

## REPORT OF WORK COMPLETION (ROWC)

Property:

**H26 596 Flowline (06A)  
Caerus Piceance, LLC  
Garfield County, Colorado  
Remediation Project Number : Not Assigned**

August 28, 2024

Ensolum Project No. 09D2436014

Prepared for:

**Caerus Piceance, LLC  
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Prepared by:



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## 1.0 INTRODUCTION

Ensolum, LLC (Ensolum) was contracted by Caerus Oil & Gas, LLC (Caerus) to complete soil assessment activities at the H26 596 Flowline (06A) (Site) located in Garfield County, Colorado. The soil assessment screening and sampling was conducted in accordance with Colorado Energy & Carbon Management Commission (ECMC) guidelines.

### 1.1 Site Description

The Site is located approximately 10.18 miles northwest of Parachute, CO within the North Parachute Ranch Field. Land use is primarily non-cropland and oil & gas operations with topography sloping to the north-northeast. The nearest surface water feature is West Fork Parachute Creek, approximately 638 feet northeast of the Site. According to data from the Division of Water Resources (DWR), there are two (2) constructed water wells within 0.5 miles of the Site. The nearest constructed water well, receipt number 3653043, is located approximately 2,038 feet east of the Site and is approximately 150 feet lower in elevation than the Site with an estimated depth to water (DTW) of 20 feet below ground (bgs). Estimated depth to groundwater is approximately 200 feet bgs.

### 1.2 Site Background

On March 30, 2024, the onsite operator observed a flowline release, as documented in Form 19, Document Number 403737080 and Supplemental Form 19, Document Number 403748610. The wellhead was immediately shut in to control any further release of liquid. No liquid surfaced, and the release volume is unknown. The area around the flowline was then excavated to pinpoint the point of release (POR).

## 2.0 FIELD ACTIVITIES

### 2.1 Initial Assessment

On April 17, 2024, an initial assessment of impacted soil was conducted at the point of release (POR) via hydrovac truck and hand auger. One (1) soil sample (H26-(POR)@6) was collected under the POR at a depth of approximately 6 feet bgs. Additionally, four (4) sidewall samples (H26-(NW01)@4, H26-(EW01)@4, H26-(SW01)@4, and H26-(WW01)@4) were taken from the existing excavation at a depth of 4 feet bgs. The soil samples were field screened for volatile organic compound (VOC) concentrations utilizing a photoionization detector (PID) and exhibited readings ranging from 0.0 to 7.1 ppm. A 10-point composite soil sample (H26-(STOCK01)) was also collected from the stockpile on location. The 10-point composite sample was collected by placing ten equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the sample by thoroughly mixing. The composite sample was field screened for volatile organic compound (VOC) concentrations using a PID and exhibited a reading of 0.0 ppm. In an effort to provide better precision for laboratory analytical results, all six (6) soil samples were submitted to Pace Analytical (Pace) and Elevation Diagnostics for split analysis of the full Table 915-1 analytical suite with a standard turnaround request.

Additionally, between April 17 and April 22, 2024, three (3) background soil samples (NPRBG-(H26-N)@1, NPRBG-(H26-SE)@1, and NPRBG-(H26-SW)@1) were collected off location in native soil at a depth of approximately 1-foot bgs. The soil samples were field screened for VOC

concentrations using a PID with all exhibiting a reading of 0.0 ppm. All three (3) soil samples were submitted to Pace for 915-1 metals and soil suitability with a standard turnaround request.

Based on the April 17, 2024, analytical results from Pace, all samples exceeded ECMC Table 915-1 protection of groundwater standards for barium and arsenic. Samples H26-(POR)@6 and H26-(SW01)@4 exceeded protection of groundwater standards for 1,3,5 trimethylbenzene. Lead exceeded protection of groundwater standards for samples H26-(STOCK01) and H26-(WW01)@4. Samples H26-(NW01)@4, H26-(EW01)@4, and H26-(WW01)@4 exceeded protection of groundwater standards for pH. Based on analytical results from Elevation Diagnostics, soil samples H26-(POR)@6, H26-(NW01)@4, H26-(EW01)@4, H26-(SW01)@4, H26-(WW01)@4, and H26-(STOCK01) exceeded protection of groundwater standards for arsenic, pH, barium, chromium, lead and selenium. Samples H26-(POR)@6 and H26-(STOCK01) exceeded standards for cadmium. Samples H26-(POR)@6 and H26-(SW01)@4 exceeded protection of groundwater standards for 1,3,5 trimethylbenzene.

A general site location map is included as Figure 1; and the Site Map displaying the location of the Site on aerial imagery is included as Figure 2. The photographic log is included as Appendix C.

## 2.2 Source Water Sampling

On the H26 596 well pad, the produced fluid from the WF06A well is transported through a three-phase flowline, through an onsite meter, and then through a gathering line where it is separated at the Middle Fork Central Tank Battery. Since the POR was on the WF06A flowline, fluid from the WF06A well is representative of the fluid that was released from its flowline. On April 22, 2024, Ensolum personnel returned to the Site to collect a source fluid sample from the WF06A wellhead to characterize the Arsenic and pH content of the fluid being produced from the H26 well pad.

Sample Name	Sample Date	Sample Type	Arsenic (mg/kg)	pH
20240422- NPRSOURCE- (H26-19024)	04/22/24	Wellhead	<0.0100	6.92

The following information outlines the well and associated formation for the H26 location:

H29 596-N. PARACHUTE SENE 26 5S96W 6	Formation
H26 596 (Location ID 415372)	WMFK

It is the Operators knowledge that the most likely source for impacts around the flowline would be due to produced fluid leaks. Based on the laboratory analytical results of the produced fluid sample collected from the wellhead, which show an absence of arsenic and a pH of 6.92 in the production stream, Caerus believes that the arsenic and pH exceedance found at the POR cannot be due to oil and natural gas production activities but are rather naturally occurring background concentrations within the area.

## 3.0 FINDINGS AND CONCLUSIONS

Based on the analytical results from the April 22, 2024, source water sampling, the produced fluid has a pH of 6.92 and an arsenic analytical result of <0.0100 mg/L. As a result, all pH and arsenic



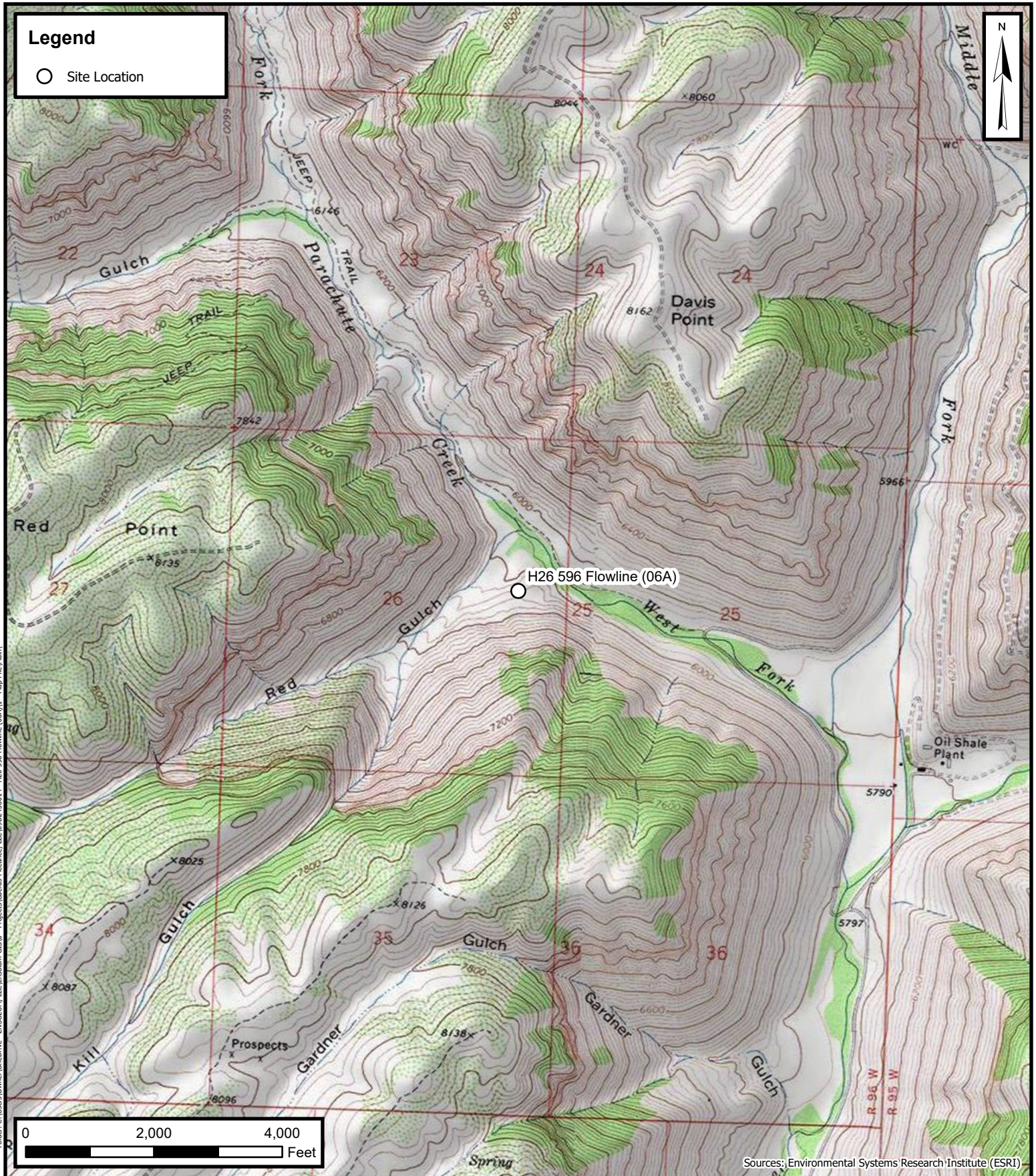
exceedances in soil samples H26-(POR)@6, H26-(NW01)@4, H26-(EW01)@4, H26-(SW01)@4, and H26-(WW01)@4 do not appear to be associated with the March 30, 2024, release.

Additional reference data drawn from background samples taken from the H26A pad, located approximately 0.10 miles north of the H26 pad, support the conclusion that all arsenic exceedances are not related to the March 30, 2024, release. Arsenic analytical results from background soil samples NPRBG-(H26A-E)@0.5, NPRBG-(H26A-N)@0.5, and NPRBG-(H26A-W)@0.5 range from 15.6 to 18.3 mg/kg, which exceed the arsenic levels within the excavation. The additional reference background data is included in Table 3. Ensolum concludes there is no reasonable pathway for groundwater within the investigation area. According to data from the Division of Water Resources (DWR) records, two water wells are within 0.5 miles of the site and are approximately 150-200 lower in elevation than the site. Estimated depth to groundwater is approximately 200 feet. Ensolum recommends a request to the ECMC for using Table 915-1 Residential soil screening levels (RSSL) cleanup concentrations. Assuming the request to utilize the use of RSSLs is approved, all COCs are compliant with Table 915-1.

Based on the April analytical results, all soil samples were below ECMC standards when compared to RSSL concentrations. Based on the produced fluid analytical results and background sample analytical results, it appears the arsenic and pH concentrations found in soils collected from the impacted area are naturally occurring and are not associated with the produced fluids associated with this release. Based on the April 17, 2024, and April 22, 2024, analytical results, Caerus is requesting an NFA determination for this site.









## Legend

○ Site Location

H26 596 Flowline (06A)

0 1,000 2,000  
Feet

Sources: Environmental Systems Research Institute (ESRI)



## Site Vicinity Map

H26 596 Flowline (06A)  
Caerus Piceance, LLC  
39.586664, -108.129779  
Garfield County, Colorado

Project Number: 09D2436014

FIGURE

2



## Legend

- Soil Sample
- Excavation Extent



H26-(STOCK01)  
H26-(WW01)@4  
H26-(NW01)@4  
H26-(POR)@6  
H26-(EW01)@4  
H26-(SW01)@4

0 75 150  
Feet

Sources: Environmental Systems Research Institute (ESRI)



## Site Map

H26 596 Flowline (06A)  
Caerus Piceance, LLC  
39.586664, -108.129779  
Garfield County, Colorado

Project Number: 09D2436014

FIGURE

3



## Legend

- ▲ Background Soil Sample
- ⊕ Groundwater Sample



## Background Sample Location Map

H26 596 Flowline (06A)  
Caerus Piceance, LLC  
39.586664, -108.129779  
Garfield County, Colorado

Project Number: 09D2436014

FIGURE

4





## Additional Reference Background Data

Caerus Piceance, LLC  
H26 596 Flowline (06A)  
39.588220, -108.129960  
Garfield County, CO

Project Number: 09D2436014







ECMC Location Name (ID): 415372

Legal Description: SENE Sec 26 T5S-R96W

Client Location Name: H26 596 Flowline (06A)

Coordinates (Lat/Long): 39.586664/-108.129779

ECMC Remediation Project(s): TBD

County: Garfield

Table 1 - Soil Sampling Summary

Soil Sample ID	Sample Type	Depth (FT BGS)	PID Reading (ppm)	Odor (Y/N)	Odor Description (If Applicable)	Staining (Y/N)	Staining Description (If Applicable)	Grab (G) or Composite (C)	Submitted for Analysis (Y/N)	Analysis or Rationale for no Submittal	Turnaround Time (TAT)
20240417-H26-(POR)@6	Point of Release	6	7.1	Y	Hydrocarbon	N	NA	G	Y	Full Table 915-1	Standard
20240417-H26-(NW01)@4	Side Wall	4	0.0	N	NA	N	NA	G	Y	Full Table 915-1	Standard
20240417-H26-(WW01)@4	Side Wall	4	0.0	N	NA	N	NA	G	Y	Full Table 915-1	Standard
20240417-H26-(SW01)@4	Side Wall	4	0.2	N	NA	N	NA	G	Y	Full Table 915-1	Standard
20240417-H26-(EW01)@4	Side Wall	4	0.0	N	NA	N	NA	G	Y	Full Table 915-1	Standard
20240417-H26-(STOCK01)	Stockpile	-	0.0	N	NA	N	NA	C	Y	Full Table 915-1	Standard
20240417-NPRBG-(H26-SW)@1	Background	1	0.0	N	NA	N	NA	G	Y	915-1 Metals and Soil Suitability	Standard
20240422-NPRSOURCE-(H26-19024)	Produced Fluid	-	-	Y	Hydrocarbon	N	NA	G	Y	915-1 Metals and pH	Standard
20240422-NPRBG-(H26-SE)@1	Background	1	0.0	N	NA	N	NA	G	Y	915-1 Metals and Soil Suitability	Standard
20240422-NPRBG-(H26-N)@1	Background	1	0.0	N	NA	N	NA	G	Y	915-1 Metals and Soil Suitability	Standard



SOIL ANALYTICAL RESULTS TABLE 2  
H26 596 Flowline (06A)

Analyte 915-1 PROTECTION OF GW 915-1 RESIDENTIAL SOIL Units				500 mg/kg	500 mg/kg	500 mg/kg	Benzene 1.2 mg/kg	Toluene 0.69 490 mg/kg	Ethylbenzene 0.78 5.8 mg/kg	Total Xylenes 9.9 58 mg/kg	1,2,4-TMB 0.0081 30 mg/kg	1,3,5-TMB 0.0087 27 mg/kg	Acenaphthene 0.55 360 mg/kg	Anthracene 5.8 1800 mg/kg	Benz(a)anthracene 0.011 1.1 mg/kg	Benz(b)fluoranthene 0.3 1.1 mg/kg	Benz(k)fluoranthene 2.9 11 mg/kg	Benz(g)pyrene 0.24 0.11 mg/kg	Chrysene 9 110 mg/kg	Dibenz(a,h)anthracene 0.096 0.11 mg/kg	Fluoranthene 5.9 240 mg/kg	Fluorene 0.54 240 mg/kg	Indeno(1,2,3-cd)Pyrene 0.98 1.1 mg/kg	1-Methylnaphthalene 0.006 18 mg/kg	2-Methylnaphthalene 0.019 24 mg/kg	Naphthalene 0.0038 2 mg/kg	Pyrene 1.3 180 mg/kg	
Sample Name	Sample Type	Sample Date	Lab Report																									
20240417-H26-(EW01)@#4	Soil Boring	04/17/2024	AA07303	< 0.26827	< 100	< 100	< 0.00242	< 0.00263	< 0.005	< 0.00654	< 0.00245	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
20240417-H26-(NW01)@#4	Soil Boring	04/17/2024	AA07300	< 0.26827	< 100	< 100	< 0.00242	< 0.00263	< 0.005	< 0.00654	< 0.00245	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
20240417-H26-(POR)@#6	POR	04/17/2024	AA07299	0.46601	< 100	< 100	< 0.00242	< 0.00263	< 0.005	< 0.00654	< 0.00245	0.03576	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
20240417-H26-(SW01)@#4	Soil Boring	04/17/2024	AA07302	< 0.26827	< 100	< 100	< 0.00242	< 0.00263	< 0.005	< 0.00654	< 0.00245	0.0329	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
20240417-H26-(WW01)@#4	Soil Boring	04/17/2024	AA07301	< 0.26827	< 100	< 100	< 0.00242	< 0.00263	< 0.005	< 0.00654	< 0.00245	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
20240417-H26-(EW01)@#4	Soil Boring	04/17/2024	L1727206	0.148	29.1	52.8	< 0.00101	< 0.00505	< 0.00253	< 0.00656	< 0.00505	< 0.00505	< 0.00600	< 0.00600	< 0.00600	0.0116	< 0.00600	< 0.00600	0.00634	< 0.00600	0.00740	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600
20240417-H26-(NW01)@#4	Soil Boring	04/17/2024	L1727206	0.111	45.8	83.9	< 0.00100	< 0.00500	< 0.00250	< 0.00650	< 0.00500	< 0.00500	< 0.00600	< 0.00600	< 0.00600	0.0164	< 0.00600	< 0.00600	0.00843	< 0.00600	0.0105	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600
20240417-H26-(POR)@#6	POR	04/17/2024	L1727206	0.392	27.3	48.2	0.00143	0.00823	< 0.00250	0.0164	< 0.00500	0.0371	< 0.00600	< 0.00600	< 0.00600	0.0117	< 0.00600	< 0.00600	0.00651	< 0.00600	0.00829	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600
20240417-H26-(STOCK01)	Stockpile	04/17/2024	AA07298	< 0.26827	< 100	< 100	< 0.00242	< 0.00263	< 0.005	< 0.00654	< 0.00245	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
20240417-H26-(STOCK01)	Stockpile	04/17/2024	L1727206	0.104	24.4	36.6	< 0.00101	< 0.00505	< 0.00253	< 0.00656	< 0.00505	< 0.00505	< 0.00600	< 0.00600	< 0.00600	0.00849	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600
20240417-H26-(SW01)@#4	Soil Boring	04/17/2024	L1727206	0.135	23.1	40.7	0.00138	0.00860	< 0.00250	0.0141	< 0.00500	0.0232	< 0.00600	< 0.00600	< 0.00600	0.0148	< 0.00600	< 0.00600	0.00741	< 0.00600	0.00987	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600
20240417-H26-(WW01)@#4	Soil Boring	04/17/2024	L1727206	0.124	17.1	33.7	< 0.00101	< 0.00505	< 0.00253	< 0.00656	< 0.00505	< 0.00505	< 0.00600	< 0.00600	< 0.00600	0.0103	< 0.00600	< 0.00600	< 0.00600	< 0.00600	0.00761	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600	< 0.00600

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



SOIL ANALYTICAL RESULTS TABLE 3  
H26 596 Flowline (06A)

