			
Relinquished by : (Signature)	Date: 8/16/23	Time: 1500	Received by: (Signature)	Temp: 5.8 A 9 °C Bottles Received: 2.7+0=2.7 9	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) (18)	Date: 8/17/23 Time: 0900	Hold: / Condition: NCF / OK