

# Canyon Creek NWSE Multi-Well Pad 1

NWSE Sec. 13-T1N-R69W

Facility ID: 415299

Remediation Project #: 26653

Form 19 Data Package

March 2023

Prepared by Tasman, Inc.



On behalf of Crestone Peak Resources Operating, LLC



# PHOTO LOG





<b>Equipment ID:</b>		<b>Equipment Type:</b>		<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Surrounding land use, N				<b>Notes/Conditions:</b> Surrounding land use, S			



<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Surrounding land use , E			

<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Surrounding land, W			

 <p style="text-align: center; color: yellow; font-size: 24px;">AST-B01 @ 3"</p> <p style="text-align: center; color: yellow; font-size: 48px;">X</p>			 <p style="text-align: center; color: yellow; font-size: 24px;">AST-B02 @ 3"</p> <p style="text-align: center; color: yellow; font-size: 48px;">X</p>		
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>
<b>Notes/Conditions:</b> Soil screening and sampling location, facing N			<b>Notes/Conditions:</b> Soil screening and sampling location, facing N		


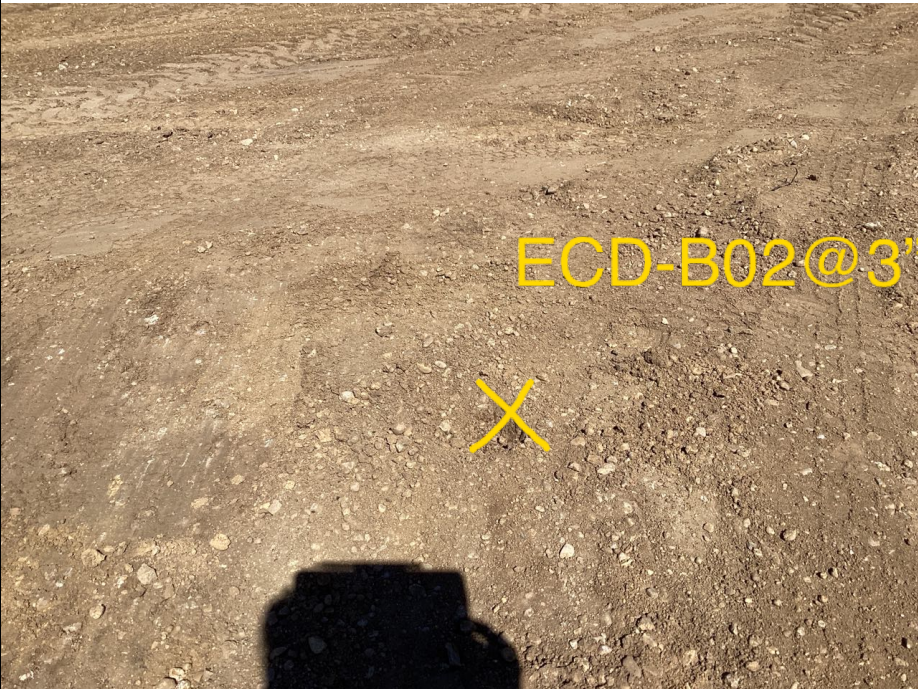


<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	

**Notes/Conditions:** Soil screening and sampling location, facing N

<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	

**Notes/Conditions:** Soil screening and sampling location, facing N

					
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>
<b>Notes/Conditions:</b> Soil screening location, facing N			<b>Notes/Conditions:</b> Soil screening location, facing N		