Analyte				EC	SAR	pH	Boron	Arsenic	Barium	Cadmium	Chromium VI	Copper	Lead	Nickel	Selenium	Silver	Zinc
915-1 PROTECTION OF GW				4	6	8.3	2	0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
915-1 RESIDENTIAL SOIL				4	6	8.3	2	0.68	15000	71	0.3	3100	400	1500	390	390	23000
Units				mmhos/cm	No Unit	SU	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Name	Sample Type	Sample Date	Lab Report														
20240417-H26-(EW01)@4	Side Wall	04/17/2024	L1727206	0.454	0.639	8.31	0.494	13.3	973	< 1.00	< 1.00	22.9	13.2	16.7	< 2.50	< 0.500	53.1
20240417-H26-(NW01)@4	Side Wall	04/17/2024	L1727206	0.504	1.03	8.33	0.447	13.4	833	< 1.00	< 1.00	23.1	13.7	19.2	< 2.50	< 0.500	53.1
20240417-H26-(POR)@6	POR	04/17/2024	L1727206	0.412	0.759	8.21	0.687	13.6	1230	< 1.00	< 1.00	26.5	13.0	17.6	< 2.50	< 0.500	54.3
20240417-H26-(STOCK01)	Stockpile	04/17/2024	L1727206	0.348	0.566	8.25	0.658	17.7	1070	< 1.00	< 1.00	29.4	16.5	19.8	< 2.50	< 0.500	58.1
20240417-H26-(SW01)@4	Side Wall	04/17/2024	L1727206	0.419	0.434	8.27	0.281	13.2	1100	< 1.00	< 1.00	26.6	13.8	18.7	< 2.50	< 0.500	56.2
20240417-H26-(WW01)@4	Side Wall	04/17/2024	L1727206	0.455	0.755	8.36	0.540	16.8	874	< 1.00	< 1.00	26.3	15.9	19.3	< 2.50	< 0.500	60.5
20240417 H26 (EW01)@4	Soil Boring	04/17/2024	AA07303	0.33	1.107	8.9	0.536	11.708	1116.24	0.364	0.1343	25.348	15.166	16.11	1.393	< 0.25	54.08
20240417 H26 (NW01)@4	Soil Boring	04/17/2024	AA07300	0.383	1.509	8.91	0.66	12.764	1109.361	0.373	0.1587	23.849	15.161	15.896	1.787	< 0.25	53.522
20240417 H26 (POR)@6	POR	04/17/2024	AA07299	0.339	1.185	8.99	0.546	14.271	1414.336	0.501	0.1181	29.408	18.055	18.803	1.754	< 0.25	61.123
20240417 H26 (SW01)@4	Soil Boring	04/17/2024	AA07302	0.57	0.881	8.93	0.516	11.839	1135.094	0.342	0.1603	27.342	16.544	16.636	1.841	< 0.25	59.314
20240417 H26 (WW01)@4	Soil Boring	04/17/2024	AA07301	0.456	1.272	9.02	0.707	12.407	1243.757	0.325	0.1631	23.864	14.541	16.281	1.967	< 0.25	53.978
20240417-H26-(STOCK01)	Stockpile	04/17/2024	AA07298	0.379	1.166	8.9	0.612	14.56	894.196	0.477	0.1779	24.64	14.626	16.24	1.88	< 0.25	51.563
20240417-NPRBG-(H26-SW)@1	Background	04/17/2024	L1727206	0.301	0.0754	7.65	< 0.200	12.5	262	< 1.00	< 1.00	17.5	15.2	17.0	< 2.50	< 0.500	52.6
20240422-NPRBG-(H26-SE)@1	Background	04/22/2024	L1728558	0.207	0.151	7.93	0.803	10.3	315	<1.00	< 1.00	19.1	14.2	16.8	< 2.50	< 0.500	65.4
20240422-NPRBG-(H26-N)@1	Background	04/22/2024	L1728558	0.155	0.579	8.17	0.430	11.3	176	< 1.00	< 1.00	12.8	10.3	11.9	< 2.50	< 0.500	33.4
20240430-NPRBG-(H26A-E)@0.5	Background	04/30/2024	L1731433	0.353	0.0892	7.71	0.922	17.9	314	< 1.00	< 1.00	22.7	16.9	17.2	< 2.50	< 0.500	65.7
20240430-NPRBG-(H26A-N)@0.5	Background	04/30/2024	L1731433	1.66	0.139	6.94	0.615	18.3	238	< 1.00	< 1.00	14.9	10.7	12.2	< 2.50	< 0.500	58.7
20240430-NPRBG-(H26A-S)@0.5	Background	04/30/2024	L1731433	0.941	0.208	7.68	<0.200	8.45	221	< 1.00	< 1.00	12.9	7.45	10	< 2.50	< 0.500	31.1
20240430-NPRBG-(H26A-W)@0.5	Background	04/30/2024	L1731433	0.331	0.407	8.02	0.451	15.6	285	< 1.00	< 1.00	19.2	18.3	14.3	< 2.50	< 0.500	38.4

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



SOURCE FLUID ANALYTICAL RESULTS TABLE  
H26 596 Flowline (06A)

Analyte 915-1 WATER				Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	1,2,4-TMB	1,3,5-TMB	TDS	TSS	Arsenic	Barium	Cadmium	Copper	Lead	Methanol	Nickel	pH	Selenium	Silver	Sulfide	Zinc
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L
				Units																				
Sample Name	Sample	Sample	Lab Report																					
20240422-NPRSOURCE-(H26-190)	Source Fluid	04/22/2024	L1728561										< 0.0100	40.8	< 0.00500	< 0.0250	< 0.0100		< 0.0100	6.92	< 0.0100	< 0.0100		< 0.125


Notes:


**Bold with blue highlight:** Exceeds Water Standards

"<" (as in, less than laboratory reporting detection limit)






PHOTOGRAPHIC LOG		
Caerus Piceance, LLC	<b>H26 596 Flowline (06A)</b> Garfield County, Colorado	Sample ID: 20240417-H26-(POR)@6
Date: April 17, 2024	<b>Photo No. 1 – POR, EW, SW</b>	Coordinates Lat/Long: 39.586698/ -108.129836
<div> <div> <p> Date &amp; Time: Wed, Apr 17, 2024 at 11:22:58 MDT  Position: +039.586698° / -108.129836° (±13.7ft)  Altitude: 6076ft (±13.4ft)  Datum: WGS-84  Azimuth/Bearing: 358° N02W 6364mils True (±14°)  Elevation Angle: -25.8°  Horizon Angle: +02.6°  Zoom: 0.5X  Excavation Extent: </p> </div>  </div>		
View facing southeast of point of release (POR).		


PHOTOGRAPHIC LOG		
Caerus Piceance, LLC	<b>H26 596 Flowline (06A)</b> Garfield County, Colorado	Sample ID: 20240417-H26-(STOCK01)
Date: April 17, 2024	<b>Photo No. 2 – STOCK01</b>	Coordinates Lat/Long: 39.586807/ -108.129734
<div> <div> <p> Date &amp; Time: Wed, Apr 17, 2024 at 11:40:34 MDT  Position: +039.586807° / -108.129734° (±12.1ft)  Altitude: 6091ft (±19.7ft)  Datum: WGS-84  Azimuth/Bearing: 188° S08W 3342mils True (±14°)  Elevation Angle: -10.7°  Horizon Angle: +00.2°  Zoom: 0.5X  Stockpile </p> </div>  </div>		
View facing west of stockpile.		




PHOTOGRAPHIC LOG		
Caerus Piceance, LLC	<b>H26 596 Flowline (06A)</b> Garfield County, Colorado	Sample ID: 20240417-NPRBG-(H26-SW)@1
Date: April 17, 2024	<b>Photo No. 3 – H26-SW</b>	Coordinates Lat/Long: 39.586185/ -108.130825
<div> <div> Date &amp; Time: Wed, Apr 17, 2024 at 13:01:18 MDT  Position: +039.586185° / -108.130825° (±15.5ft)  Altitude: 6133ft (±11.1ft)  Datum: WGS-84  Azimuth/Bearing: 211° S31W 3751mils True (±13°)  Elevation Angle: -14.3°  Horizon Angle: -00.5°  Zoom: 0.5X  NPRBG-(H26-SW) </div>  </div>		
View facing southwest of background sample H26-SW.		


PHOTOGRAPHIC LOG		
Caerus Piceance, LLC	<b>H26 596 Flowline (06A)</b> Garfield County, Colorado	Sample ID: 20240417-H26-(NW01)@4
Date: April 17, 2024	<b>Photo No. 4 – NW01</b>	Coordinates Lat/Long: 39.586661/ -108.129871
<div> <div> Date &amp; Time: Wed, Apr 17, 2024 at 13:35:12 MDT  Position: +039.586661° / -108.129871° (±15.7ft)  Altitude: 6097ft (±10.9ft)  Datum: WGS-84  Azimuth/Bearing: 299° N61W 5316mils True (±13°)  Elevation Angle: -18.2°  Horizon Angle: +03.3°  Zoom: 0.5X  Excavation Extent </div>  </div>		
View facing northeast of the excavation extent.		



PHOTOGRAPHIC LOG		
Caerus Piceance, LLC	<b>H26 596 Flowline (06A)</b> Garfield County, Colorado	Sample ID: 20240422-NPRSOURCE-(H26-19024)
Date: April 22, 2024	<b>Photo No. 1 – Well Sign</b>	Coordinates Lat/Long: 39.586726/-108.130314
<div> <div> <p>Date &amp; Time: Mon, Apr 22, 2024 at 10:14:54 MDT  Position: +039.586726 / -108.130314 (±57.6ft)  Altitude: 6137ft (±105.0ft)  Datum: WGS-84  Azimuth/Bearing: 043° N43E 0764mils True (±12°)  Elevation Angle: -29.3°  Horizon Angle: +02.0°  Zoom: 0.5X  H26 Produced Fluid Sample Sign</p> </div>  </div>		
View facing east of the well sign.		

PHOTOGRAPHIC LOG		
Caerus Piceance, LLC	<b>H26 596 Flowline (06A)</b> Garfield County, Colorado	Sample ID: 20240422-NPRSOURCE-(H26-19024)
Date: April 22, 2024	<b>Photo No. 2 – H26-19024</b>	Coordinates Lat/Long: 39.58586649/-108.129793
<div> <div> <p>Date &amp; Time: Mon, Apr 22, 2024 at 10:38:07 MDT  Position: +039.586649 / -108.129793 (±15.1ft)  Altitude: 6090ft (±11.7ft)  Datum: WGS-84  Azimuth/Bearing: 347° N13W 6169mils True (±13°)  Elevation Angle: -19.9°  Horizon Angle: +01.8°  Zoom: 0.5X  H26 Produced Fluid Sample</p> </div>  </div>		
View facing north of 06A wellhead.		



PHOTOGRAPHIC LOG		
Caerus Piceance, LLC	<b>H26 596 Flowline (06A)</b> Garfield County, Colorado	Sample ID: 20240422-NPRBG-(H26-N)@1
Date: April 22, 2024	<b>Photo No. 3 – H26-N</b>	Coordinates Lat/Long: 39.587981/-108.129601
<div><div><div>Date &amp; Time: Mon, Apr 22, 2024 at 10:53:34 MDt Position: +039.587981° / -108.129601° (±15.6ft) Altitude: 5983ft (±11.0ft) Datum: WGS-84 Azimuth/Bearing: 210° S90W 3733mils True (±11°) Elevation Angle: -13.8° Horizon Angle: +06.6° Zoom: 0.5X NPRBG-(H26-N)</div><div></div></div></div> <div>View facing southwest of background sample H26-N.</div>		



## Caerus Oil and Gas

Sample Delivery Group: L1727206  
Samples Received: 04/18/2024  
Project Number:  
Description: H26 596 Flowline (06A)

Report To: Jake J. / Brett M. / Blair R. / Andy V.  
143 Diamond Avenue  
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward  
Project Manager

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

### Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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SAMPLE SUMMARY

20240417-H26-(POR)@6 L1727206-05 Solid

Collected by  
MR / GG

Collected date/time  
04/17/24 11:25

Received date/time  
04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2271336	1	04/22/24 16:42	04/22/24 16:42	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2268647	1	04/19/24 11:53	04/22/24 12:43	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2270291	1	04/19/24 08:28	04/19/24 22:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2270855	1	04/19/24 19:14	04/21/24 13:48	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2272571	1	04/24/24 10:22	04/24/24 12:57	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2270379	5	04/20/24 13:57	04/23/24 20:36	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2272910	1	04/22/24 20:59	04/24/24 01:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2272727	1	04/22/24 20:59	04/24/24 11:27	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2272138	1	04/23/24 06:08	04/23/24 12:22	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2271403	1	04/23/24 05:55	04/23/24 17:39	ALM	Mt. Juliet, TN

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

20240417-H26-(NW01)@4 L1727206-06 Solid

Collected by  
MR / GG

Collected date/time  
04/17/24 11:30

Received date/time  
04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2271330	1	04/22/24 09:43	04/22/24 09:43	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2268647	1	04/19/24 11:53	04/22/24 12:49	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2270291	1	04/19/24 08:28	04/19/24 22:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2270855	1	04/19/24 19:14	04/21/24 13:48	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2271332	1	04/21/24 08:09	04/21/24 16:32	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2270379	5	04/20/24 13:57	04/23/24 20:39	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2272910	1	04/22/24 20:59	04/24/24 01:39	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2272727	1	04/22/24 20:59	04/24/24 11:46	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2272138	1	04/23/24 06:08	04/23/24 13:00	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2271403	1	04/23/24 05:55	04/23/24 17:57	ALM	Mt. Juliet, TN

20240417-H26-(WW01)@4 L1727206-07 Solid

Collected by  
MR / GG

Collected date/time  
04/17/24 11:35

Received date/time  
04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2271330	1	04/22/24 09:45	04/22/24 09:45	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2268647	1	04/19/24 11:53	04/22/24 12:55	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2270291	1	04/19/24 08:28	04/19/24 22:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2270855	1	04/19/24 19:14	04/21/24 13:48	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2271332	1	04/21/24 08:09	04/21/24 16:33	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2270379	5	04/20/24 13:57	04/23/24 20:50	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2272910	1	04/22/24 20:59	04/24/24 02:02	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2272727	1.01	04/22/24 20:59	04/24/24 12:05	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2272138	1	04/23/24 06:08	04/23/24 11:56	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2271403	1	04/23/24 05:55	04/23/24 18:15	ALM	Mt. Juliet, TN

20240417-H26-(SW01)@4 L1727206-08 Solid

Collected by  
MR / GG

Collected date/time  
04/17/24 11:40

Received date/time  
04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2271330	1	04/22/24 09:47	04/22/24 09:47	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2268647	1	04/19/24 11:53	04/22/24 13:01	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2270291	1	04/19/24 08:28	04/19/24 22:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2270855	1	04/19/24 19:14	04/21/24 13:48	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2271332	1	04/21/24 08:09	04/21/24 16:38	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2270379	5	04/20/24 13:57	04/23/24 20:53	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2272910	1.01	04/22/24 20:59	04/24/24 02:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2272727	1	04/22/24 20:59	04/24/24 12:24	JBE	Mt. Juliet, TN



# SAMPLE SUMMARY

20240417-H26-(SW01)@4 L1727206-08 Solid

Collected by  
MR / GG

Collected date/time  
04/17/24 11:40

Received date/time  
04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2272138	1	04/23/24 06:08	04/23/24 12:09	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2271403	1	04/23/24 05:55	04/23/24 18:33	ALM	Mt. Juliet, TN

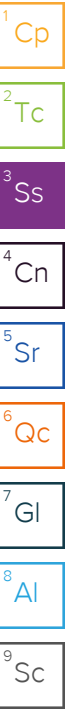
20240417-H26-(EW01)@4 L1727206-09 Solid

Collected by  
MR / GG

Collected date/time  
04/17/24 11:45

Received date/time  
04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2271330	1	04/22/24 09:51	04/22/24 09:51	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2268647	1	04/19/24 11:53	04/22/24 13:26	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2270291	1	04/19/24 08:28	04/19/24 22:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2270855	1	04/19/24 19:14	04/21/24 13:48	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2271332	1	04/21/24 08:09	04/21/24 16:40	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2270379	5	04/20/24 13:57	04/23/24 20:57	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2272910	1	04/22/24 20:59	04/24/24 02:48	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2272727	1.01	04/22/24 20:59	04/24/24 12:44	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2272138	1	04/23/24 06:08	04/23/24 12:35	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2272029	1	04/22/24 19:45	04/23/24 19:26	ALM	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

## Report Revision History

---

Level II Report - Version 1: 04/25/24 15:39  
Level II Report - Version 2: 04/29/24 12:05  
Level II Report - Version 3: 04/29/24 12:53  
Level II Report - Version 4: 04/29/24 13:16

## Project Narrative

---

Version C



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.759		1	04/22/2024 16:42	WG2271336

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/22/2024 12:43	<a href="#">WG2268647</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.21	<a href="#">T8</a>	1	04/19/2024 22:10	<a href="#">WG2270291</a>

Sample Narrative:  
L1727206-05 WG2270291: 8.21 at 20C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	412		10.0	1	04/21/2024 13:48	<a href="#">WG2270855</a>

Sample Narrative:  
L1727206-05 WG2270855: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.687		0.200	1	04/24/2024 12:57	<a href="#">WG2272571</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	13.6		1.00	5	04/23/2024 20:36	<a href="#">WG2270379</a>
Barium	1230		2.50	5	04/23/2024 20:36	<a href="#">WG2270379</a>
Cadmium	ND		1.00	5	04/23/2024 20:36	<a href="#">WG2270379</a>
Copper	26.5		5.00	5	04/23/2024 20:36	<a href="#">WG2270379</a>
Lead	13.0		2.00	5	04/23/2024 20:36	<a href="#">WG2270379</a>
Nickel	17.6		2.50	5	04/23/2024 20:36	<a href="#">WG2270379</a>
Selenium	ND		2.50	5	04/23/2024 20:36	<a href="#">WG2270379</a>
Silver	ND		0.500	5	04/23/2024 20:36	<a href="#">WG2270379</a>
Zinc	54.3		25.0	5	04/23/2024 20:36	<a href="#">WG2270379</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.392	<a href="#">B</a>	0.100	1	04/24/2024 01:17	<a href="#">WG2272910</a>
(S) a,a,a-Trifluorotoluene(FID)	91.1		77.0-120		04/24/2024 01:17	<a href="#">WG2272910</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00143		0.00100	1	04/24/2024 11:27	<a href="#">WG2272727</a>
Toluene	0.00823		0.00500	1	04/24/2024 11:27	<a href="#">WG2272727</a>
Ethylbenzene	ND		0.00250	1	04/24/2024 11:27	<a href="#">WG2272727</a>
Xylenes, Total	0.0164		0.00650	1	04/24/2024 11:27	<a href="#">WG2272727</a>
1,2,4-Trimethylbenzene	ND		0.00500	1	04/24/2024 11:27	<a href="#">WG2272727</a>
1,3,5-Trimethylbenzene	0.0371		0.00500	1	04/24/2024 11:27	<a href="#">WG2272727</a>
(S) Toluene-d8	106		75.0-131		04/24/2024 11:27	<a href="#">WG2272727</a>
(S) 4-Bromofluorobenzene	101		67.0-138		04/24/2024 11:27	<a href="#">WG2272727</a>
(S) 1,2-Dichloroethane-d4	89.0		70.0-130		04/24/2024 11:27	<a href="#">WG2272727</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	27.3		4.00	1	04/23/2024 12:22	<a href="#">WG2272138</a>
C28-C36 Motor Oil Range	48.2		4.00	1	04/23/2024 12:22	<a href="#">WG2272138</a>
(S) o-Terphenyl	50.2		18.0-148		04/23/2024 12:22	<a href="#">WG2272138</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Anthracene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Benzo(a)anthracene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Benzo(b)fluoranthene	0.0117		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Benzo(k)fluoranthene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Benzo(a)pyrene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Chrysene	0.00651		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Dibenz(a,h)anthracene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Fluoranthene	0.00829		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Fluorene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
1-Methylnaphthalene	ND		0.0200	1	04/23/2024 17:39	<a href="#">WG2271403</a>
2-Methylnaphthalene	ND		0.0200	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Naphthalene	ND		0.0200	1	04/23/2024 17:39	<a href="#">WG2271403</a>
Pyrene	ND		0.00600	1	04/23/2024 17:39	<a href="#">WG2271403</a>
(S) p-Terphenyl-d14	71.6		23.0-120		04/23/2024 17:39	<a href="#">WG2271403</a>
(S) Nitrobenzene-d5	77.9		14.0-149		04/23/2024 17:39	<a href="#">WG2271403</a>
(S) 2-Fluorobiphenyl	79.0		34.0-125		04/23/2024 17:39	<a href="#">WG2271403</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.03		1	04/22/2024 09:43	WG2271330

1  
Cp

2  
Tc

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/22/2024 12:49	<a href="#">WG2268647</a>

3  
Ss

4  
Cn

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.33	<a href="#">T8</a>	1	04/19/2024 22:10	<a href="#">WG2270291</a>

5  
Sr

6  
Qc

Sample Narrative:

L1727206-06 WG2270291: 8.33 at 20.4C

7  
Gl

8  
Al

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	504		10.0	1	04/21/2024 13:48	<a href="#">WG2270855</a>

9  
Sc

Sample Narrative:

L1727206-06 WG2270855: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.447		0.200	1	04/21/2024 16:32	<a href="#">WG2271332</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	13.4		1.00	5	04/23/2024 20:39	<a href="#">WG2270379</a>
Barium	833		2.50	5	04/23/2024 20:39	<a href="#">WG2270379</a>
Cadmium	ND		1.00	5	04/23/2024 20:39	<a href="#">WG2270379</a>
Copper	23.1		5.00	5	04/23/2024 20:39	<a href="#">WG2270379</a>
Lead	13.7		2.00	5	04/23/2024 20:39	<a href="#">WG2270379</a>
Nickel	19.2		2.50	5	04/23/2024 20:39	<a href="#">WG2270379</a>
Selenium	ND		2.50	5	04/23/2024 20:39	<a href="#">WG2270379</a>
Silver	ND		0.500	5	04/23/2024 20:39	<a href="#">WG2270379</a>
Zinc	53.1		25.0	5	04/23/2024 20:39	<a href="#">WG2270379</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.111	<a href="#">B</a>	0.100	1	04/24/2024 01:39	<a href="#">WG2272910</a>
(S) a,a,a-Trifluorotoluene(FID)	90.2		77.0-120		04/24/2024 01:39	<a href="#">WG2272910</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	04/24/2024 11:46	<a href="#">WG2272727</a>
Toluene	ND		0.00500	1	04/24/2024 11:46	<a href="#">WG2272727</a>
Ethylbenzene	ND		0.00250	1	04/24/2024 11:46	<a href="#">WG2272727</a>
Xylenes, Total	ND		0.00650	1	04/24/2024 11:46	<a href="#">WG2272727</a>
1,2,4-Trimethylbenzene	ND		0.00500	1	04/24/2024 11:46	<a href="#">WG2272727</a>
1,3,5-Trimethylbenzene	ND		0.00500	1	04/24/2024 11:46	<a href="#">WG2272727</a>
(S) Toluene-d8	108		75.0-131		04/24/2024 11:46	<a href="#">WG2272727</a>
(S) 4-Bromofluorobenzene	102		67.0-138		04/24/2024 11:46	<a href="#">WG2272727</a>
(S) 1,2-Dichloroethane-d4	89.9		70.0-130		04/24/2024 11:46	<a href="#">WG2272727</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	45.8		4.00	1	04/23/2024 13:00	<a href="#">WG2272138</a>
C28-C36 Motor Oil Range	83.9		4.00	1	04/23/2024 13:00	<a href="#">WG2272138</a>
(S) o-Terphenyl	48.0		18.0-148		04/23/2024 13:00	<a href="#">WG2272138</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Anthracene	ND		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Benzo(a)anthracene	0.00710		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Benzo(b)fluoranthene	0.0164		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Benzo(k)fluoranthene	ND		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Benzo(a)pyrene	ND		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Chrysene	0.00843		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Dibenz(a,h)anthracene	ND		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Fluoranthene	0.0105		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Fluorene	ND		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
1-Methylnaphthalene	ND		0.0200	1	04/23/2024 17:57	<a href="#">WG2271403</a>
2-Methylnaphthalene	ND		0.0200	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Naphthalene	ND		0.0200	1	04/23/2024 17:57	<a href="#">WG2271403</a>
Pyrene	ND		0.00600	1	04/23/2024 17:57	<a href="#">WG2271403</a>
(S) p-Terphenyl-d14	73.6		23.0-120		04/23/2024 17:57	<a href="#">WG2271403</a>
(S) Nitrobenzene-d5	80.4		14.0-149		04/23/2024 17:57	<a href="#">WG2271403</a>
(S) 2-Fluorobiphenyl	78.4		34.0-125		04/23/2024 17:57	<a href="#">WG2271403</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.755		1	04/22/2024 09:45	WG2271330

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/22/2024 12:55	<a href="#">WG2268647</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.36	<a href="#">T8</a>	1	04/19/2024 22:10	<a href="#">WG2270291</a>

Sample Narrative:  
L1727206-07 WG2270291: 8.36 at 20.5C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	455		10.0	1	04/21/2024 13:48	<a href="#">WG2270855</a>

Sample Narrative:  
L1727206-07 WG2270855: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.540		0.200	1	04/21/2024 16:33	<a href="#">WG2271332</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	16.8		1.00	5	04/23/2024 20:50	<a href="#">WG2270379</a>
Barium	874		2.50	5	04/23/2024 20:50	<a href="#">WG2270379</a>
Cadmium	ND		1.00	5	04/23/2024 20:50	<a href="#">WG2270379</a>
Copper	26.3		5.00	5	04/23/2024 20:50	<a href="#">WG2270379</a>
Lead	15.9		2.00	5	04/23/2024 20:50	<a href="#">WG2270379</a>
Nickel	19.3		2.50	5	04/23/2024 20:50	<a href="#">WG2270379</a>
Selenium	ND		2.50	5	04/23/2024 20:50	<a href="#">WG2270379</a>
Silver	ND		0.500	5	04/23/2024 20:50	<a href="#">WG2270379</a>
Zinc	60.5		25.0	5	04/23/2024 20:50	<a href="#">WG2270379</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.124	<a href="#">B</a>	0.100	1	04/24/2024 02:02	<a href="#">WG2272910</a>
(S) a,a,a-Trifluorotoluene(FID)	92.1		77.0-120		04/24/2024 02:02	<a href="#">WG2272910</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00101	1.01	04/24/2024 12:05	<a href="#">WG2272727</a>
Toluene	ND		0.00505	1.01	04/24/2024 12:05	<a href="#">WG2272727</a>
Ethylbenzene	ND		0.00253	1.01	04/24/2024 12:05	<a href="#">WG2272727</a>
Xylenes, Total	ND		0.00656	1.01	04/24/2024 12:05	<a href="#">WG2272727</a>
1,2,4-Trimethylbenzene	ND		0.00505	1.01	04/24/2024 12:05	<a href="#">WG2272727</a>
1,3,5-Trimethylbenzene	ND		0.00505	1.01	04/24/2024 12:05	<a href="#">WG2272727</a>
(S) Toluene-d8	108		75.0-131		04/24/2024 12:05	<a href="#">WG2272727</a>
(S) 4-Bromofluorobenzene	102		67.0-138		04/24/2024 12:05	<a href="#">WG2272727</a>
(S) 1,2-Dichloroethane-d4	93.8		70.0-130		04/24/2024 12:05	<a href="#">WG2272727</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	17.1		4.00	1	04/23/2024 11:56	<a href="#">WG2272138</a>
C28-C36 Motor Oil Range	33.7		4.00	1	04/23/2024 11:56	<a href="#">WG2272138</a>
(S) o-Terphenyl	45.0		18.0-148		04/23/2024 11:56	<a href="#">WG2272138</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Anthracene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Benzo(a)anthracene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Benzo(b)fluoranthene	0.0103		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Benzo(k)fluoranthene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Benzo(a)pyrene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Chrysene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Dibenz(a,h)anthracene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Fluoranthene	0.00761		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Fluorene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
1-Methylnaphthalene	ND		0.0200	1	04/23/2024 18:15	<a href="#">WG2271403</a>
2-Methylnaphthalene	ND		0.0200	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Naphthalene	ND		0.0200	1	04/23/2024 18:15	<a href="#">WG2271403</a>
Pyrene	ND		0.00600	1	04/23/2024 18:15	<a href="#">WG2271403</a>
(S) p-Terphenyl-d14	76.8		23.0-120		04/23/2024 18:15	<a href="#">WG2271403</a>
(S) Nitrobenzene-d5	88.1		14.0-149		04/23/2024 18:15	<a href="#">WG2271403</a>
(S) 2-Fluorobiphenyl	86.7		34.0-125		04/23/2024 18:15	<a href="#">WG2271403</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.434		1	04/22/2024 09:47	WG2271330

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/22/2024 13:01	<a href="#">WG2268647</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.27	<a href="#">T8</a>	1	04/19/2024 22:10	<a href="#">WG2270291</a>

Sample Narrative:  
L1727206-08 WG2270291: 8.27 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	419		10.0	1	04/21/2024 13:48	<a href="#">WG2270855</a>

Sample Narrative:  
L1727206-08 WG2270855: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.281		0.200	1	04/21/2024 16:38	<a href="#">WG2271332</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	13.2		1.00	5	04/23/2024 20:53	<a href="#">WG2270379</a>
Barium	1100		2.50	5	04/23/2024 20:53	<a href="#">WG2270379</a>
Cadmium	ND		1.00	5	04/23/2024 20:53	<a href="#">WG2270379</a>
Copper	26.6		5.00	5	04/23/2024 20:53	<a href="#">WG2270379</a>
Lead	13.8		2.00	5	04/23/2024 20:53	<a href="#">WG2270379</a>
Nickel	18.7		2.50	5	04/23/2024 20:53	<a href="#">WG2270379</a>
Selenium	ND		2.50	5	04/23/2024 20:53	<a href="#">WG2270379</a>
Silver	ND		0.500	5	04/23/2024 20:53	<a href="#">WG2270379</a>
Zinc	56.2		25.0	5	04/23/2024 20:53	<a href="#">WG2270379</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.135	<a href="#">B</a>	0.101	1.01	04/24/2024 02:25	<a href="#">WG2272910</a>
(S) a,a,a-Trifluorotoluene(FID)	91.1		77.0-120		04/24/2024 02:25	<a href="#">WG2272910</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00138		0.00100	1	04/24/2024 12:24	<a href="#">WG2272727</a>
Toluene	0.00860		0.00500	1	04/24/2024 12:24	<a href="#">WG2272727</a>
Ethylbenzene	ND		0.00250	1	04/24/2024 12:24	<a href="#">WG2272727</a>
Xylenes, Total	0.0141		0.00650	1	04/24/2024 12:24	<a href="#">WG2272727</a>
1,2,4-Trimethylbenzene	ND		0.00500	1	04/24/2024 12:24	<a href="#">WG2272727</a>
1,3,5-Trimethylbenzene	0.0232		0.00500	1	04/24/2024 12:24	<a href="#">WG2272727</a>
(S) Toluene-d8	108		75.0-131		04/24/2024 12:24	<a href="#">WG2272727</a>
(S) 4-Bromofluorobenzene	102		67.0-138		04/24/2024 12:24	<a href="#">WG2272727</a>
(S) 1,2-Dichloroethane-d4	88.4		70.0-130		04/24/2024 12:24	<a href="#">WG2272727</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	23.1		4.00	1	04/23/2024 12:09	<a href="#">WG2272138</a>
C28-C36 Motor Oil Range	40.7		4.00	1	04/23/2024 12:09	<a href="#">WG2272138</a>
(S) o-Terphenyl	51.1		18.0-148		04/23/2024 12:09	<a href="#">WG2272138</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Anthracene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Benzo(a)anthracene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Benzo(b)fluoranthene	0.0148		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Benzo(k)fluoranthene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Benzo(a)pyrene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Chrysene	0.00741		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Dibenz(a,h)anthracene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Fluoranthene	0.00987		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Fluorene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
1-Methylnaphthalene	ND		0.0200	1	04/23/2024 18:33	<a href="#">WG2271403</a>
2-Methylnaphthalene	ND		0.0200	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Naphthalene	ND		0.0200	1	04/23/2024 18:33	<a href="#">WG2271403</a>
Pyrene	ND		0.00600	1	04/23/2024 18:33	<a href="#">WG2271403</a>
(S) p-Terphenyl-d14	75.3		23.0-120		04/23/2024 18:33	<a href="#">WG2271403</a>
(S) Nitrobenzene-d5	81.4		14.0-149		04/23/2024 18:33	<a href="#">WG2271403</a>
(S) 2-Fluorobiphenyl	81.4		34.0-125		04/23/2024 18:33	<a href="#">WG2271403</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.639		1	04/22/2024 09:51	WG2271330

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/22/2024 13:26	<a href="#">WG2268647</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.31	<a href="#">T8</a>	1	04/19/2024 22:10	<a href="#">WG2270291</a>

Sample Narrative:

L1727206-09 WG2270291: 8.31 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	454		10.0	1	04/21/2024 13:48	<a href="#">WG2270855</a>

Sample Narrative:

L1727206-09 WG2270855: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.494		0.200	1	04/21/2024 16:40	<a href="#">WG2271332</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	13.3		1.00	5	04/23/2024 20:57	<a href="#">WG2270379</a>
Barium	973		2.50	5	04/23/2024 20:57	<a href="#">WG2270379</a>
Cadmium	ND		1.00	5	04/23/2024 20:57	<a href="#">WG2270379</a>
Copper	22.9		5.00	5	04/23/2024 20:57	<a href="#">WG2270379</a>
Lead	13.2		2.00	5	04/23/2024 20:57	<a href="#">WG2270379</a>
Nickel	16.7		2.50	5	04/23/2024 20:57	<a href="#">WG2270379</a>
Selenium	ND		2.50	5	04/23/2024 20:57	<a href="#">WG2270379</a>
Silver	ND		0.500	5	04/23/2024 20:57	<a href="#">WG2270379</a>
Zinc	53.1		25.0	5	04/23/2024 20:57	<a href="#">WG2270379</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.148	<a href="#">B</a>	0.100	1	04/24/2024 02:48	<a href="#">WG2272910</a>
(S) a,a,a-Trifluorotoluene(FID)	91.0		77.0-120		04/24/2024 02:48	<a href="#">WG2272910</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00101	1.01	04/24/2024 12:44	<a href="#">WG2272727</a>
Toluene	ND		0.00505	1.01	04/24/2024 12:44	<a href="#">WG2272727</a>
Ethylbenzene	ND		0.00253	1.01	04/24/2024 12:44	<a href="#">WG2272727</a>
Xylenes, Total	ND		0.00656	1.01	04/24/2024 12:44	<a href="#">WG2272727</a>
1,2,4-Trimethylbenzene	ND		0.00505	1.01	04/24/2024 12:44	<a href="#">WG2272727</a>
1,3,5-Trimethylbenzene	ND		0.00505	1.01	04/24/2024 12:44	<a href="#">WG2272727</a>
(S) Toluene-d8	108		75.0-131		04/24/2024 12:44	<a href="#">WG2272727</a>
(S) 4-Bromofluorobenzene	101		67.0-138		04/24/2024 12:44	<a href="#">WG2272727</a>
(S) 1,2-Dichloroethane-d4	95.9		70.0-130		04/24/2024 12:44	<a href="#">WG2272727</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	29.1		4.00	1	04/23/2024 12:35	<a href="#">WG2272138</a>
C28-C36 Motor Oil Range	52.8		4.00	1	04/23/2024 12:35	<a href="#">WG2272138</a>
(S) o-Terphenyl	42.2		18.0-148		04/23/2024 12:35	<a href="#">WG2272138</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Anthracene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Benzo(a)anthracene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Benzo(b)fluoranthene	0.0116		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Benzo(k)fluoranthene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Benzo(a)pyrene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Chrysene	0.00634		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Dibenz(a,h)anthracene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Fluoranthene	0.00740		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Fluorene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
1-Methylnaphthalene	ND		0.0200	1	04/23/2024 19:26	<a href="#">WG2272029</a>
2-Methylnaphthalene	ND		0.0200	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Naphthalene	ND		0.0200	1	04/23/2024 19:26	<a href="#">WG2272029</a>
Pyrene	ND		0.00600	1	04/23/2024 19:26	<a href="#">WG2272029</a>
(S) p-Terphenyl-d14	108		23.0-120		04/23/2024 19:26	<a href="#">WG2272029</a>
(S) Nitrobenzene-d5	119		14.0-149		04/23/2024 19:26	<a href="#">WG2272029</a>
(S) 2-Fluorobiphenyl	119		34.0-125		04/23/2024 19:26	<a href="#">WG2272029</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4060490-1 04/22/24 09:35

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

L1727206-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-08 04/22/24 13:01 • (DUP) R4060490-9 04/22/24 13:20

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	ND	ND	1	8.40		20

L1725676-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1725676-01 04/22/24 09:56 • (DUP) R4060490-3 04/22/24 10:02

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

Laboratory Control Sample (LCS)

(LCS) R4060490-2 04/22/24 09:43

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	10.0	100	80.0-120	

L1726938-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1726938-08 04/22/24 11:35 • (MS) R4060490-5 04/22/24 11:41 • (MSD) R4060490-6 04/22/24 11:47

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	ND	18.2	19.2	91.1	96.2	1	75.0-125			5.42	20

L1726938-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1726938-08 04/22/24 11:35 • (MS) R4060490-7 04/22/24 12:06

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	641	ND	677	106	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1726938-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1726938-06 04/19/24 22:10 • (DUP) R4060028-2 04/19/24 22:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.80	7.81	1	0.128		1

Sample Narrative:

OS: 7.8 at 20.1C

DUP: 7.81 at 20.5C

L1727206-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-06 04/19/24 22:10 • (DUP) R4060028-3 04/19/24 22:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	pH	su		%		%
pH	8.33	8.33	1	0.000		1

Sample Narrative:

OS: 8.33 at 20.4C

DUP: 8.33 at 20.4C

Laboratory Control Sample (LCS)

(LCS) R4060028-1 04/19/24 22:10

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 20.4C

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R4060209-1 04/21/24 13:48

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

L1727196-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1727196-07 04/21/24 13:48 • (DUP) R4060209-3 04/21/24 13:48

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	8550	8360	1	2.25		20

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

L1727206-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-08 04/21/24 13:48 • (DUP) R4060209-4 04/21/24 13:48

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	419	417	1	0.478		20

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

Laboratory Control Sample (LCS)

(LCS) R4060209-2 04/21/24 13:48

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

Sample Narrative:  
LCS: at 25C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4060569-1 04/21/24 15:59

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

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

(LCS) R4060569-2 04/21/24 16:01 • (LCSD) R4060569-3 04/21/24 16:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.06	1.06	106	106	80.0-120			0.0866	20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4061511-1 04/24/24 12:52

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) R4061511-2 04/24/24 12:53 • (LCSD) R4061511-3 04/24/24 12:55

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	1.12	1.14	112	114	80.0-120			1.57	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R4061194-1 04/23/24 19:29

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) R4061194-2 04/23/24 19:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	90.9	90.9	80.0-120	
Barium	100	89.9	89.9	80.0-120	
Cadmium	100	90.3	90.3	80.0-120	
Copper	100	90.9	90.9	80.0-120	
Lead	100	87.4	87.4	80.0-120	
Nickel	100	93.7	93.7	80.0-120	
Selenium	100	90.6	90.6	80.0-120	
Silver	20.0	18.0	90.2	80.0-120	
Zinc	100	86.4	86.4	80.0-120	

L1727016-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727016-06 04/23/24 19:36 • (MS) R4061194-5 04/23/24 19:46 • (MSD) R4061194-6 04/23/24 19:49

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	2.32	83.2	82.1	80.8	79.8	5	75.0-125			1.30	20
Barium	100	108	203	236	94.5	128	5	75.0-125		J5	15.1	20
Cadmium	100	ND	96.6	100	96.6	100	5	75.0-125			3.55	20
Copper	100	11.8	104	110	91.9	98.3	5	75.0-125			5.94	20
Lead	100	13.2	104	111	90.8	97.7	5	75.0-125			6.42	20
Nickel	100	12.0	94.4	94.4	82.3	82.4	5	75.0-125			0.0446	20
Selenium	100	ND	100	102	99.2	100	5	75.0-125			1.26	20
Silver	20.0	ND	19.8	19.7	99.2	98.4	5	75.0-125			0.822	20
Zinc	100	43.7	117	119	73.3	75.3	5	75.0-125	J6		1.69	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4061451-3 04/23/24 21:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0444	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	96.2			77.0-120

Laboratory Control Sample (LCS)

(LCS) R4061451-2 04/23/24 20:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	5.14	103	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			118	77.0-120	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R4061842-2 04/24/24 10:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	108			75.0-131
(S) 4-Bromofluorobenzene	97.5			67.0-138
(S) 1,2-Dichloroethane-d4	96.3			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4061842-1 04/24/24 09:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.120	96.0	70.0-123	
Toluene	0.125	0.120	96.0	75.0-121	
Ethylbenzene	0.125	0.128	102	74.0-126	
Xylenes, Total	0.375	0.366	97.6	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.103	82.4	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.0996	79.7	73.0-127	
(S) Toluene-d8			104	75.0-131	
(S) 4-Bromofluorobenzene			98.3	67.0-138	
(S) 1,2-Dichloroethane-d4			99.7	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4061179-1 04/23/24 11:19

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	54.8			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4061179-2 04/23/24 11:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	39.5	79.0	50.0-150	
(S) o-Terphenyl			58.0	18.0-148	

L1727255-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727255-01 04/23/24 15:09 • (MS) R4061179-3 04/23/24 15:23 • (MSD) R4061179-4 04/23/24 15:35

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	47.1	ND	41.5	44.1	79.7	84.8	1	50.0-150			6.07	20
(S) o-Terphenyl					53.0	54.9		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4061570-2 04/23/24 12:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	83.5			23.0-120
(S) Nitrobenzene-d5	86.2			14.0-149
(S) 2-Fluorobiphenyl	84.3			34.0-125

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4061570-1 04/23/24 11:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0609	76.1	50.0-120	
Anthracene	0.0800	0.0693	86.6	50.0-126	
Benzo(a)anthracene	0.0800	0.0703	87.9	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0557	69.6	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0514	64.3	49.0-125	
Benzo(a)pyrene	0.0800	0.0542	67.8	42.0-120	
Chrysene	0.0800	0.0688	86.0	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0547	68.4	47.0-125	
Fluoranthene	0.0800	0.0746	93.3	49.0-129	
Fluorene	0.0800	0.0781	97.6	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0534	66.8	46.0-125	
1-Methylnaphthalene	0.0800	0.0699	87.4	51.0-121	
2-Methylnaphthalene	0.0800	0.0690	86.3	50.0-120	
Naphthalene	0.0800	0.0660	82.5	50.0-120	
Pyrene	0.0800	0.0672	84.0	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4061570-1 04/23/24 11:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			89.1	23.0-120	
(S) Nitrobenzene-d5			95.1	14.0-149	
(S) 2-Fluorobiphenyl			88.2	34.0-125	

L1726235-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1726235-07 04/23/24 12:35 • (MS) R4061570-3 04/23/24 12:52 • (MSD) R4061570-4 04/23/24 13:10

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0788	ND	0.0436	0.0508	55.3	64.5	1	14.0-127			15.3	27
Anthracene	0.0788	ND	0.0530	0.0553	67.3	70.2	1	10.0-145			4.25	30
Benzo(a)anthracene	0.0788	ND	0.0570	0.0573	72.3	72.7	1	10.0-139			0.525	30
Benzo(b)fluoranthene	0.0788	ND	0.0432	0.0475	54.8	60.3	1	10.0-140			9.48	36
Benzo(k)fluoranthene	0.0788	ND	0.0408	0.0462	51.8	58.6	1	10.0-137			12.4	31
Benzo(a)pyrene	0.0788	ND	0.0471	0.0470	59.8	59.6	1	10.0-141			0.213	31
Chrysene	0.0788	ND	0.0548	0.0567	69.5	72.0	1	10.0-145			3.41	30
Dibenz(a,h)anthracene	0.0788	ND	0.0529	0.0509	67.1	64.6	1	10.0-132			3.85	31
Fluoranthene	0.0788	ND	0.0580	0.0569	73.6	72.2	1	10.0-153			1.91	33
Fluorene	0.0788	ND	0.0505	0.0611	64.1	77.5	1	11.0-130			19.0	29
Indeno(1,2,3-cd)pyrene	0.0788	ND	0.0510	0.0488	64.7	61.9	1	10.0-137			4.41	32
1-Methylnaphthalene	0.0788	ND	0.0576	0.0603	73.1	76.5	1	10.0-142			4.58	28
2-Methylnaphthalene	0.0788	ND	0.0555	0.0590	70.4	74.9	1	10.0-137			6.11	28
Naphthalene	0.0788	ND	0.0563	0.0590	71.4	74.9	1	10.0-135			4.68	27
Pyrene	0.0788	ND	0.0529	0.0509	67.1	64.6	1	10.0-148			3.85	35
(S) p-Terphenyl-d14					73.7	66.5		23.0-120				
(S) Nitrobenzene-d5					83.3	83.9		14.0-149				
(S) 2-Fluorobiphenyl					67.4	81.0		34.0-125				

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R4061565-2 04/23/24 11:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	116			23.0-120
(S) Nitrobenzene-d5	65.5			14.0-149
(S) 2-Fluorobiphenyl	102			34.0-125

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4061565-1 04/23/24 11:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0690	86.3	50.0-120	
Anthracene	0.0800	0.0736	92.0	50.0-126	
Benzo(a)anthracene	0.0800	0.0728	91.0	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0842	105	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0800	100	49.0-125	
Benzo(a)pyrene	0.0800	0.0692	86.5	42.0-120	
Chrysene	0.0800	0.0817	102	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0862	108	47.0-125	
Fluoranthene	0.0800	0.0867	108	49.0-129	
Fluorene	0.0800	0.0770	96.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0800	100	46.0-125	
1-Methylnaphthalene	0.0800	0.0801	100	51.0-121	
2-Methylnaphthalene	0.0800	0.0794	99.3	50.0-120	
Naphthalene	0.0800	0.0696	87.0	50.0-120	
Pyrene	0.0800	0.0737	92.1	43.0-123	



Laboratory Control Sample (LCS)

(LCS) R4061565-1 04/23/24 11:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
(S) p-Terphenyl-d14			117	23.0-120	
(S) Nitrobenzene-d5			68.5	14.0-149	
(S) 2-Fluorobiphenyl			109	34.0-125	

L1727256-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727256-01 04/23/24 21:49 • (MS) R4061571-1 04/23/24 22:07 • (MSD) R4061571-2 04/23/24 22:25

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acenaphthene	0.0780	ND	0.0690	0.0748	88.5	93.5	1	14.0-127			8.07	27
Anthracene	0.0780	ND	0.0764	0.0849	97.9	106	1	10.0-145			10.5	30
Benzo(a)anthracene	0.0780	ND	0.0841	0.0904	108	113	1	10.0-139			7.22	30
Benzo(b)fluoranthene	0.0780	ND	0.0665	0.0686	82.7	83.3	1	10.0-140			3.11	36
Benzo(k)fluoranthene	0.0780	ND	0.0584	0.0646	74.9	80.7	1	10.0-137			10.1	31
Benzo(a)pyrene	0.0780	ND	0.0679	0.0723	87.1	90.4	1	10.0-141			6.28	31
Chrysene	0.0780	ND	0.0823	0.0866	106	108	1	10.0-145			5.09	30
Dibenz(a,h)anthracene	0.0780	ND	0.0683	0.0737	87.6	92.1	1	10.0-132			7.61	31
Fluoranthene	0.0780	ND	0.0863	0.0928	111	116	1	10.0-153			7.26	33
Fluorene	0.0780	ND	0.0829	0.0918	106	115	1	11.0-130			10.2	29
Indeno(1,2,3-cd)pyrene	0.0780	ND	0.0695	0.0744	89.1	93.0	1	10.0-137			6.81	32
1-Methylnaphthalene	0.0780	ND	0.0809	0.0868	104	109	1	10.0-142			7.04	28
2-Methylnaphthalene	0.0780	ND	0.0797	0.0851	102	106	1	10.0-137			6.55	28
Naphthalene	0.0780	ND	0.0733	0.0783	94.0	97.9	1	10.0-135			6.60	27
Pyrene	0.0780	ND	0.0708	0.0754	90.8	94.3	1	10.0-148			6.29	35
(S) p-Terphenyl-d14					172	180		23.0-120	J1	J1		
(S) Nitrobenzene-d5					202	218		14.0-149	J1	J1		
(S) 2-Fluorobiphenyl					194	204		34.0-125	J1	J1		

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

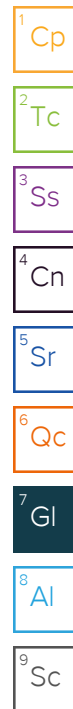
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

## Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1 6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1 4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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





Company Name / Address: <b>Caerus Oil &amp; Gas</b> 143 Diamond Ave Parachute, CO 81635						Billing Information: <b>Accounts Payable</b> 1001 17th Street, Suite 1600 Denver, CO 80202					
Report to: <b>Jake J/Brett M/Blair R/Andy V</b>						Email To: <b>labreports@caerusoilandgas.com</b>					
Project Description: <b>H26 596 FLOWLINE (OGA)</b>						City/State Collected:			Please Circle: PT MT CT ET		
Phone: <b>970-285-2653</b>			Client Project #			Lab Project # <b>CAERUSPCO-915</b>					
Collected by (print): <b>Meredith Roberts/Garrett Green</b>			Site/Facility ID #			P.O. #					
Collected by (signature): <b>[Signature]</b>			Rush? (Lab MUST Be Notified) Same Day Five Day Next Day 5 Day (Rad Only) Two Day 10 Day (Rad Only) Three Day			Quote #					
Immediately Packed on Ice N Y			Standard TAT			Date Results Needed			No. of Cntrs		
Sample ID		Comp/Grab	Matrix*	Depth	Date	Time					
20240417-NPRBG-(H26-SF) @ 1		G	SS	1	4/17/24	1250	A	X	X		
20240417-NPRBG-(H26-SW) @ 1		G	SS	1	4/17/24	1300	A	X	X		
20240417-NPRBG-(H26-N) @ 1		G	SS	1	4/17/24	1310	A	X	X		
Analysis / Container / Preservative											
Chain of Custody Page 1 of 2											
PEOPLE ADVANCING SCIENCE											
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf											
SDG # D153											
Acctnum:											
Template:											
Prelogin:											
PM:											
PB:											
Shipped Via:											
Remarks Sample # (lab only)											
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											
Trip Blank Received: Yes No HCL / MeOH TBR											
Temp 18.1°C Bottles Received: 36											
Hold: Condition: NCF OK											

Company Name/Address:  
**Caerus Oil & Gas**  
**143 Diamond Ave**  
**Parachute, CO 81635**

Billing Information:  
**Accounts Payable**  
**1001 17th Street, Suite 1600**  
**Denver, CO 80202**

Report to:  
**Jake J/Brett M/Blair R/Andy V**

Email To:  
**labreports@caerusoilandgas.com**

Project Description:  
**H26 596 FLOWLINE (06A)**

City/State Collected:  
**PT MT CT ET**

Please Circle:  
**PT MT CT ET**

Phone: **970-285-2653**

Client Project #

Lab Project #  
**CAERUSPCO-915**

Collected by (print):  
**Meredith Roberts/Garrett Green**

Site/Facility ID #

P.O. #

Collected by (signature):  
*[Signature]*

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

Quote #

Immediately  
Packed on Ice N Y

Date Results Needed  
**Standard TAT**

No. of Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
<b>20240417-H26-(STOCK01)</b>	<b>C</b>	<b>SS</b>	<b>-</b>	<b>4/17/24</b>	<b>1150</b>	<b>4</b>
<i>[Large diagonal line across the table]</i>						

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

Remarks:  
  
  
Samples returned via:  
UPS FedEx Courier

Tracking # **6426 8306 5893**

Received by: (Signature)  
*[Signature]*

Trip Blank Received: Yes/No  
**5**

Temp: **PPA 6°C**  
**1.8+0.1=1.9**

Bottles Received: **36**

Hold:

Condition: **NCF / OK**

Relinquished by: (Signature)  
*[Signature]*

Date: **4/17/24**

Time: **1520**

Received by: (Signature)  
*[Signature]*

Date: **4/18/24**

Time: **900**

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

Chain of Custody

Page 2 of 3

**Pace**  
PEOPLE ADVANCING SCIENCE  
12065 Lebanon Rd Mount Juliet, TN 37122  
Phone: 615-758-5858 Alt: 800-767-5859  
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

SDG # **1727200**

Table # **DIS3**

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipping Via:

Remarks

Sample # (lab only)  
**-09**



[illegible]

## Caerus Oil and Gas

Sample Delivery Group: L1727206  
Samples Received: 04/18/2024  
Project Number:  
Description: H26 596 Flowline (06A)

Report To: Jake J. / Brett M. / Blair R. / Andy V.  
143 Diamond Avenue  
Parachute, CO 81635

Entire Report Reviewed By:



Tony Gibson  
Project Manager

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

### Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)



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<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

# SAMPLE SUMMARY

20240417-H26-(STOCK01) L1727206-04 Solid

Collected by  
MR / GG

Collected date/time  
04/17/24 11:50

Received date/time  
04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2271334	1	04/23/24 12:01	04/23/24 12:01	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2268647	1	04/19/24 11:53	04/22/24 12:37	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2270291	1	04/19/24 08:28	04/19/24 22:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2270855	1	04/19/24 19:14	04/21/24 13:48	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2271335	1	04/22/24 10:36	04/22/24 17:14	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2270379	5	04/20/24 13:57	04/23/24 20:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2272910	1	04/22/24 20:59	04/24/24 00:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2272727	1.01	04/22/24 20:59	04/24/24 11:08	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2272138	1	04/23/24 06:08	04/23/24 11:44	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2271403	1	04/23/24 05:55	04/23/24 17:21	ALM	Mt. Juliet, TN

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

# CASE NARRATIVE

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



Tony Gibson  
Project Manager

## Report Revision History

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Level II Report - Version 1: 04/25/24 15:39

Level II Report - Version 2: 04/29/24 12:05

## Project Narrative

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Split report into three versions per chain of custody - Tony Gibson 4/29/24



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.566		1	04/23/2024 12:01	WG2271334

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/22/2024 12:37	<a href="#">WG2268647</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.25	<a href="#">T8</a>	1	04/19/2024 22:10	<a href="#">WG2270291</a>

Sample Narrative:

L1727206-04 WG2270291: 8.25 at 20.1C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	348		10.0	1	04/21/2024 13:48	<a href="#">WG2270855</a>

Sample Narrative:

L1727206-04 WG2270855: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.658		0.200	1	04/22/2024 17:14	<a href="#">WG2271335</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	17.7		1.00	5	04/23/2024 20:32	<a href="#">WG2270379</a>
Barium	1070		2.50	5	04/23/2024 20:32	<a href="#">WG2270379</a>
Cadmium	ND		1.00	5	04/23/2024 20:32	<a href="#">WG2270379</a>
Copper	29.4		5.00	5	04/23/2024 20:32	<a href="#">WG2270379</a>
Lead	16.5		2.00	5	04/23/2024 20:32	<a href="#">WG2270379</a>
Nickel	19.8		2.50	5	04/23/2024 20:32	<a href="#">WG2270379</a>
Selenium	ND		2.50	5	04/23/2024 20:32	<a href="#">WG2270379</a>
Silver	ND		0.500	5	04/23/2024 20:32	<a href="#">WG2270379</a>
Zinc	58.1		25.0	5	04/23/2024 20:32	<a href="#">WG2270379</a>

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.104	<a href="#">B</a>	0.100	1	04/24/2024 00:54	<a href="#">WG2272910</a>
(S) a,a,a-Trifluorotoluene(FID)	91.7		77.0-120		04/24/2024 00:54	<a href="#">WG2272910</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00101	1.01	04/24/2024 11:08	<a href="#">WG2272727</a>
Toluene	ND		0.00505	1.01	04/24/2024 11:08	<a href="#">WG2272727</a>
Ethylbenzene	ND		0.00253	1.01	04/24/2024 11:08	<a href="#">WG2272727</a>
Xylenes, Total	ND		0.00656	1.01	04/24/2024 11:08	<a href="#">WG2272727</a>
1,2,4-Trimethylbenzene	ND		0.00505	1.01	04/24/2024 11:08	<a href="#">WG2272727</a>
1,3,5-Trimethylbenzene	ND		0.00505	1.01	04/24/2024 11:08	<a href="#">WG2272727</a>
(S) Toluene-d8	106		75.0-131		04/24/2024 11:08	<a href="#">WG2272727</a>
(S) 4-Bromofluorobenzene	101		67.0-138		04/24/2024 11:08	<a href="#">WG2272727</a>
(S) 1,2-Dichloroethane-d4	91.8		70.0-130		04/24/2024 11:08	<a href="#">WG2272727</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	24.4		4.00	1	04/23/2024 11:44	<a href="#">WG2272138</a>
C28-C36 Motor Oil Range	36.6		4.00	1	04/23/2024 11:44	<a href="#">WG2272138</a>
(S) o-Terphenyl	44.2		18.0-148		04/23/2024 11:44	<a href="#">WG2272138</a>

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Anthracene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Benzo(a)anthracene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Benzo(b)fluoranthene	0.00849		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Benzo(k)fluoranthene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Benzo(a)pyrene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Chrysene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Dibenz(a,h)anthracene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Fluoranthene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Fluorene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
1-Methylnaphthalene	ND		0.0200	1	04/23/2024 17:21	<a href="#">WG2271403</a>
2-Methylnaphthalene	ND		0.0200	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Naphthalene	ND		0.0200	1	04/23/2024 17:21	<a href="#">WG2271403</a>
Pyrene	ND		0.00600	1	04/23/2024 17:21	<a href="#">WG2271403</a>
(S) p-Terphenyl-d14	76.9		23.0-120		04/23/2024 17:21	<a href="#">WG2271403</a>
(S) Nitrobenzene-d5	80.3		14.0-149		04/23/2024 17:21	<a href="#">WG2271403</a>
(S) 2-Fluorobiphenyl	80.3		34.0-125		04/23/2024 17:21	<a href="#">WG2271403</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4060490-1 04/22/24 09:35

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

L1727206-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-08 04/22/24 13:01 • (DUP) R4060490-9 04/22/24 13:20

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	ND	ND	1	8.40		20

L1725676-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1725676-01 04/22/24 09:56 • (DUP) R4060490-3 04/22/24 10:02

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

Laboratory Control Sample (LCS)

(LCS) R4060490-2 04/22/24 09:43

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	10.0	100	80.0-120	

L1726938-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1726938-08 04/22/24 11:35 • (MS) R4060490-5 04/22/24 11:41 • (MSD) R4060490-6 04/22/24 11:47

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	ND	18.2	19.2	91.1	96.2	1	75.0-125			5.42	20

L1726938-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1726938-08 04/22/24 11:35 • (MS) R4060490-7 04/22/24 12:06

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	641	ND	677	106	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1726938-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1726938-06 04/19/24 22:10 • (DUP) R4060028-2 04/19/24 22:10

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.80	7.81	1	0.128		1

Sample Narrative:

OS: 7.8 at 20.1C

DUP: 7.81 at 20.5C

L1727206-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-06 04/19/24 22:10 • (DUP) R4060028-3 04/19/24 22:10

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	pH	su		%		%
pH	8.33	8.33	1	0.000		1

Sample Narrative:

OS: 8.33 at 20.4C

DUP: 8.33 at 20.4C

Laboratory Control Sample (LCS)

(LCS) R4060028-1 04/19/24 22:10

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 20.4C

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4060209-1 04/21/24 13:48

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

L1727196-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1727196-07 04/21/24 13:48 • (DUP) R4060209-3 04/21/24 13:48

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	8550	8360	1	2.25		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1727206-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-08 04/21/24 13:48 • (DUP) R4060209-4 04/21/24 13:48

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	419	417	1	0.478		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4060209-2 04/21/24 13:48

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

Sample Narrative:

LCS: at 25C

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



Method Blank (MB)

(MB) R4060665-4 04/22/24 19:09

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) R4060665-2 04/22/24 17:00 • (LCSD) R4060665-3 04/22/24 17:03

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	1.14	1.15	114	115	80.0-120			1.32	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R4061194-1 04/23/24 19:29

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) R4061194-2 04/23/24 19:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	90.9	90.9	80.0-120	
Barium	100	89.9	89.9	80.0-120	
Cadmium	100	90.3	90.3	80.0-120	
Copper	100	90.9	90.9	80.0-120	
Lead	100	87.4	87.4	80.0-120	
Nickel	100	93.7	93.7	80.0-120	
Selenium	100	90.6	90.6	80.0-120	
Silver	20.0	18.0	90.2	80.0-120	
Zinc	100	86.4	86.4	80.0-120	

L1727016-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727016-06 04/23/24 19:36 • (MS) R4061194-5 04/23/24 19:46 • (MSD) R4061194-6 04/23/24 19:49

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	2.32	83.2	82.1	80.8	79.8	5	75.0-125			1.30	20
Barium	100	108	203	236	94.5	128	5	75.0-125		J5	15.1	20
Cadmium	100	ND	96.6	100	96.6	100	5	75.0-125			3.55	20
Copper	100	11.8	104	110	91.9	98.3	5	75.0-125			5.94	20
Lead	100	13.2	104	111	90.8	97.7	5	75.0-125			6.42	20
Nickel	100	12.0	94.4	94.4	82.3	82.4	5	75.0-125			0.0446	20
Selenium	100	ND	100	102	99.2	100	5	75.0-125			1.26	20
Silver	20.0	ND	19.8	19.7	99.2	98.4	5	75.0-125			0.822	20
Zinc	100	43.7	117	119	73.3	75.3	5	75.0-125	J6		1.69	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4061451-3 04/23/24 21:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0444	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	96.2			77.0-120

Laboratory Control Sample (LCS)

(LCS) R4061451-2 04/23/24 20:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	5.14	103	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			118	77.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4061842-2 04/24/24 10:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	108			75.0-131
(S) 4-Bromofluorobenzene	97.5			67.0-138
(S) 1,2-Dichloroethane-d4	96.3			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4061842-1 04/24/24 09:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.120	96.0	70.0-123	
Toluene	0.125	0.120	96.0	75.0-121	
Ethylbenzene	0.125	0.128	102	74.0-126	
Xylenes, Total	0.375	0.366	97.6	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.103	82.4	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.0996	79.7	73.0-127	
(S) Toluene-d8			104	75.0-131	
(S) 4-Bromofluorobenzene			98.3	67.0-138	
(S) 1,2-Dichloroethane-d4			99.7	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R4061179-1 04/23/24 11:19

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	54.8			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4061179-2 04/23/24 11:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	39.5	79.0	50.0-150	
(S) o-Terphenyl			58.0	18.0-148	

L1727255-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727255-01 04/23/24 15:09 • (MS) R4061179-3 04/23/24 15:23 • (MSD) R4061179-4 04/23/24 15:35

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	47.1	ND	41.5	44.1	79.7	84.8	1	50.0-150			6.07	20
(S) o-Terphenyl					53.0	54.9		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4061570-2 04/23/24 12:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	83.5			23.0-120
(S) Nitrobenzene-d5	86.2			14.0-149
(S) 2-Fluorobiphenyl	84.3			34.0-125

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Laboratory Control Sample (LCS)

(LCS) R4061570-1 04/23/24 11:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0609	76.1	50.0-120	
Anthracene	0.0800	0.0693	86.6	50.0-126	
Benzo(a)anthracene	0.0800	0.0703	87.9	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0557	69.6	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0514	64.3	49.0-125	
Benzo(a)pyrene	0.0800	0.0542	67.8	42.0-120	
Chrysene	0.0800	0.0688	86.0	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0547	68.4	47.0-125	
Fluoranthene	0.0800	0.0746	93.3	49.0-129	
Fluorene	0.0800	0.0781	97.6	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0534	66.8	46.0-125	
1-Methylnaphthalene	0.0800	0.0699	87.4	51.0-121	
2-Methylnaphthalene	0.0800	0.0690	86.3	50.0-120	
Naphthalene	0.0800	0.0660	82.5	50.0-120	
Pyrene	0.0800	0.0672	84.0	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4061570-1 04/23/24 11:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			89.1	23.0-120	
(S) Nitrobenzene-d5			95.1	14.0-149	
(S) 2-Fluorobiphenyl			88.2	34.0-125	

L1726235-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1726235-07 04/23/24 12:35 • (MS) R4061570-3 04/23/24 12:52 • (MSD) R4061570-4 04/23/24 13:10

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0788	ND	0.0436	0.0508	55.3	64.5	1	14.0-127			15.3	27
Anthracene	0.0788	ND	0.0530	0.0553	67.3	70.2	1	10.0-145			4.25	30
Benzo(a)anthracene	0.0788	ND	0.0570	0.0573	72.3	72.7	1	10.0-139			0.525	30
Benzo(b)fluoranthene	0.0788	ND	0.0432	0.0475	54.8	60.3	1	10.0-140			9.48	36
Benzo(k)fluoranthene	0.0788	ND	0.0408	0.0462	51.8	58.6	1	10.0-137			12.4	31
Benzo(a)pyrene	0.0788	ND	0.0471	0.0470	59.8	59.6	1	10.0-141			0.213	31
Chrysene	0.0788	ND	0.0548	0.0567	69.5	72.0	1	10.0-145			3.41	30
Dibenz(a,h)anthracene	0.0788	ND	0.0529	0.0509	67.1	64.6	1	10.0-132			3.85	31
Fluoranthene	0.0788	ND	0.0580	0.0569	73.6	72.2	1	10.0-153			1.91	33
Fluorene	0.0788	ND	0.0505	0.0611	64.1	77.5	1	11.0-130			19.0	29
Indeno(1,2,3-cd)pyrene	0.0788	ND	0.0510	0.0488	64.7	61.9	1	10.0-137			4.41	32
1-Methylnaphthalene	0.0788	ND	0.0576	0.0603	73.1	76.5	1	10.0-142			4.58	28
2-Methylnaphthalene	0.0788	ND	0.0555	0.0590	70.4	74.9	1	10.0-137			6.11	28
Naphthalene	0.0788	ND	0.0563	0.0590	71.4	74.9	1	10.0-135			4.68	27
Pyrene	0.0788	ND	0.0529	0.0509	67.1	64.6	1	10.0-148			3.85	35
(S) p-Terphenyl-d14					73.7	66.5		23.0-120				
(S) Nitrobenzene-d5					83.3	83.9		14.0-149				
(S) 2-Fluorobiphenyl					67.4	81.0		34.0-125				

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

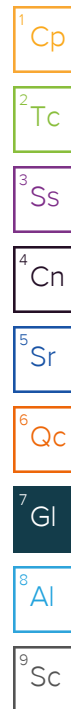
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

### Abbreviations and Definitions

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

### Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.





# ACCREDITATIONS & LOCATIONS

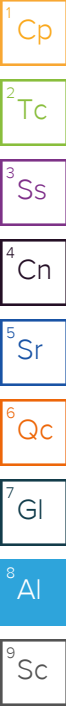
## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1 6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1 4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.



[illegible]





[illegible]

## Caerus Oil and Gas

Sample Delivery Group: L1727206  
Samples Received: 04/18/2024  
Project Number:  
Description: H26 596 Flowline (06A)

Report To: Jake J. / Brett M. / Blair R. / Andy V.  
143 Diamond Avenue  
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward  
Project Manager

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

### Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)



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Cn: Case Narrative	4	
Sr: Sample Results	5	<sup>3</sup> Ss
20240417-NPRBG-(H26-SW)@1 L1727206-02	5	<sup>4</sup> Cn
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Wet Chemistry by Method 9045D	7	
Wet Chemistry by Method 9050AMod	8	<sup>6</sup> Qc
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SAMPLE SUMMARY

20240417-NPRBG-(H26-SW)@1 L1727206-02 Solid

Collected by  
MR / GG

Collected date/time  
04/17/24 13:00

Received date/time  
04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2271330	1	04/22/24 09:42	04/22/24 09:42	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2268647	1	04/19/24 11:53	04/22/24 12:24	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2270291	1	04/19/24 08:28	04/19/24 22:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2270855	1	04/19/24 19:14	04/21/24 13:48	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2271332	1	04/21/24 08:09	04/21/24 16:30	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2270379	5	04/20/24 13:57	04/23/24 20:29	LD	Mt. Juliet, TN

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

# 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

## Report Revision History

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Level II Report - Version 1: 04/25/24 15:39  
Level II Report - Version 2: 04/29/24 12:05  
Level II Report - Version 3: 04/29/24 12:53  
Level II Report - Version 4: 04/29/24 13:16

## Project Narrative

---

Version A



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.0754		1	04/22/2024 09:42	WG2271330

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/22/2024 12:24	<a href="#">WG2268647</a>

Wet Chemistry by Method 9045D

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	7.65	<a href="#">T8</a>	1	04/19/2024 22:10	<a href="#">WG2270291</a>

Sample Narrative:  
L1727206-02 WG2270291: 7.65 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	301		10.0	1	04/21/2024 13:48	<a href="#">WG2270855</a>

Sample Narrative:  
L1727206-02 WG2270855: at 25C

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.200	1	04/21/2024 16:30	<a href="#">WG2271332</a>

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	12.5		1.00	5	04/23/2024 20:29	<a href="#">WG2270379</a>
Barium	262		2.50	5	04/23/2024 20:29	<a href="#">WG2270379</a>
Cadmium	ND		1.00	5	04/23/2024 20:29	<a href="#">WG2270379</a>
Copper	17.5		5.00	5	04/23/2024 20:29	<a href="#">WG2270379</a>
Lead	15.2		2.00	5	04/23/2024 20:29	<a href="#">WG2270379</a>
Nickel	17.0		2.50	5	04/23/2024 20:29	<a href="#">WG2270379</a>
Selenium	ND		2.50	5	04/23/2024 20:29	<a href="#">WG2270379</a>
Silver	ND		0.500	5	04/23/2024 20:29	<a href="#">WG2270379</a>
Zinc	52.6		25.0	5	04/23/2024 20:29	<a href="#">WG2270379</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R4060490-1 04/22/24 09:35

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

L1727206-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-08 04/22/24 13:01 • (DUP) R4060490-9 04/22/24 13:20

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	ND	ND	1	8.40		20

L1725676-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1725676-01 04/22/24 09:56 • (DUP) R4060490-3 04/22/24 10:02

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

Laboratory Control Sample (LCS)

(LCS) R4060490-2 04/22/24 09:43

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	10.0	100	80.0-120	

L1726938-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1726938-08 04/22/24 11:35 • (MS) R4060490-5 04/22/24 11:41 • (MSD) R4060490-6 04/22/24 11:47

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	ND	18.2	19.2	91.1	96.2	1	75.0-125			5.42	20

L1726938-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1726938-08 04/22/24 11:35 • (MS) R4060490-7 04/22/24 12:06

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	641	ND	677	106	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1726938-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1726938-06 04/19/24 22:10 • (DUP) R4060028-2 04/19/24 22:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.80	7.81	1	0.128		1

Sample Narrative:

OS: 7.8 at 20.1C

DUP: 7.81 at 20.5C

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

L1727206-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-06 04/19/24 22:10 • (DUP) R4060028-3 04/19/24 22:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	pH	su		%		%
pH	8.33	8.33	1	0.000		1

Sample Narrative:

OS: 8.33 at 20.4C

DUP: 8.33 at 20.4C

Laboratory Control Sample (LCS)

(LCS) R4060028-1 04/19/24 22:10

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 20.4C

Method Blank (MB)

(MB) R4060209-1 04/21/24 13:48

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

L1727196-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1727196-07 04/21/24 13:48 • (DUP) R4060209-3 04/21/24 13:48

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	8550	8360	1	2.25		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1727206-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1727206-08 04/21/24 13:48 • (DUP) R4060209-4 04/21/24 13:48

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	419	417	1	0.478		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4060209-2 04/21/24 13:48

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

Sample Narrative:

LCS: at 25C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4060569-1 04/21/24 15:59

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) R4060569-2 04/21/24 16:01 • (LCSD) R4060569-3 04/21/24 16:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.06	1.06	106	106	80.0-120			0.0866	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4061194-1 04/23/24 19:29

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

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

Laboratory Control Sample (LCS)

(LCS) R4061194-2 04/23/24 19:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	90.9	90.9	80.0-120	
Barium	100	89.9	89.9	80.0-120	
Cadmium	100	90.3	90.3	80.0-120	
Copper	100	90.9	90.9	80.0-120	
Lead	100	87.4	87.4	80.0-120	
Nickel	100	93.7	93.7	80.0-120	
Selenium	100	90.6	90.6	80.0-120	
Silver	20.0	18.0	90.2	80.0-120	
Zinc	100	86.4	86.4	80.0-120	

7  
Gl

8  
Al

9  
Sc

L1727016-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727016-06 04/23/24 19:36 • (MS) R4061194-5 04/23/24 19:46 • (MSD) R4061194-6 04/23/24 19:49

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	2.32	83.2	82.1	80.8	79.8	5	75.0-125			1.30	20
Barium	100	108	203	236	94.5	128	5	75.0-125		J5	15.1	20
Cadmium	100	ND	96.6	100	96.6	100	5	75.0-125			3.55	20
Copper	100	11.8	104	110	91.9	98.3	5	75.0-125			5.94	20
Lead	100	13.2	104	111	90.8	97.7	5	75.0-125			6.42	20
Nickel	100	12.0	94.4	94.4	82.3	82.4	5	75.0-125			0.0446	20
Selenium	100	ND	100	102	99.2	100	5	75.0-125			1.26	20
Silver	20.0	ND	19.8	19.7	99.2	98.4	5	75.0-125			0.822	20
Zinc	100	43.7	117	119	73.3	75.3	5	75.0-125	J6		1.69	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.

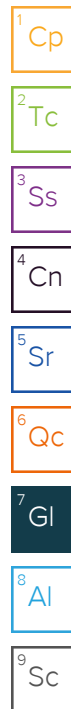
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

## Abbreviations and Definitions

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

## Qualifier Description

J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.



# ACCREDITATIONS & LOCATIONS

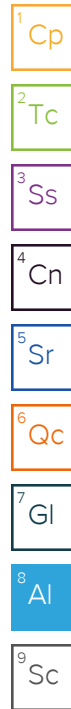
## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1 6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1 4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

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

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



Company Name/Address: <b>Caerus Oil &amp; Gas</b> 143 Diamond Ave Parachute, CO 81635						Billing Information: <b>Accounts Payable</b> 1001 17th Street, Suite 1600 Denver, CO 80202						Pres Chk			
Report to: <b>Jake J/Brett M/Blair R/Andy V</b>						Email To: <b>labreports@caerusoilandgas.com</b>									
Project Description: <b>H26 596 FLOWLINE (OGA)</b>						City/State Collected:			Please Circle: PT MT CT ET						
Phone: <b>970-285-2653</b>			Client Project #			Lab Project # <b>CAERUSPCO-915</b>									
Collected by (print): <b>Meredith Roberts/Garrett Green</b>			Site/Facility ID #			P.O. #									
Collected by (signature): <b>[Signature]</b>			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 <b>Standard TAT</b>			No. of Cntrs		
Sample ID		Comp/Grab	Matrix*	Depth	Date	Time									
20240417-NPRBG-(H26-SF) @ 1		G	SS	1	4/17/24	1250	A	X	X						
20240417-NPRBG-(H26-SW) @ 1		G	SS	1	4/17/24	1300	A	X	X						
20240417-NPRBG-(H26-N) @ 1		G	SS	1	4/17/24	1310	A	X	X						
Analysis / Container / Preservative															
Chain of Custody															
Page 1 of 2															
Pace PEOPLE ADVANCING SCIENCE															
12065 Lebanon Rd Mount Juliet, TN 37122															
Phone: 615-758-5858 Alt: 800-767-5859															
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf															
SDG # <b>D153</b>															
Acctnum:															
Template:															
Prelogin:															
PM:															
PB:															
Shipped Via:															
Remarks Sample # (lab only)															
-01															
-02															
-03															
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	
Relinquished by : (Signature)						Date:		Time:		Received by: (Signature)				Temp 18.1°C 36	
Relinquished by : (Signature)						Date:		Time:		Received for lab by: (Signature)				Date: 4/18/24 Time: 900	



Company Name/Address:  
**Caerus Oil & Gas**  
**143 Diamond Ave**  
**Parachute, CO 81635**

Billing Information:  
**Accounts Payable**  
**1001 17th Street, Suite 1600**  
**Denver, CO 80202**

Report to:  
**Jake J/Brett M/Blair R/Andy V**

Email To:  
**labreports@caerusoilandgas.com**

Project Description:  
**H26 596 FLOWLINE (06A)**

City/State Collected:  
**PT MT CT ET**

Please Circle:  
**PT MT CT ET**

Phone: **970-285-2653**

Client Project #

Lab Project #  
**CAERUSPCO-915**

Collected by (print):  
**Meredith Roberts/Garrett Green**

Site/Facility ID #

P.O. #

Collected by (signature):  
**[Signature]**

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

Quote #

Immediately  
Packed on Ice N Y

Date Results Needed  
**Standard TAT**

No. of Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
<b>20240417-H26-(STOCK01)</b>	<b>C</b>	<b>SS</b>	<b>-</b>	<b>4/17/24</b>	<b>1150</b>	<b>4</b>
<div>Remarks: Samples returned via: UPS FedEx Courier</div>						

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

Relinquished by : (Signature)  
**[Signature]**

Date:  
**4/17/24**

Time:  
**1520**

Received by: (Signature)  
**[Signature]**

Temp: **PPA 6°C**  
**1.8+0.1=1.9**

Bottles Received:  
**36**

Trip Blank Received: Yes / No  
**5**

Hold:

Condition:  
**NCF / OK**

Tracking #  
**6426 8306 5893**

Received for lab by: (Signature)  
**[Signature]**

Date:  
**4/18/24**

Time:  
**900**

Analysis / Container / Preservative

Chain of Custody  
**Pace**  
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12065 Lebanon Rd Mount Juliet, TN 37122  
Phone: 615-758-5858 Alt: 800-767-5859  
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SDG # **1727200**

Table # **DIS3**

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipping Via:

Remarks

Sample # (lab only)  
**-09**

Company Name/Address: <b>Caerus Oil &amp; Gas</b> 143 Diamond Ave Parachute, CO 81635						Billing Information: <b>Accounts Payable</b> 1001 17th Street, Suite 1600 Denver, CO 80202						Pres Chk	
Report to: <b>Jake J/Brett M/Blair R/Andy V</b>						Email To: <b>labreports@caerusoilandgas.com</b>							
Project Description: <b>H26 596 FLOWLINE (OWA)</b>						City/State Collected:				Please Circle: PT MT CT ET			
Phone: <b>970-285-2653</b>		Client Project #				Lab Project # <b>CAERUSPCO-915</b>				Full Table 915-1			
Collected by (print): <b>Meredith Roberts/Garrett Green</b>		Site/Facility ID #				P.O. #							
Collected by (signature): <b>[Signature]</b>		Rush? (Lab MUST Be Notified) ____ Same Day ____ Five Day ____ Next Day ____ 5 Day (Rad Only) ____ Two Day ____ 10 Day (Rad Only) ____ Three Day				Quote #							
Immediately Packed on Ice N ____ Y ____		Standard TAT				Date Results Needed							
Sample ID		Comp/Grab		Matrix*		Depth		Date		Time		No. of Cntrs	
20240417-H26-(POR)@6		G		SS		G		4/17/24		1125		A X	
20240417-H26-(NWQI)@4		G		SS		A		4/17/24		1130		A X	
20240417-H26-(WWQI)@4		G		SS		A		4/17/24		1135		A X	
20240417-H26-(SWQI)@4		G		SS		A		4/17/24		1140		A X	
20240417-H26-(EWQI)@4		G		SS		A		4/17/24		1145		A X	
Remarks: * Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other _____ Samples returned via: __ UPS __ FedEx __ Courier _____ Tracking # <b>6426 8306 5893</b>													
Relinquished by : (Signature) <b>[Signature]</b>				Date: <b>4/17/24</b>		Time: <b>1526</b>		Received by: (Signature) <b>[Signature]</b>				Trip Blank Received: Yes / No HCL/MeOH TBR	
Relinquished by : (Signature)				Date:		Time:		Received by: (Signature)				Temp: DPAV °C 1.9+0.1=1.9 Bottles Received: <b>36</b>	
Relinquished by : (Signature)				Date:		Time:		Received for lab by: (Signature) <b>[Signature]</b>				Date: Time: <b>4/18/24 900</b>	
Chain of Custody													
Pace PEOPLE ADVANCING SCIENCE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Alt: 800-767-5859 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf													
SDG # <b>1727206</b>													
Table # <b>0153</b>													
Acctnum:													
Template:													
Prelogin:													
PM:													
PB:													
Shipped Via:													
Remarks Sample # (lab only)													
-05													
-06													
-07													
-08													
-09													



## Caerus Oil and Gas

Sample Delivery Group: L1728561  
Samples Received: 04/23/2024  
Project Number:  
Description: H26 596 Flowline (06A)

Report To: Jake J. / Brett M. / Blair R. / Andy V.  
143 Diamond Avenue  
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward  
Project Manager

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



### Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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Cn: Case Narrative	4	
Sr: Sample Results	5	<div><div>3</div>Ss</div>
20240422-NPRSOURCE-(H26-19024) L1728561-01	5	
Qc: Quality Control Summary	6	<div><div>4</div>Cn</div>
Wet Chemistry by Method 7199	6	<div><div>5</div>Sr</div>
Wet Chemistry by Method 9040C	7	
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## SAMPLE SUMMARY

20240422-NPRSOURCE-(H26-19024) L1728561-01 GW

Collected by  
MR / GG

Collected date/time  
04/22/24 10:15

Received date/time  
04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG2273299	1	04/25/24 08:28	04/25/24 08:28	SET	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2273773	1	04/24/24 19:30	04/24/24 19:30	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2276125	1	04/28/24 14:06	04/29/24 13:14	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2276333	5	04/29/24 08:56	04/29/24 14:38	SJM	Mt. Juliet, TN

<sup>1</sup>Cp ${}^2\text{Tc}$  ${}^3S_s$  ${}^4\text{Cn}$  ${}^5\text{Sr}$  ${}^6\text{Qc}$  ${}^7\text{Gf}$  ${}^8\text{Al}$  ${}^9\text{Sc}$

# CASE NARRATIVE

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

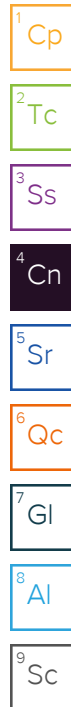


Chris Ward  
Project Manager

## Sample Delivery Group (SDG) Narrative

The following analysis were performed from an unpreserved, insufficiently or inadequately preserved sample.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1728561-01</a>	<a href="#">20240422-NPRSOURCE-(H26-19024)</a>	7199



Wet Chemistry by Method 7199

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND	T8	0.000500	1	04/25/2024 08:28	WG2273299

1  
Cp

2  
Tc

Wet Chemistry by Method 9040C

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	6.92	T8	1	04/24/2024 19:30	WG2273773

3  
Ss

4  
Cn

Sample Narrative:

L1728561-01 WG2273773: 6.92 at 18.4C

5  
Sr

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	5.76		0.200	1	04/29/2024 13:14	WG2276125

6  
Qc

7  
Gl

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND	J6 O1	0.0100	5	04/29/2024 14:38	WG2276333
Barium	40.8	O1 V	0.0100	5	04/29/2024 14:38	WG2276333
Cadmium	ND		0.00500	5	04/29/2024 14:38	WG2276333
Copper	ND	O1	0.0250	5	04/29/2024 14:38	WG2276333
Lead	ND		0.0100	5	04/29/2024 14:38	WG2276333
Nickel	ND	J6 O1	0.0100	5	04/29/2024 14:38	WG2276333
Selenium	ND		0.0100	5	04/29/2024 14:38	WG2276333
Silver	ND		0.0100	5	04/29/2024 14:38	WG2276333
Zinc	ND	J6 O1	0.125	5	04/29/2024 14:38	WG2276333

8  
Al

9  
Sc



Method Blank (MB)

(MB) R4062027-1 04/25/24 07:55

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Hexavalent Chromium	U		0.000150	0.000500

L1728639-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1728639-01 04/25/24 08:39 • (DUP) R4062027-3 04/25/24 08:50

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Hexavalent Chromium	ND	ND	1	1.59		20

L1728653-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1728653-02 04/25/24 09:22 • (DUP) R4062027-4 04/25/24 09:33

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Hexavalent Chromium	0.00704	0.00702	1	0.248		20

Laboratory Control Sample (LCS)

(LCS) R4062027-2 04/25/24 08:06

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Hexavalent Chromium	0.00200	0.00208	104	90.0-110	

L1728711-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1728711-01 04/25/24 10:06 • (MS) R4062027-5 04/25/24 10:17

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Hexavalent Chromium	0.0500	ND	0.0496	99.2	1	90.0-110	

L1728774-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1728774-01 04/25/24 11:01 • (MS) R4062027-6 04/25/24 11:12 • (MSD) R4062027-7 04/25/24 11:23

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Hexavalent Chromium	0.0500	ND	0.0508	0.0508	101	101	1	90.0-110			0.125	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1727463-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1727463-01 04/24/24 19:30 • (DUP) R4061735-2 04/24/24 19:30

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	6.43	6.40	1	0.468		1

Sample Narrative:

OS: 6.43 at 19C

DUP: 6.4 at 19.3C

L1728811-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1728811-01 04/24/24 19:30 • (DUP) R4061735-3 04/24/24 19:30

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.36	8.37	1	0.120		1

Sample Narrative:

OS: 8.36 at 19.2C

DUP: 8.37 at 19.2C

Laboratory Control Sample (LCS)

(LCS) R4061735-1 04/24/24 19:30

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 20.2C



Method Blank (MB)

(MB) R4063381-1 04/29/24 13:04

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Boron	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R4063381-2 04/29/24 13:05

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Boron	1.00	0.971	97.1	80.0-120	

L1730228-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1730228-02 04/29/24 13:07 • (MS) R4063381-4 04/29/24 13:10 • (MSD) R4063381-5 04/29/24 13:12

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Boron	1.00	0.436	1.39	1.41	95.2	97.0	1	75.0-125			1.32	20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4063407-1 04/29/24 13:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000180	0.00200
Barium	U		0.000381	0.00200
Cadmium	U		0.000150	0.00100
Copper	U		0.00151	0.00500
Lead	U		0.000849	0.00200
Nickel	U		0.000816	0.00200
Selenium	U		0.000300	0.00200
Silver	U		0.0000700	0.00200
Zinc	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R4063407-2 04/29/24 13:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0500	100	80.0-120	
Barium	0.0500	0.0489	97.7	80.0-120	
Cadmium	0.0500	0.0553	111	80.0-120	
Copper	0.0500	0.0543	109	80.0-120	
Lead	0.0500	0.0531	106	80.0-120	
Nickel	0.0500	0.0540	108	80.0-120	
Selenium	0.0500	0.0513	103	80.0-120	
Silver	0.0500	0.0506	101	80.0-120	
Zinc	0.0500	0.0490	98.0	80.0-120	

L1728561-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1728561-01 04/29/24 14:38 • (MS) R4063407-7 04/29/24 14:50 • (MSD) R4063407-8 04/29/24 14:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	ND	0.0375	0.0358	72.7	69.4	5	75.0-125	J6	J6	4.45	20
Barium	0.0500	40.8	39.2	38.2	0.000	0.000	5	75.0-125	V	V	2.60	20
Cadmium	0.0500	ND	0.0490	0.0483	98.1	96.6	5	75.0-125			1.58	20
Copper	0.0500	ND	0.0413	0.0390	82.5	77.9	5	75.0-125			5.75	20
Lead	0.0500	ND	0.0492	0.0473	98.4	94.6	5	75.0-125			3.93	20
Nickel	0.0500	ND	0.0446	0.0429	74.2	70.7	5	75.0-125	J6	J6	3.98	20
Selenium	0.0500	ND	0.0525	0.0491	105	98.3	5	75.0-125			6.58	20
Silver	0.0500	ND	0.0484	0.0456	96.8	91.2	5	75.0-125			5.95	20
Zinc	0.0500	ND	0.154	0.149	70.9	61.1	5	75.0-125	J6	J6	3.23	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

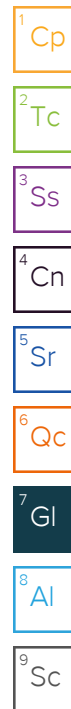
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

## Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
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
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.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1 6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1 4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.



[illegible]

April 29, 2024

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

## Caerus Oil and Gas

Sample Delivery Group: L1728558

Samples Received: 04/23/2024

Project Number:

Description: H26 596 Flowline (06A)

Report To: Jake J. / Brett M. / Blair R. / Andy V.

143 Diamond Avenue

Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward

Project Manager

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

**Pace Analytical National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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# SAMPLE SUMMARY

20240422-NPRBG-(H26-SE)@1 L1728558-01 Solid

Collected by  
MR / GG

Collected date/time  
04/22/24 10:30

Received date/time  
04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2275228	1	04/27/24 10:43	04/27/24 10:43	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2275127	1	04/26/24 10:43	04/26/24 14:15	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2273878	1	04/24/24 22:22	04/25/24 12:00	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2273914	1	04/25/24 08:43	04/25/24 19:10	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2275225	1	04/26/24 12:35	04/27/24 11:26	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2274167	5	04/25/24 14:54	04/28/24 20:03	LD	Mt. Juliet, TN

20240422-NPRBG-(H26-N)@1 L1728558-02 Solid

Collected by  
MR / GG

Collected date/time  
04/22/24 10:55

Received date/time  
04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2275228	1	04/27/24 10:45	04/27/24 10:45	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2275127	1	04/26/24 10:43	04/26/24 14:21	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2273878	1	04/24/24 22:22	04/25/24 12:00	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2273914	1	04/25/24 08:43	04/25/24 19:10	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2275225	1	04/26/24 12:35	04/27/24 11:31	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2274167	5	04/25/24 14:54	04/28/24 20:06	LD	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	0.151		1	04/27/2024 10:43	WG2275228

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/26/2024 14:15	<a href="#">WG2275127</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.93	<a href="#">T8</a>	1	04/25/2024 12:00	<a href="#">WG2273878</a>

Sample Narrative:  
L1728558-01 WG2273878: 7.93 at 20C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	207		10.0	1	04/25/2024 19:10	<a href="#">WG2273914</a>

Sample Narrative:  
L1728558-01 WG2273914: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.803		0.200	1	04/27/2024 11:26	<a href="#">WG2275225</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	10.3		1.00	5	04/28/2024 20:03	<a href="#">WG2274167</a>
Barium	315		2.50	5	04/28/2024 20:03	<a href="#">WG2274167</a>
Cadmium	ND		1.00	5	04/28/2024 20:03	<a href="#">WG2274167</a>
Copper	19.1		5.00	5	04/28/2024 20:03	<a href="#">WG2274167</a>
Lead	14.2		2.00	5	04/28/2024 20:03	<a href="#">WG2274167</a>
Nickel	16.8		2.50	5	04/28/2024 20:03	<a href="#">WG2274167</a>
Selenium	ND		2.50	5	04/28/2024 20:03	<a href="#">WG2274167</a>
Silver	ND		0.500	5	04/28/2024 20:03	<a href="#">WG2274167</a>
Zinc	65.4		25.0	5	04/28/2024 20:03	<a href="#">WG2274167</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.579		1	04/27/2024 10:45	WG2275228

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		1.00	1	04/26/2024 14:21	<a href="#">WG2275127</a>

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.17	<a href="#">T8</a>	1	04/25/2024 12:00	<a href="#">WG2273878</a>

Sample Narrative:  
L1728558-02 WG2273878: 8.17 at 20.1C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	155		10.0	1	04/25/2024 19:10	<a href="#">WG2273914</a>

Sample Narrative:  
L1728558-02 WG2273914: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.430		0.200	1	04/27/2024 11:31	<a href="#">WG2275225</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	11.3		1.00	5	04/28/2024 20:06	<a href="#">WG2274167</a>
Barium	176		2.50	5	04/28/2024 20:06	<a href="#">WG2274167</a>
Cadmium	ND		1.00	5	04/28/2024 20:06	<a href="#">WG2274167</a>
Copper	12.8		5.00	5	04/28/2024 20:06	<a href="#">WG2274167</a>
Lead	10.3		2.00	5	04/28/2024 20:06	<a href="#">WG2274167</a>
Nickel	11.9		2.50	5	04/28/2024 20:06	<a href="#">WG2274167</a>
Selenium	ND		2.50	5	04/28/2024 20:06	<a href="#">WG2274167</a>
Silver	ND		0.500	5	04/28/2024 20:06	<a href="#">WG2274167</a>
Zinc	33.4		25.0	5	04/28/2024 20:06	<a href="#">WG2274167</a>

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4062645-1 04/26/24 14:00

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

L1729185-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1729185-03 04/26/24 14:34 • (DUP) R4062645-3 04/26/24 14:40

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

Laboratory Control Sample (LCS)

(LCS) R4062645-2 04/26/24 14:09

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	10.6	106	80.0-120	

L1729185-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1729185-05 04/26/24 14:46 • (MS) R4062645-4 04/26/24 14:52 • (MSD) R4062645-5 04/26/24 14:58

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	ND	11.6	16.2	58.2	81.2	1	75.0-125	J6	J3	33.0	20

L1729185-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1729185-05 04/26/24 14:46 • (MS) R4062645-6 04/26/24 15:17

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	636	ND	669	105	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1728399-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1728399-01 04/25/24 12:00 • (DUP) R4062148-2 04/25/24 12:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.10	8.11	1	0.123		1

Sample Narrative:

OS: 8.1 at 20.4C

DUP: 8.11 at 20.4C

L1728604-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1728604-02 04/25/24 12:00 • (DUP) R4062148-3 04/25/24 12:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	5.39	5.36	1	0.558		1

Sample Narrative:

OS: 5.39 at 19.9C

DUP: 5.36 at 19.9C

Laboratory Control Sample (LCS)

(LCS) R4062148-1 04/25/24 12:00

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

Sample Narrative:

LCS: 9.99 at 20.5C





Method Blank (MB)

(MB) R4062274-1 04/25/24 19:10

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

L1728505-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1728505-12 04/25/24 19:10 • (DUP) R4062274-3 04/25/24 19:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	762	757	1	0.658		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1728553-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1728553-01 04/25/24 19:10 • (DUP) R4062274-4 04/25/24 19:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	4260	4250	1	0.235		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4062274-2 04/25/24 19:10

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	336	103	85.0-115	

Sample Narrative:

LCS: at 25C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4062903-1 04/27/24 11:11

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

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

(LCS) R4062903-2 04/27/24 11:13 • (LCSD) R4062903-3 04/27/24 11:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	0.930	1.08	93.0	108	80.0-120			14.9	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R4063106-1 04/28/24 18:29

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	0.155	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

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

Laboratory Control Sample (LCS)

(LCS) R4063106-2 04/28/24 18:32

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	95.3	95.3	80.0-120	
Cadmium	100	98.6	98.6	80.0-120	
Copper	100	101	101	80.0-120	
Lead	100	99.8	99.8	80.0-120	
Nickel	100	99.1	99.1	80.0-120	
Selenium	100	96.4	96.4	80.0-120	
Silver	20.0	19.9	99.4	80.0-120	
Zinc	100	93.0	93.0	80.0-120	

7  
Gl

8  
Al

9  
Sc

L1722972-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1722972-16 04/28/24 18:35 • (MS) R4063106-5 04/28/24 18:45 • (MSD) R4063106-6 04/28/24 18:48

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	99.7	4.30	97.0	93.9	92.7	89.6	5	75.0-125			3.30	20
Barium	99.7	515	634	521	119	6.04	5	75.0-125		V	19.5	20
Cadmium	99.7	ND	99.8	96.3	99.7	96.2	5	75.0-125			3.60	20
Copper	99.7	8.42	109	101	101	92.4	5	75.0-125			7.85	20
Lead	99.7	12.8	123	106	111	93.5	5	75.0-125			14.8	20
Nickel	99.7	18.0	113	109	94.6	91.2	5	75.0-125			3.09	20
Selenium	99.7	ND	92.4	90.5	92.0	90.2	5	75.0-125			1.97	20
Silver	20.0	ND	19.7	19.1	98.3	95.4	5	75.0-125			3.03	20
Zinc	99.7	38.5	121	117	82.9	78.5	5	75.0-125			3.74	20

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

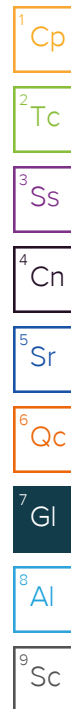
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		


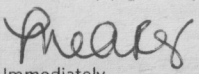
<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* 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.





<b>Company Name/Address:</b> Caerus Oil + Gas 143 Diamond Ave Parachute, CO 81635				<b>Billing Information:</b> Accounts Payable 1001 17th Street, Suite 1600 Denver, CO 80202				<b>Analysis / Container / Preservative</b>				<b>Chain of Custody</b> Page ____ of ____   PEOPLE ADVANCING SCIENCE  12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Alt: 800-767-5859  Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <a href="https://info.pacelabs.com/hubfs/pas-standard-terms.pdf">https://info.pacelabs.com/hubfs/pas-standard-terms.pdf</a>	
<b>Report to:</b> Jake J/ Brett M/ Blair R/ Andy V				<b>Email To:</b> labreports@caerusoilandgas.com				915-1 Metals PH, EC, SAR, Boron				SDG # 1728558 <b>A219</b>	
<b>Project Description:</b> H26 596 FLOWLINE (OGA)		<b>City/State Collected:</b>		<b>Please Circle:</b> PT (MT) CT ET									
<b>Phone:</b> 970-285-2653		<b>Client Project #</b>		<b>Lab Project #</b> CAERUSPCO-915									
<b>Collected by (print):</b> Meredith Roberts/ Garrett Green		<b>Site/Facility ID #</b>		<b>P.O. #</b>									
<b>Collected by (signature):</b> 		<b>Rush? (Lab MUST Be Notified)</b> ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day		<b>Quote #</b>  Date Results Needed Standard TAT									
<b>Immediately Packed on Ice</b> N ___ Y ___		<b>No. of Cntrs</b>											
<b>Sample ID</b>		<b>Comp/Grab</b>	<b>Matrix*</b>	<b>Depth</b>	<b>Date</b>	<b>Time</b>	<b>No. of Cntrs</b>	<b>Remarks</b>	<b>Sample # (lab only)</b>				
20240422-NPRBG-(H26-SE)@1		G	SS	1	4/22/24	1030	4	X	X				
20240422-NPRBG-(H26-N)@1		G	SS	1	4/22/24	1055	4	X	X				
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## Division of Environmental Testing

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

April 26, 2024

143 Diamond Ave  
Parachute, CO 81635  
970-285-2600  
averbonitz@caerusoilandgas.com

**Project Manager :** Jake J/Brett M/Blair R/Andy V

**Project Name :** H26 596 Flowline (06A)

**Project Number :** 09D2436014

Attached are the analytical results for H26 596 Flowline (06A) 09D2436014 received by Elevation Diagnostics, Division of Environmental Testing on April 18, 2024. This is associated with Elevation's number AA07299 .

The results were analyzed under the guidelines of various methods. These methods are identified in the report as follows: "SW" is referring to the EPA's SW-846 Compendium; "EPA" is referring to 40 CFR part 136; "HACH" is referring to a method which was validated by HACH®; "SM" is referring to a revision of the Standard Methods For the Examination of Water and Wastewater; and "ASTM" is referring to the standard test method set forth by ASTM International.

The analytical results in this report apply specifically to the samples listed in the attached Chain of Custody. This report may only be duplicated in full.

Any deviations to sample integrity, method specifications, or Elevation Diagnostics's standard operating procedures are documented in the report below.

Please contact us for any questions or comments concerning the content of this report.

Thank you,

Elevation Diagnostics, Division of Environmental Testing

Kristen Reichel  
Laboratory Director  
CSO,CCO






# Chain of Custody Form


Client: Caerus oil & gas  
 Address: 143 Diamond Ave  
 City/State/ZIP: Parachute, CO 81635  
 Phone: 970-285-2653  
 Project Contact: Jake J/Brett M/Blair B/Andy V

# Elevation Diagnostics

2115 North Scranton Street Suite 3040A Aurora, CO 80045  
 800.440.5184

Project Name/Number: H26 596 Flowline (GGA) 0902436014  
 Project Location: 39.586664, -108.129779  
 Collector Name: Meredith Roberts/Garrett Green

Sample ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested										Interim report requested						
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Other	Full Table 915-1											<input type="checkbox"/> Yes	<input type="checkbox"/> No				
					Notes																							
1	20240417 H26 (POR) @ 6	4/17/2024	1125	3						X		X																
2	20240417 H26 (NW01) @ 4	↓	1130	3						X		X																
3	20240417 H26 (NW01) @ 4		1135	3							X		X															
4	20240417 H26 (SW01) @ 4		1140	3							X		X															
5	20240417 H26 (EW01) @ 4		1145	3							X		X															
6																												
7																												
8	 AA07299-1	 AA07300-1	 AA07301-1	 AA07302-1	 AA07303-1																							
9																												
10																												

Relinquished By: <u>meary</u>		Relinquished By:		Relinquished By:		Scan to Deliver Samples  EFOR-008.005
Date/Time: <u>4/17/24</u> <u>1355W 1A25</u>		Date/Time:		Date/Time:		
Lab Use Only	Observed Temperature Upon Receipt: <u>3.3°C</u> Corrected Temperature Upon Receipt: <u>4.6°C</u> Thermometer #: <u>EDXEQ 248</u> Correction Factor: <u>1.3°C</u>	Samples Intact: <u>Yes</u> <u>No</u> pH Checked: <u>Yes</u> <u>No</u> pH Adjusted: <u>Yes</u> <u>No</u> PFAS rec'd on ice: <u>Yes</u> <u>No</u> <u>N/A</u>	Lot/EQM Number: <u>2024-04-18-004</u>			
Name/Lot Number of Adjustment: _____						



**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**Report Date :** 4/26/2024**Report Time :** 15:51**FINAL RESULTS REPORT****Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A) **Project Number:** 09D2436014

Sample ID	Customer ID	Collected		Dilution	Result	Units	RL	Method Ref.
Analyte Name		Analysis Start						Recovery
AA07299-1	20240417 H26 (POR)@6	Collected : 04/17/2024		11:25				
SAR - Calcium		04/24/2024	11:49	10.00	2.093	mEq/L	0.000	EPA 6020B
SAR - Magnesium		04/24/2024	11:49	10.00	3.059	mEq/L	0.000	EPA 6020B
SAR - Sodium		04/24/2024	11:49	10.00	1.902	mEq/L	0.000	EPA 6020B
SAR - Sodium Adsorption Ratio		04/24/2024	11:49		1.185		0.000	EPA 6020B
Soil Conductivity		04/19/2024	14:15		0.339	mmhos/cm		USDA 60
AA07299-2	20240417 H26 (POR)@6	Collected : 04/17/2024		11:25				
Chromium VI, Soil		04/22/2024	11:04		0.1181	mg/kg	0.080	EPA 7199
Hot Water Soluble Boron		04/24/2024	10:27		0.546	mg/kg	0.050	Boron Hot Water Extraction
pH, Soils Temperature		04/18/2024	12:55		21.8	°C		
pH, Soils		04/18/2024	12:55		8.99	S.U.	0.01	EPA 9045D
Total Metals, Soils - Arsenic		04/24/2024	13:02	10.00	14.271	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Barium		04/24/2024	13:02	10.00	1414.336	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Cadmium		04/24/2024	13:02	10.00	0.501	mg/kg	0.001	EPA 3050B
Total Metals, Soils - Copper		04/24/2024	13:02	10.00	29.408	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Lead		04/24/2024	13:02	10.00	18.055	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Nickel		04/24/2024	13:02	10.00	18.803	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Selenium		04/24/2024	13:02	10.00	1.754	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Silver		04/24/2024	13:02	10.00	<0.250 - RL1	mg/kg	0.250	EPA 3050B
Total Metals, Soils - Zinc		04/24/2024	13:02	10.00	61.123	mg/kg	0.025	EPA 3050B
AA07299-3	20240417 H26 (POR)@6	Collected : 04/17/2024		11:25				
DRO & ORO, Soil - DRO		04/25/2024	11:40		<100.00	mg/kg	100.00	EPA 8015D
DRO & ORO, Soil - ORO		04/25/2024	11:40		Not Detected	mg/kg	100.00	EPA 8015D
Gasoline Range Organics, Soil		04/23/2024	10:57		0.46601	mg/kg	0.26827	EPA 8260
SVOC, Soils - 1-methylnaphthalene		04/26/2024	14:47	10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - 2-methylnaphthalene		04/26/2024	14:47	10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - Acenaphthene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Anthracene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benz(a)anthracene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(a)pyrene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(b)fluoranthene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(k)fluoranthene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Chrysene		04/26/2024	14:47	10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - Dibenzo(a,h)anthracene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluoranthene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluorene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Indeno(1,2,3-cd)pyrene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Naphthalene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Pyrene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
VOC, Soils - 1,2,4-trimethylbenzene		04/23/2024	13:46		<0.00245	mg/kg	0.00245	EPA 8260
VOC, Soils - 1,3,5-trimethylbenzene		04/23/2024	13:46		0.03578	mg/kg	0.005	EPA 8260
VOC, Soils - Benzene		04/23/2024	13:46		<0.00242	mg/kg	0.00242	EPA 8260
VOC, Soils - Ethylbenzene		04/23/2024	13:46		<0.005	mg/kg	0.005	EPA 8260
VOC, Soils - m&p- xylene		04/23/2024	13:46		0.00630	mg/kg	0.00427	EPA 8260

**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**Report Date :** 4/26/2024**Report Time :** 15:51**FINAL RESULTS REPORT****Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A) **Project Number:** 09D2436014

Sample ID	Customer ID	Collected	Dilution	Result	Units	RL	Method Ref.
Analyte Name		Analysis Start					Recovery
VOC, Soils - o-xylene		04/23/2024	13:46	<0.00227	mg/kg	0.00227	EPA 8260
VOC, Soils - Toluene		04/23/2024	13:46	<0.00263	mg/kg	0.00263	EPA 8260
VOC, Soils - Xylenes, total		04/23/2024	13:46	<0.00654	mg/kg	0.00654	EPA 8260
<b>AA07300-1</b>	20240417 H26 (NW01)@4	<b>Collected :</b> 04/17/2024 11:30					
SAR - Calcium		04/24/2024	11:49 10.00	2.009	mEq/L	0.000	EPA 6020B
SAR - Magnesium		04/24/2024	11:49 10.00	3.558	mEq/L	0.000	EPA 6020B
SAR - Sodium		04/24/2024	11:49 10.00	2.517	mEq/L	0.000	EPA 6020B
SAR - Sodium Adsorption Ratio		04/24/2024	11:49	1.509		0.000	EPA 6020B
Soil Conductivity		04/19/2024	14:15	0.383	mmhos/cm		USDA 60
<b>AA07300-2</b>	20240417 H26 (NW01)@4	<b>Collected :</b> 04/17/2024 11:30					
Chromium VI, Soil		04/22/2024	11:04	0.1587	mg/kg	0.080	EPA 7199
Hot Water Soluble Boron		04/24/2024	10:27	0.660	mg/kg	0.050	Boron Hot Water Extraction
pH, Soils Temperature		04/18/2024	12:55	21.9	°C		
pH, Soils		04/18/2024	12:55	8.91	S.U.	0.01	EPA 9045D
Total Metals, Soils - Arsenic		04/24/2024	13:02 10.00	12.764	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Barium		04/24/2024	13:02 10.00	1109.361	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Cadmium		04/24/2024	13:02 10.00	0.373	mg/kg	0.001	EPA 3050B
Total Metals, Soils - Copper		04/24/2024	13:02 10.00	23.849	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Lead		04/24/2024	13:02 10.00	15.161	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Nickel		04/24/2024	13:02 10.00	15.896	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Selenium		04/24/2024	13:02 10.00	1.787	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Silver		04/24/2024	13:02 10.00	<0.250 - RL1	mg/kg	0.250	EPA 3050B
Total Metals, Soils - Zinc		04/24/2024	13:02 10.00	53.522	mg/kg	0.025	EPA 3050B
<b>AA07300-3</b>	20240417 H26 (NW01)@4	<b>Collected :</b> 04/17/2024 11:30					
DRO & ORO, Soil - DRO		04/25/2024	11:40	Not Detected	mg/kg	100.00	EPA 8015D
DRO & ORO, Soil - ORO		04/25/2024	11:40	Not Detected	mg/kg	100.00	EPA 8015D
Gasoline Range Organics, Soil		04/23/2024	10:57	<0.26827	mg/kg	0.26827	EPA 8260
SVOC, Soils - 1-methylnaphthalene		04/26/2024	14:47 10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - 2-methylnaphthalene		04/26/2024	14:47 10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - Acenaphthene		04/26/2024	14:47 10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - Anthracene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benz(a)anthracene		04/26/2024	14:47 10.00	<0.100 - RL1	mg/kg	0.100	EPA 8270
SVOC, Soils - Benzo(a)pyrene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(b)fluoranthene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(k)fluoranthene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Chrysene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Dibenzo(a,h)anthracene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluoranthene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluorene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Indeno(1,2,3-cd)pyrene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Naphthalene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Pyrene		04/26/2024	14:47 10.00	Not Detected	mg/kg	0.010	EPA 8270
VOC, Soils - 1,2,4-trimethylbenzene		04/23/2024	13:46	Not Detected	mg/kg	0.00245	EPA 8260
VOC, Soils - 1,3,5-trimethylbenzene		04/23/2024	13:46	Not Detected	mg/kg	0.005	EPA 8260



**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**Report Date :** 4/26/2024**Report Time :** 15:51**FINAL RESULTS REPORT****Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A) **Project Number:** 09D2436014

Sample ID	Customer ID	Collected	Dilution	Result	Units	RL	Method Ref.
Analyte Name		Analysis Start					Recovery
VOC, Soils - Benzene		04/23/2024 13:46		Not Detected	mg/kg	0.00242	EPA 8260
VOC, Soils - Ethylbenzene		04/23/2024 13:46		<0.005	mg/kg	0.005	EPA 8260
VOC, Soils - m&p- xylene		04/23/2024 13:46		<0.00427	mg/kg	0.00427	EPA 8260
VOC, Soils - o-xylene		04/23/2024 13:46		Not Detected	mg/kg	0.00227	EPA 8260
VOC, Soils - Toluene		04/23/2024 13:46		<0.00263	mg/kg	0.00263	EPA 8260
VOC, Soils - Xylenes, total		04/23/2024 13:46		<0.00654	mg/kg	0.00654	EPA 8260
<b>AA07301-1</b>	20240417 H26 (WW01)@4	<b>Collected :</b> 04/17/2024 11:35					
SAR - Calcium		04/24/2024 11:49	10.00	1.926	mEq/L	0.000	EPA 6020B
SAR - Magnesium		04/24/2024 11:49	10.00	3.630	mEq/L	0.000	EPA 6020B
SAR - Sodium		04/24/2024 11:49	10.00	2.120	mEq/L	0.000	EPA 6020B
SAR - Sodium Adsorption Ratio		04/24/2024 11:49		1.272		0.000	EPA 6020B
Soil Conductivity		04/19/2024 14:15		0.456	mmhos/cm		USDA 60
<b>AA07301-2</b>	20240417 H26 (WW01)@4	<b>Collected :</b> 04/17/2024 11:35					
Chromium VI, Soil		04/22/2024 11:04		0.1631	mg/kg	0.080	EPA 7199
Hot Water Soluble Boron		04/24/2024 10:27		0.707	mg/kg	0.050	Boron Hot Water Extraction
pH, Soils Temperature		04/18/2024 12:55		21.9	°C		
pH, Soils		04/18/2024 12:55		9.02	S.U.	0.01	EPA 9045D
Total Metals, Soils - Arsenic		04/24/2024 13:02	10.00	12.407	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Barium		04/24/2024 13:02	10.00	1243.757	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Cadmium		04/24/2024 13:02	10.00	0.325	mg/kg	0.001	EPA 3050B
Total Metals, Soils - Copper		04/24/2024 13:02	10.00	23.864	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Lead		04/24/2024 13:02	10.00	14.541	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Nickel		04/24/2024 13:02	10.00	16.281	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Selenium		04/24/2024 13:02	10.00	1.967	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Silver		04/24/2024 13:02	10.00	<0.250 - RL 1	mg/kg	0.250	EPA 3050B
Total Metals, Soils - Zinc		04/24/2024 13:02	10.00	53.978	mg/kg	0.025	EPA 3050B
<b>AA07301-3</b>	20240417 H26 (WW01)@4	<b>Collected :</b> 04/17/2024 11:35					
DRO & ORO, Soil - DRO		04/25/2024 11:40		Not Detected	mg/kg	100.00	EPA 8015D
DRO & ORO, Soil - ORO		04/25/2024 11:40		Not Detected	mg/kg	100.00	EPA 8015D
Gasoline Range Organics, Soil		04/23/2024 10:57		<0.26827	mg/kg	0.26827	EPA 8260
SVOC, Soils - 1-methylnaphthalene		04/26/2024 14:47	10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - 2-methylnaphthalene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Acenaphthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Anthracene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benz(a)anthracene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(a)pyrene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(b)fluoranthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(k)fluoranthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Chrysene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Dibenzo(a,h)anthracene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluoranthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluorene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Indeno(1,2,3-cd)pyrene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Naphthalene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270

**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**Report Date :** 4/26/2024**Report Time :** 15:51**FINAL RESULTS REPORT****Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A) **Project Number:** 09D2436014

Sample ID	Customer ID	Collected	Dilution	Result	Units	RL	Method Ref.
Analyte Name		Analysis Start					Recovery
SVOC, Soils - Pyrene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
VOC, Soils - 1,2,4-trimethylbenzene		04/23/2024 13:46		Not Detected	mg/kg	0.00245	EPA 8260
VOC, Soils - 1,3,5-trimethylbenzene		04/23/2024 13:46		Not Detected	mg/kg	0.005	EPA 8260
VOC, Soils - Benzene		04/23/2024 13:46		<0.00242	mg/kg	0.00242	EPA 8260
VOC, Soils - Ethylbenzene		04/23/2024 13:46		<0.005	mg/kg	0.005	EPA 8260
VOC, Soils - m&p- xylene		04/23/2024 13:46		<0.00427	mg/kg	0.00427	EPA 8260
VOC, Soils - o-xylene		04/23/2024 13:46		<0.00227	mg/kg	0.00227	EPA 8260
VOC, Soils - Toluene		04/23/2024 13:46		<0.00263	mg/kg	0.00263	EPA 8260
VOC, Soils - Xylenes, total		04/23/2024 13:46		<0.00654	mg/kg	0.00654	EPA 8260
<b>AA07302-1</b>	20240417 H26 (SW01)@4	<b>Collected : 04/17/2024 11:40</b>					
SAR - Calcium		04/24/2024 11:49	10.00	2.056	mEq/L	0.000	EPA 6020B
SAR - Magnesium		04/24/2024 11:49	10.00	3.048	mEq/L	0.000	EPA 6020B
SAR - Sodium		04/24/2024 11:49	10.00	1.408	mEq/L	0.000	EPA 6020B
SAR - Sodium Adsorption Ratio		04/24/2024 11:49		0.881		0.000	EPA 6020B
Soil Conductivity		04/19/2024 14:15		0.570	mmhos/cm		USDA 60
<b>AA07302-2</b>	20240417 H26 (SW01)@4	<b>Collected : 04/17/2024 11:40</b>					
Chromium VI, Soil		04/22/2024 11:04		0.1603	mg/kg	0.080	EPA 7199
Hot Water Soluble Boron		04/24/2024 10:27		0.516	mg/kg	0.050	Boron Hot Water Extraction
pH, Soils Temperature		04/18/2024 12:55		21.9	°C		
pH, Soils		04/18/2024 12:55		8.93	S.U.	0.01	EPA 9045D
Total Metals, Soils - Arsenic		04/24/2024 13:02	10.00	11.839	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Barium		04/24/2024 13:02	10.00	1135.094	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Cadmium		04/24/2024 13:02	10.00	0.342	mg/kg	0.001	EPA 3050B
Total Metals, Soils - Copper		04/24/2024 13:02	10.00	27.342	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Lead		04/24/2024 13:02	10.00	16.544	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Nickel		04/24/2024 13:02	10.00	16.636	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Selenium		04/24/2024 13:02	10.00	1.841	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Silver		04/24/2024 13:02	10.00	<0.250 - RL1	mg/kg	0.250	EPA 3050B
Total Metals, Soils - Zinc		04/24/2024 13:02	10.00	59.314	mg/kg	0.025	EPA 3050B
<b>AA07302-3</b>	20240417 H26 (SW01)@4	<b>Collected : 04/17/2024 11:40</b>					
DRO & ORO, Soil - DRO		04/25/2024 11:40		Not Detected	mg/kg	100.00	EPA 8015D
DRO & ORO, Soil - ORO		04/25/2024 11:40		Not Detected	mg/kg	100.00	EPA 8015D
Gasoline Range Organics, Soil		04/23/2024 10:57		<0.26827	mg/kg	0.26827	EPA 8260
SVOC, Soils - 1-methylnaphthalene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - 2-methylnaphthalene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Acenaphthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Anthracene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benz(a)anthracene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(a)pyrene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(b)fluoranthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(k)fluoranthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Chrysene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Dibenzo(a,h)anthracene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluoranthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270

**Division of Environmental Testing**

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**Report Date :** 4/26/2024**Report Time :** 15:51**FINAL RESULTS REPORT****Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A) **Project Number:** 09D2436014

Sample ID	Customer ID	Collected	Dilution	Result	Units	RL	Method Ref.
Analyte Name		Analysis Start					Recovery
SVOC, Soils - Fluorene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Indeno(1,2,3-cd)pyrene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Naphthalene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Pyrene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
VOC, Soils - 1,2,4-trimethylbenzene		04/23/2024 13:46		Not Detected	mg/kg	0.00245	EPA 8260
VOC, Soils - 1,3,5-trimethylbenzene		04/23/2024 13:46		0.03290	mg/kg	0.005	EPA 8260
VOC, Soils - Benzene		04/23/2024 13:46		<0.00242	mg/kg	0.00242	EPA 8260
VOC, Soils - Ethylbenzene		04/23/2024 13:46		<0.005	mg/kg	0.005	EPA 8260
VOC, Soils - m&p- xylene		04/23/2024 13:46		<0.00427	mg/kg	0.00427	EPA 8260
VOC, Soils - o-xylene		04/23/2024 13:46		<0.00227	mg/kg	0.00227	EPA 8260
VOC, Soils - Toluene		04/23/2024 13:46		<0.00263	mg/kg	0.00263	EPA 8260
VOC, Soils - Xylenes, total		04/23/2024 13:46		<0.00654	mg/kg	0.00654	EPA 8260
<b>AA07303-1</b>	20240417 H26 (EW01)@4	<b>Collected :</b> 04/17/2024 11:45					
SAR - Calcium		04/24/2024 11:49	10.00	1.673	mEq/L	0.000	EPA 6020B
SAR - Magnesium		04/24/2024 11:49	10.00	2.730	mEq/L	0.000	EPA 6020B
SAR - Sodium		04/24/2024 11:49	10.00	1.642	mEq/L	0.000	EPA 6020B
SAR - Sodium Adsorption Ratio		04/24/2024 11:49		1.107		0.000	EPA 6020B
Soil Conductivity		04/19/2024 14:15		0.333	mmhos/cm		USDA 60
<b>AA07303-2</b>	20240417 H26 (EW01)@4	<b>Collected :</b> 04/17/2024 11:45					
Chromium VI, Soil		04/22/2024 11:04		0.1343	mg/kg	0.080	EPA 7199
Hot Water Soluble Boron		04/24/2024 10:27		0.536	mg/kg	0.050	Boron Hot Water Extraction
pH, Soils Temperature		04/18/2024 12:55		21.8	°C		
pH, Soils		04/18/2024 12:55		8.90	S.U.	0.01	EPA 9045D
Total Metals, Soils - Arsenic		04/24/2024 13:02	10.00	11.708	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Barium		04/24/2024 13:02	10.00	1116.240	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Cadmium		04/24/2024 13:02	10.00	0.364	mg/kg	0.001	EPA 3050B
Total Metals, Soils - Copper		04/24/2024 13:02	10.00	25.348	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Lead		04/24/2024 13:02	10.00	15.166	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Nickel		04/24/2024 13:02	10.00	16.110	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Selenium		04/24/2024 13:02	10.00	1.393	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Silver		04/24/2024 13:02	10.00	<0.250 - RL1	mg/kg	0.250	EPA 3050B
Total Metals, Soils - Zinc		04/24/2024 13:02	10.00	54.080	mg/kg	0.025	EPA 3050B
<b>AA07303-3</b>	20240417 H26 (EW01)@4	<b>Collected :</b> 04/17/2024 11:45					
DRO & ORO, Soil - DRO		04/25/2024 11:40		Not Detected	mg/kg	100.00	EPA 8015D
DRO & ORO, Soil - ORO		04/25/2024 11:40		Not Detected	mg/kg	100.00	EPA 8015D
Gasoline Range Organics, Soil		04/23/2024 10:57		<0.26827	mg/kg	0.26827	EPA 8260
SVOC, Soils - 1-methylnaphthalene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - 2-methylnaphthalene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Acenaphthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Anthracene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benz(a)anthracene		04/26/2024 14:47	10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(a)pyrene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(b)fluoranthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(k)fluoranthene		04/26/2024 14:47	10.00	Not Detected	mg/kg	0.010	EPA 8270



## Division of Environmental Testing

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

Report Date : 4/26/2024

Report Time : 15:51

## FINAL RESULTS REPORT

Project Manager: Jake J/Brett M/Blair R/Andy \ Project Name: H26 596 Flowline (06A) Project Number: 09D2436014

Sample ID	Customer ID	Collected	Dilution	Result	Units	RL	Method Ref.
Analyte Name		Analysis Start					Recovery
SVOC, Soils - Chrysene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010 EPA 8270
SVOC, Soils - Dibenzo(a,h)anthracene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010 EPA 8270
SVOC, Soils - Fluoranthene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010 EPA 8270
SVOC, Soils - Fluorene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010 EPA 8270
SVOC, Soils - Indeno(1,2,3-cd)pyrene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010 EPA 8270
SVOC, Soils - Naphthalene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010 EPA 8270
SVOC, Soils - Pyrene		04/26/2024	14:47	10.00	Not Detected	mg/kg	0.010 EPA 8270
VOC, Soils - 1,2,4-trimethylbenzene		04/23/2024	13:46		Not Detected	mg/kg	0.00245 EPA 8260
VOC, Soils - 1,3,5-trimethylbenzene		04/23/2024	13:46		<0.005	mg/kg	0.005 EPA 8260
VOC, Soils - Benzene		04/23/2024	13:46		<0.00242	mg/kg	0.00242 EPA 8260
VOC, Soils - Ethylbenzene		04/23/2024	13:46		Not Detected	mg/kg	0.005 EPA 8260
VOC, Soils - m&p- xylene		04/23/2024	13:46		<0.00427	mg/kg	0.00427 EPA 8260
VOC, Soils - o-xylene		04/23/2024	13:46		<0.00227	mg/kg	0.00227 EPA 8260
VOC, Soils - Toluene		04/23/2024	13:46		<0.00263	mg/kg	0.00263 EPA 8260
VOC, Soils - Xylenes, total		04/23/2024	13:46		<0.00654	mg/kg	0.00654 EPA 8260

### QC Report

BORON-2705		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07295	0.406	0.050	mg/kg		0.404			0.49383	-15 - 15
MB AA07311	0.007		mg/kg						
LCS AA07312	0.988		mg/kg	1.000		98.8	80 - 120		
LCS AA07313	9.29		mg/kg	9.000		103	80 - 120		
CHROM_VI_SOIL-2706		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07295	0.1107	0.080	mg/kg		0.1092			1.3643	
MB AA07324	<0.080		mg/kg						
LCS AA07326	0.0403		mg/kg	0.0400		101			
LCS AA07327	0.0409		mg/kg	0.0400		102			
GRO_SOIL-2730		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07298	1.39508	0.26827	mg/kg		<0.26827			3.4490	
Matrix Spike AA07298	1.44404		mg/kg	2.150	<0.26827	67.2			
MB AA07395	<0.26827		mg/kg						
LCS AA07396	2.78125		mg/kg	2.150		129			
LCS AA07397	1.95391		mg/kg	2.150		90.9			
PH_S-2702		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07295	8.38	0.01	S.U.		8.39			0.1192605843	-5 - 5
LCS AA07305	6.88	0.01	S.U.	6.86		100	95 - 105		
LCS AA07306	6.89	0.01	S.U.	6.86		100	95 - 105		
SOIL_CONDUCTIVITY-2718		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07337	378		µS/cm		384			1.5748	
LCS AA07362	9840		µS/cm	10000		98.4			
LCS AA07363	9740		µS/cm	10000		97.4			



## Division of Environmental Testing

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

# FINAL RESULTS REPORT

Report Date : 4/26/2024

Report Time : 15:51

Project Manager: Jake J/Brett M/Blair R/Andy \ Project Name: H26 596 Flowline (06A)

Project Number: 09D2436014

## QC Report

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
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### DRO\_ORO\_SOIL-2708

#### AA07321

##### DUP

DRO 394.98 Not Detected 10.4

ORO 360.30 Not Detected 29.6

##### Matrix Spike

DRO 355.81 mg/kg 350 Not Detected 102

ORO 267.30 mg/kg 350 Not Detected 76.4

#### AA07328

##### MB

DRO Not Detected mg/kg

ORO Not Detected mg/kg

#### AA07329

##### LCS

DRO 357.09 mg/kg 102

ORO 243.03 mg/kg 69.4

#### AA07330

DRO 387.40 mg/kg 111

ORO 310.12 mg/kg 88.6

### METALS\_S-2725

#### AA07384

##### MB

Arsenic 0.000 mg/kg

Barium 0.000 mg/kg

Cadmium 0.000 mg/kg

Copper 0.005 mg/kg

Lead 0.000 mg/kg

Nickel 0.000 mg/kg

Selenium 0.000 mg/kg

Silver 0.000 mg/kg

Zinc 0.012 mg/kg

#### AA07386

##### LCS

Arsenic 0.087 mg/kg 96.7 80 - 120

Barium 0.098 mg/kg 109 80 - 120

Cadmium 0.090 mg/kg 100 80 - 120

Copper 0.091 mg/kg 101 80 - 120

Lead 0.091 mg/kg 101 80 - 120

Nickel 0.090 mg/kg 100 80 - 120

Selenium 0.089 mg/kg 98.9 80 - 120

Silver 0.088 mg/kg 97.8 80 - 120

Zinc 0.091 mg/kg 101 80 - 120

#### AA07387

Arsenic 0.085 mg/kg 94.4 80 - 120



**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**FINAL RESULTS REPORT****Report Date :** 4/26/2024**Report Time :** 15:51**Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A)**Project Number:** 09D2436014**QC Report**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Barium	0.098		mg/kg			109	80 - 120		
Cadmium	0.088		mg/kg			97.8	80 - 120		
Copper	0.089		mg/kg			98.9	80 - 120		
Lead	0.087		mg/kg			96.7	80 - 120		
Nickel	0.089		mg/kg			98.9	80 - 120		
Selenium	0.090		mg/kg			100	80 - 120		
Silver	0.087		mg/kg			96.7	80 - 120		
Zinc	0.088		mg/kg			97.8	80 - 120		

**SAR-2761****AA07432****MB**

Calcium	0.013	mEq/L
Magnesium	0.066	mEq/L
Sodium	0.088	mEq/L
Sodium Adsorption Ratio	0	

**AA07433****LCS**

Calcium	11.048	ppm	110
Magnesium	10.681	ppm	107
Sodium	10.640	ppm	106

**AA07434**

Calcium	506.511	ppm	101
Magnesium	491.739	ppm	98.3
Sodium	491.343	ppm	98.3

**SVOC\_SOIL-2712****AA07342****MB**

1-methylnaphthalene	Not Detected	mg/kg
2-methylnaphthalene	Not Detected	mg/kg
Acenaphthene	Not Detected	mg/kg
Anthracene	Not Detected	mg/kg
Benz(a)anthracene	Not Detected	mg/kg
Benzo(a)pyrene	Not Detected	mg/kg
Benzo(b)fluoranthene	Not Detected	mg/kg
Benzo(k)fluoranthene	Not Detected	mg/kg
Chrysene	<0.010	mg/kg
Dibenzo(a,h)anthracene	Not Detected	mg/kg
Fluoranthene	Not Detected	mg/kg
Fluorene	Not Detected	mg/kg
Indeno(1,2,3-cd)pyrene	Not Detected	mg/kg
Naphthalene	Not Detected	mg/kg
Pyrene	Not Detected	mg/kg

**AA07343****LCS**

**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**FINAL RESULTS REPORT****Report Date :** 4/26/2024**Report Time :** 15:51**Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A)**Project Number:** 09D2436014**QC Report**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
1-methylnaphthalene	0.386		mg/kg			129			
2-methylnaphthalene	0.371		mg/kg			124			
Acenaphthene	0.374		mg/kg			125			
Anthracene	0.380		mg/kg			127			
Benz(a)anthracene	0.272		mg/kg			90.7			
Benzo(a)pyrene	0.351		mg/kg			117			
Benzo(b)fluoranthene	0.386		mg/kg			129			
Benzo(k)fluoranthene	0.238		mg/kg			79.3			
Chrysene	0.217		mg/kg			72.3			
Dibenzo(a,h)anthracene	0.339		mg/kg			113			
Fluoranthene	0.325		mg/kg			108			
Fluorene	0.370		mg/kg			123			
Indeno(1,2,3-cd)pyrene	0.328		mg/kg			109			
Naphthalene	0.376		mg/kg			125			
Pyrene	0.310		mg/kg			103			

**AA07344**

1-methylnaphthalene	0.363		mg/kg			121			
2-methylnaphthalene	0.346		mg/kg			115			
Acenaphthene	0.389		mg/kg			130			
Anthracene	0.363		mg/kg			121			
Benz(a)anthracene	0.262		mg/kg			87.3			
Benzo(a)pyrene	0.382		mg/kg			127			
Benzo(b)fluoranthene	0.384		mg/kg			128			
Benzo(k)fluoranthene	0.266		mg/kg			88.7			
Chrysene	0.241		mg/kg			80.3			
Dibenzo(a,h)anthracene	0.370		mg/kg			123			
Fluoranthene	0.302		mg/kg			101			
Fluorene	0.363		mg/kg			121			
Indeno(1,2,3-cd)pyrene	0.359		mg/kg			120			
Naphthalene	0.370		mg/kg			123			
Pyrene	0.288		mg/kg			96.0			

**VOC\_S-2755****AA07420****MB**

1,2,4-trimethylbenzene	Not Detected	mg/kg
1,3,5-trimethylbenzene	Not Detected	mg/kg
Benzene	<0.00242	mg/kg
Ethylbenzene	<0.005	mg/kg
m&p- xylene	<0.00427	mg/kg
o-xylene	<0.00227	mg/kg
Toluene	<0.00263	mg/kg
Xylenes, total	<0.00654	mg/kg

**AA07421****LCS**

**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**FINAL RESULTS REPORT****Report Date :** 4/26/2024**Report Time :** 15:51**Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A)**Project Number:** 09D2436014**QC Report**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
1,2,4-trimethylbenzene	0.05030		mg/kg			101			
1,3,5-trimethylbenzene	0.04752		mg/kg			95.0			
Benzene	0.04423		mg/kg			88.5			
Ethylbenzene	0.04835		mg/kg			96.7			
m&p- xylene	0.09563		mg/kg			95.6			
o-xylene	0.04675		mg/kg			93.5			
Toluene	0.04664		mg/kg			93.3			
Xylenes, total	0.14238		mg/kg			94.9			

**AA07422**

1,2,4-trimethylbenzene	0.05451		mg/kg			109			
1,3,5-trimethylbenzene	0.05139		mg/kg			103			
Benzene	0.04899		mg/kg			98.0			
Ethylbenzene	0.05154		mg/kg			103			
m&p- xylene	0.10288		mg/kg			103			
o-xylene	0.05010		mg/kg			100			
Toluene	0.05016		mg/kg			100			
Xylenes, total	0.15298		mg/kg			102			

QualifierExplanation

H1	Sample received outside of regulatory holding time.
H2	Sample analyzed outside of regulatory holding time due to a laboratory error.
P1	Sample received outside temperature requirements, 0-6°C.
P2	Sample received unpreserved.
P3	Broken or leaking sample container.
P4	Sample improperly collected
P5	Sample incorrectly preserved
B1	Blank failed high, indicating possible high bias in sample results.
B2	Blank failed low, indicating possible low bias in sample results.
MS	Matrix Spike / Matrix Spike Duplicate recovery and/or RPD limit exceeded, indicating potential matrix interference.
D1	Duplicate RPD limit exceeded due to low sample concentration.
D2	Duplicate RPD limit exceeded due to matrix interference.
S	Surrogate recovery failed, indicating potential matrix interference.
RL1	Reporting limits raised due to matrix interference.
RL2	Reporting limits raised due to limited sample.
U	Sample result less than method detection limit.
J	Sample result less than reporting limit but higher than method detection limit.
E	Electronic loss or corruption of data.
I	Subcontracted sample

**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

April 26, 2024

143 Diamond Ave  
Parachute, CO 81635  
970-285-2600  
averbonitz@caerusoilandgas.com

**Project Manager :** Jake J/Brett M/Blair R/Andy V**Project Name :** H26 596 Flowline (06A)**Project Number :** 09D2436014

Attached are the analytical results for H26 596 Flowline (06A) 09D2436014 received by Elevation Diagnostics, Division of Environmental Testing on April 18, 2024. This is associated with Elevation's number AA07298 .

The results were analyzed under the guidelines of various methods. These methods are identified in the report as follows: "SW" is referring to the EPA's SW-846 Compendium; "EPA" is referring to 40 CFR part 136; "HACH" is referring to a method which was validated by HACH®; "SM" is referring to a revision of the Standard Methods For the Examination of Water and Wastewater; and "ASTM" is referring to the standard test method set forth by ASTM International.

The analytical results in this report apply specifically to the samples listed in the attached Chain of Custody. This report may only be duplicated in full.

Any deviations to sample integrity, method specifications, or Elevation Diagnostics's standard operating procedures are documented in the report below.

Please contact us for any questions or comments concerning the content of this report.

Thank you,

Elevation Diagnostics, Division of Environmental Testing

Kristen Reichel  
Laboratory Director  
CSO,CCO

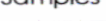
# Elevation Diagnostics

Client: CAERUS OIL + GAS  
Address: 143 Diamond Ave  
City/State/ZIP: Parachute, CO 81635  
Phone: 970-285-2653  
Project Contact: Jake J / Brett M / Blair R / Andy V

2115 North Scranton Street Suite 3040A Aurora, CO 80045  
800.440.5184

Project Name/Number: H2G 59G Flowline (06A) / 09D2436014  
Project Location: 39.58664, -108.129779  
Collector Name: Meredith Roberts / Garrett Green

[illegible]

Relinquished By: <u>MARK</u>		Relinquished By:		Relinquished By:		Scan to Deliver Samples  EFOR-008.005
Date/Time: <u>4/17/24</u> <del>10:25</del> <u>1425</u>		Date/Time:		Date/Time:		
Lab Use Only	Observed Temperature Upon Receipt: <u>3.3°C</u>		Samples Intact: <u>Yes</u> <u>No</u>		2024-04-18-002	
	Corrected Temperature Upon Receipt: <u>4.6°C</u>		pH Checked: <u>Yes</u> <u>No</u>		Lot/EQM Number:	
	Thermometer #: <u>ENXEQ248</u>		pH Adjusted: <u>Yes</u> <u>No</u>			
	Correction Factor: <u>+1.3°C</u>		PFAS rec'd on ice: <u>Yes</u> <u>No</u> <u>N/A</u>			
			Name/Lot Number of Adjustment: _____			



**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**Report Date :** 4/26/2024**Report Time :** 15:50**FINAL RESULTS REPORT****Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A) **Project Number:** 09D2436014

Sample ID	Customer ID	Collected		Dilution	Result	Units	RL	Method Ref.
Analyte Name		Analysis Start						Recovery
AA07298-1	20240414-H26-(STOCK01)	Collected : 04/17/2024		11:50				
SAR - Calcium		04/24/2024	11:49	10.00	1.950	mEq/L	0.000	EPA 6020B
SAR - Magnesium		04/24/2024	11:49	10.00	2.627	mEq/L	0.000	EPA 6020B
SAR - Sodium		04/24/2024	11:49	10.00	1.764	mEq/L	0.000	EPA 6020B
SAR - Sodium Adsorption Ratio		04/24/2024	11:49		1.166		0.000	EPA 6020B
Soil Conductivity		04/19/2024	14:15		0.379	mmhos/cm		USDA 60
AA07298-2	20240414-H26-(STOCK01)	Collected : 04/17/2024		11:50				
Chromium VI, Soil		04/22/2024	11:04		0.1779	mg/kg	0.080	EPA 7199
Hot Water Soluble Boron		04/24/2024	10:27		0.612	mg/kg	0.050	Boron Hot Water Extraction
pH, Soils Temperature		04/18/2024	12:55		21.8	°C		
pH, Soils		04/18/2024	12:55		8.90	S.U.	0.01	EPA 9045D
Total Metals, Soils - Arsenic		04/24/2024	13:02	10.00	14.560	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Barium		04/24/2024	13:02	10.00	894.196	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Cadmium		04/24/2024	13:02	10.00	0.477	mg/kg	0.001	EPA 3050B
Total Metals, Soils - Copper		04/24/2024	13:02	10.00	24.640	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Lead		04/24/2024	13:02	10.00	14.626	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Nickel		04/24/2024	13:02	10.00	16.240	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Selenium		04/24/2024	13:02	10.00	1.880	mg/kg	0.025	EPA 3050B
Total Metals, Soils - Silver		04/24/2024	13:02	10.00	<0.250 - RL1	mg/kg	0.250	EPA 3050B
Total Metals, Soils - Zinc		04/24/2024	13:02	10.00	51.563	mg/kg	0.025	EPA 3050B
AA07298-3	20240414-H26-(STOCK01)	Collected : 04/17/2024		11:50				
DRO & ORO, Soil - DRO		04/25/2024	11:40		Not Detected	mg/kg	100.00	EPA 8015D
DRO & ORO, Soil - ORO		04/25/2024	11:40		Not Detected	mg/kg	100.00	EPA 8015D
Gasoline Range Organics, Soil		04/23/2024	10:57		<0.26827	mg/kg	0.26827	EPA 8260
SVOC, Soils - 1-methylnaphthalene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - 2-methylnaphthalene		04/26/2024	00:00	10.00	<0.010	mg/kg	0.010	EPA 8270
SVOC, Soils - Acenaphthene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Anthracene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benz(a)anthracene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(a)pyrene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(b)fluoranthene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Benzo(k)fluoranthene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Chrysene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Dibenzo(a,h)anthracene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluoranthene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Fluorene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Indeno(1,2,3-cd)pyrene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Naphthalene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
SVOC, Soils - Pyrene		04/26/2024	00:00	10.00	Not Detected	mg/kg	0.010	EPA 8270
VOC, Soils - 1,2,4-trimethylbenzene		04/23/2024	13:46		Not Detected	mg/kg	0.00245	EPA 8260
VOC, Soils - 1,3,5-trimethylbenzene		04/23/2024	13:46		Not Detected	mg/kg	0.005	EPA 8260
VOC, Soils - Benzene		04/23/2024	13:46		<0.00242	mg/kg	0.00242	EPA 8260
VOC, Soils - Ethylbenzene		04/23/2024	13:46		<0.005	mg/kg	0.005	EPA 8260
VOC, Soils - m&p- xylene		04/23/2024	13:46		<0.00427	mg/kg	0.00427	EPA 8260

**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

**Report Date :** 4/26/2024**Report Time :** 15:50**FINAL RESULTS REPORT****Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A) **Project Number:** 09D2436014

Sample ID	Customer ID	Collected	Dilution	Result	Units	RL	Method Ref.
Analyte Name		Analysis Start					Recovery
VOC, Soils - o-xylene		04/23/2024	13:46	<0.00227	mg/kg	0.00227	EPA 8260
VOC, Soils - Toluene		04/23/2024	13:46	Not Detected	mg/kg	0.00263	EPA 8260
VOC, Soils - Xylenes, total		04/23/2024	13:46	<0.0654	mg/kg	0.00654	EPA 8260

**QC Report**

BORON-2705		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07295	0.406	0.050	mg/kg		0.404			0.49383	-15 - 15
MB AA07311	0.007		mg/kg						
LCS AA07312	0.988		mg/kg	1.000		98.8	80 - 120		
LCS AA07313	9.29		mg/kg	9.000		103	80 - 120		
CHROM_VI_SOIL-2706		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07295	0.1107	0.080	mg/kg		0.1092			1.3643	
MB AA07324	<0.080		mg/kg						
LCS AA07326	0.0403		mg/kg	0.0400		101			
LCS AA07327	0.0409		mg/kg	0.0400		102			
GRO_SOIL-2730		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07298	1.39508	0.26827	mg/kg		<0.26827			3.4490	
Matrix Spike AA07298	1.44404		mg/kg	2.150	<0.26827	67.2			
MB AA07395	<0.26827		mg/kg						
LCS AA07396	2.78125		mg/kg	2.150		129			
LCS AA07397	1.95391		mg/kg	2.150		90.9			
PH_S-2702		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07295	8.38	0.01	S.U.		8.39			0.1192605843	-5 - 5
LCS AA07305	6.88	0.01	S.U.	6.86		100	95 - 105		
LCS AA07306	6.89	0.01	S.U.	6.86		100	95 - 105		
SOIL_CONDUCTIVITY-2718		Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Analyte	Result								
DUP AA07337	378		µS/cm		384			1.5748	
LCS AA07362	9840		µS/cm	10000		98.4			
LCS AA07363	9740		µS/cm	10000		97.4			



## Division of Environmental Testing

2115 N Scranton St Suite 3040A

Aurora, CO 80045

800-440-5184

# FINAL RESULTS REPORT

Report Date : 4/26/2024

Report Time : 15:50

Project Manager: Jake J/Brett M/Blair R/Andy \ Project Name: H26 596 Flowline (06A)

Project Number: 09D2436014

## QC Report

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
DRO_ORO_SOIL-2708									

### AA07321

#### DUP

DRO	394.98				Not Detected			10.4	
ORO	360.30				Not Detected			29.6	

#### Matrix Spike

DRO	355.81		mg/kg	350	Not Detected	102			
ORO	267.30		mg/kg	350	Not Detected	76.4			

### AA07328

#### MB

DRO	Not Detected		mg/kg						
ORO	Not Detected		mg/kg						

### AA07329

#### LCS

DRO	357.09		mg/kg			102			
ORO	243.03		mg/kg			69.4			

### AA07330

DRO	387.40		mg/kg			111			
ORO	310.12		mg/kg			88.6			

## METALS\_S-2725

### AA07384

#### MB

Arsenic	0.000		mg/kg						
Barium	0.000		mg/kg						
Cadmium	0.000		mg/kg						
Copper	0.005		mg/kg						
Lead	0.000		mg/kg						
Nickel	0.000		mg/kg						
Selenium	0.000		mg/kg						
Silver	0.000		mg/kg						
Zinc	0.012		mg/kg						

### AA07386

#### LCS

Arsenic	0.087		mg/kg			96.7	80 - 120		
Barium	0.098		mg/kg			109	80 - 120		
Cadmium	0.090		mg/kg			100	80 - 120		
Copper	0.091		mg/kg			101	80 - 120		
Lead	0.091		mg/kg			101	80 - 120		
Nickel	0.090		mg/kg			100	80 - 120		
Selenium	0.089		mg/kg			98.9	80 - 120		
Silver	0.088		mg/kg			97.8	80 - 120		
Zinc	0.091		mg/kg			101	80 - 120		

### AA07387

Arsenic	0.085		mg/kg			94.4	80 - 120		
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# FINAL RESULTS REPORT

Report Date : 4/26/2024

Report Time : 15:50

Project Manager: Jake J/Brett M/Blair R/Andy \ Project Name: H26 596 Flowline (06A)

Project Number: 09D2436014

## QC Report

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
Barium	0.098		mg/kg			109	80 - 120		
Cadmium	0.088		mg/kg			97.8	80 - 120		
Copper	0.089		mg/kg			98.9	80 - 120		
Lead	0.087		mg/kg			96.7	80 - 120		
Nickel	0.089		mg/kg			98.9	80 - 120		
Selenium	0.090		mg/kg			100	80 - 120		
Silver	0.087		mg/kg			96.7	80 - 120		
Zinc	0.088		mg/kg			97.8	80 - 120		

## SAR-2761

### AA07432

#### MB

Calcium	0.013	mEq/L
Magnesium	0.066	mEq/L
Sodium	0.088	mEq/L
Sodium Adsorption Ratio	0	

### AA07433

#### LCS

Calcium	11.048	ppm	110
Magnesium	10.681	ppm	107
Sodium	10.640	ppm	106

### AA07434

Calcium	506.511	ppm	101
Magnesium	491.739	ppm	98.3
Sodium	491.343	ppm	98.3

## SVOC\_SOIL-2712

### AA07342

#### MB

1-methylnaphthalene	Not Detected	mg/kg
2-methylnaphthalene	Not Detected	mg/kg
Acenaphthene	Not Detected	mg/kg
Anthracene	Not Detected	mg/kg
Benz(a)anthracene	Not Detected	mg/kg
Benzo(a)pyrene	Not Detected	mg/kg
Benzo(b)fluoranthene	Not Detected	mg/kg
Benzo(k)fluoranthene	Not Detected	mg/kg
Chrysene	<0.010	mg/kg
Dibenzo(a,h)anthracene	Not Detected	mg/kg
Fluoranthene	Not Detected	mg/kg
Fluorene	Not Detected	mg/kg
Indeno(1,2,3-cd)pyrene	Not Detected	mg/kg
Naphthalene	Not Detected	mg/kg
Pyrene	Not Detected	mg/kg

### AA07343

#### LCS

**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

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**FINAL RESULTS REPORT****Report Date :** 4/26/2024**Report Time :** 15:50**Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A)**Project Number:** 09D2436014**QC Report**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
1-methylnaphthalene	0.386		mg/kg			129			
2-methylnaphthalene	0.371		mg/kg			124			
Acenaphthene	0.374		mg/kg			125			
Anthracene	0.380		mg/kg			127			
Benz(a)anthracene	0.272		mg/kg			90.7			
Benzo(a)pyrene	0.351		mg/kg			117			
Benzo(b)fluoranthene	0.386		mg/kg			129			
Benzo(k)fluoranthene	0.238		mg/kg			79.3			
Chrysene	0.217		mg/kg			72.3			
Dibenzo(a,h)anthracene	0.339		mg/kg			113			
Fluoranthene	0.325		mg/kg			108			
Fluorene	0.370		mg/kg			123			
Indeno(1,2,3-cd)pyrene	0.328		mg/kg			109			
Naphthalene	0.376		mg/kg			125			
Pyrene	0.310		mg/kg			103			

**AA07344**

1-methylnaphthalene	0.363		mg/kg			121			
2-methylnaphthalene	0.346		mg/kg			115			
Acenaphthene	0.389		mg/kg			130			
Anthracene	0.363		mg/kg			121			
Benz(a)anthracene	0.262		mg/kg			87.3			
Benzo(a)pyrene	0.382		mg/kg			127			
Benzo(b)fluoranthene	0.384		mg/kg			128			
Benzo(k)fluoranthene	0.266		mg/kg			88.7			
Chrysene	0.241		mg/kg			80.3			
Dibenzo(a,h)anthracene	0.370		mg/kg			123			
Fluoranthene	0.302		mg/kg			101			
Fluorene	0.363		mg/kg			121			
Indeno(1,2,3-cd)pyrene	0.359		mg/kg			120			
Naphthalene	0.370		mg/kg			123			
Pyrene	0.288		mg/kg			96.0			

**VOC\_S-2755****AA07420****MB**

1,2,4-trimethylbenzene	Not Detected	mg/kg
1,3,5-trimethylbenzene	Not Detected	mg/kg
Benzene	<0.00242	mg/kg
Ethylbenzene	<0.005	mg/kg
m&p- xylene	<0.00427	mg/kg
o-xylene	<0.00227	mg/kg
Toluene	<0.00263	mg/kg
Xylenes, total	<0.00654	mg/kg

**AA07421****LCS**



**Division of Environmental Testing**

2115 N Scranton St Suite 3040A

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**FINAL RESULTS REPORT****Report Date :** 4/26/2024**Report Time :** 15:50**Project Manager:** Jake J/Brett M/Blair R/Andy \ **Project Name:** H26 596 Flowline (06A)**Project Number:** 09D2436014**QC Report**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	% REC Limits	RPD	RPD Limit
1,2,4-trimethylbenzene	0.05030		mg/kg			101			
1,3,5-trimethylbenzene	0.04752		mg/kg			95.0			
Benzene	0.04423		mg/kg			88.5			
Ethylbenzene	0.04835		mg/kg			96.7			
m&p- xylene	0.09563		mg/kg			95.6			
o-xylene	0.04675		mg/kg			93.5			
Toluene	0.04664		mg/kg			93.3			
Xylenes, total	0.14238		mg/kg			94.9			

**AA07422**

1,2,4-trimethylbenzene	0.05451		mg/kg			109			
1,3,5-trimethylbenzene	0.05139		mg/kg			103			
Benzene	0.04899		mg/kg			98.0			
Ethylbenzene	0.05154		mg/kg			103			
m&p- xylene	0.10288		mg/kg			103			
o-xylene	0.05010		mg/kg			100			
Toluene	0.05016		mg/kg			100			
Xylenes, total	0.15298		mg/kg			102			

QualifierExplanation

H1	Sample received outside of regulatory holding time.
H2	Sample analyzed outside of regulatory holding time due to a laboratory error.
P1	Sample received outside temperature requirements, 0-6°C.
P2	Sample received unpreserved.
P3	Broken or leaking sample container.
P4	Sample improperly collected
P5	Sample incorrectly preserved
B1	Blank failed high, indicating possible high bias in sample results.
B2	Blank failed low, indicating possible low bias in sample results.
MS	Matrix Spike / Matrix Spike Duplicate recovery and/or RPD limit exceeded, indicating potential matrix interference.
D1	Duplicate RPD limit exceeded due to low sample concentration.
D2	Duplicate RPD limit exceeded due to matrix interference.
S	Surrogate recovery failed, indicating potential matrix interference.
RL1	Reporting limits raised due to matrix interference.
RL2	Reporting limits raised due to limited sample.
U	Sample result less than method detection limit.
J	Sample result less than reporting limit but higher than method detection limit.
E	Electronic loss or corruption of data.
I	Subcontracted sample