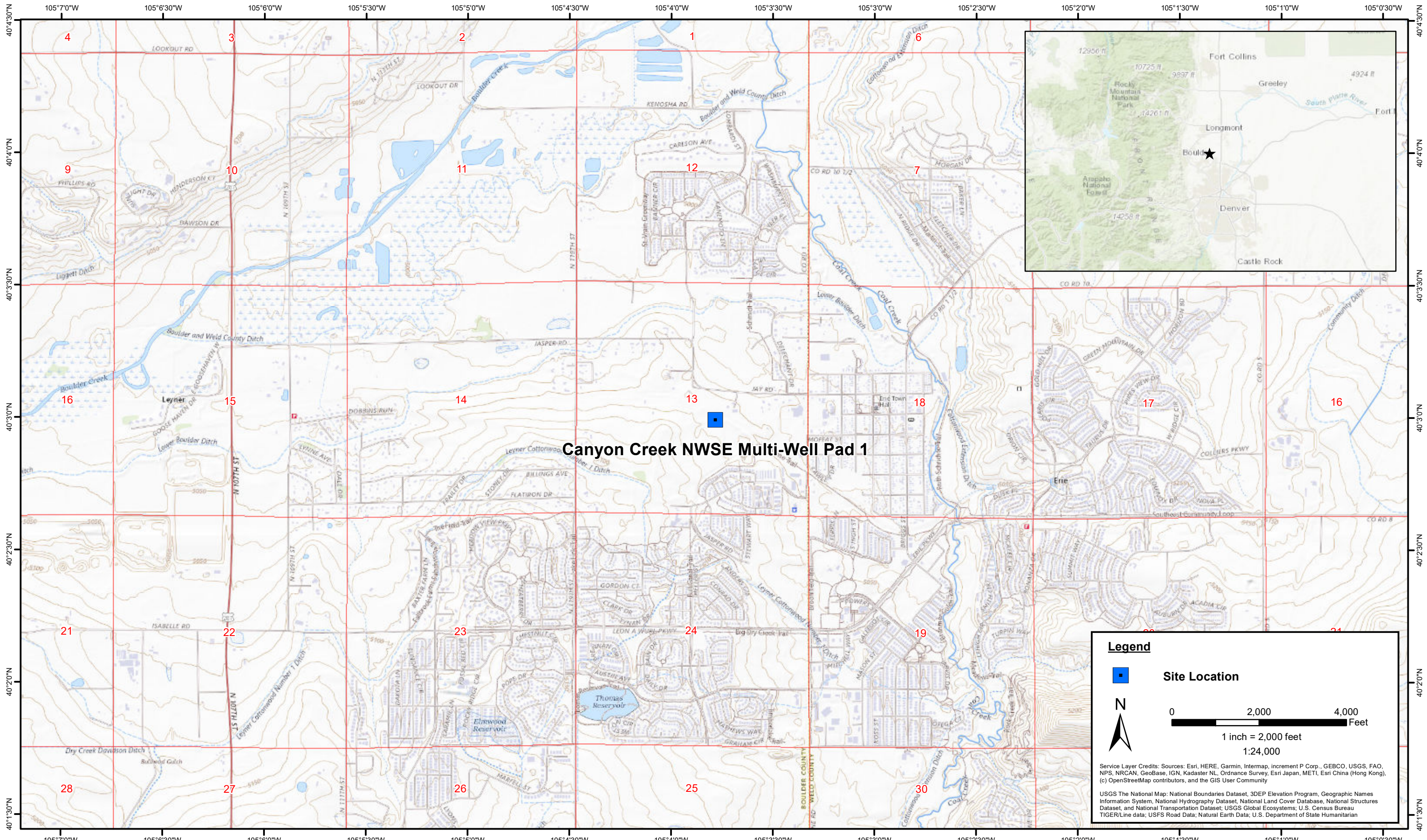
<b>Equipment ID:</b>		<b>Equipment Type:</b>		<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Soil screening and sampling location, facing E				<b>Notes/Conditions:</b> Soil screening and sampling location, facing E			



<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Soil screening and sampling location, facing SE			


<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Soil screening location, facing SE			


# FIGURES



**Canyon Creek NWSE Multi-Well Pad 1**

**Legend**

 **Site Location**

 N

0 2,000 4,000 Feet

1 inch = 2,000 feet  
1:24,000

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian

DATE: March 2023

DESIGNED BY: S. Vogt

DRAWN BY: J. Clonts

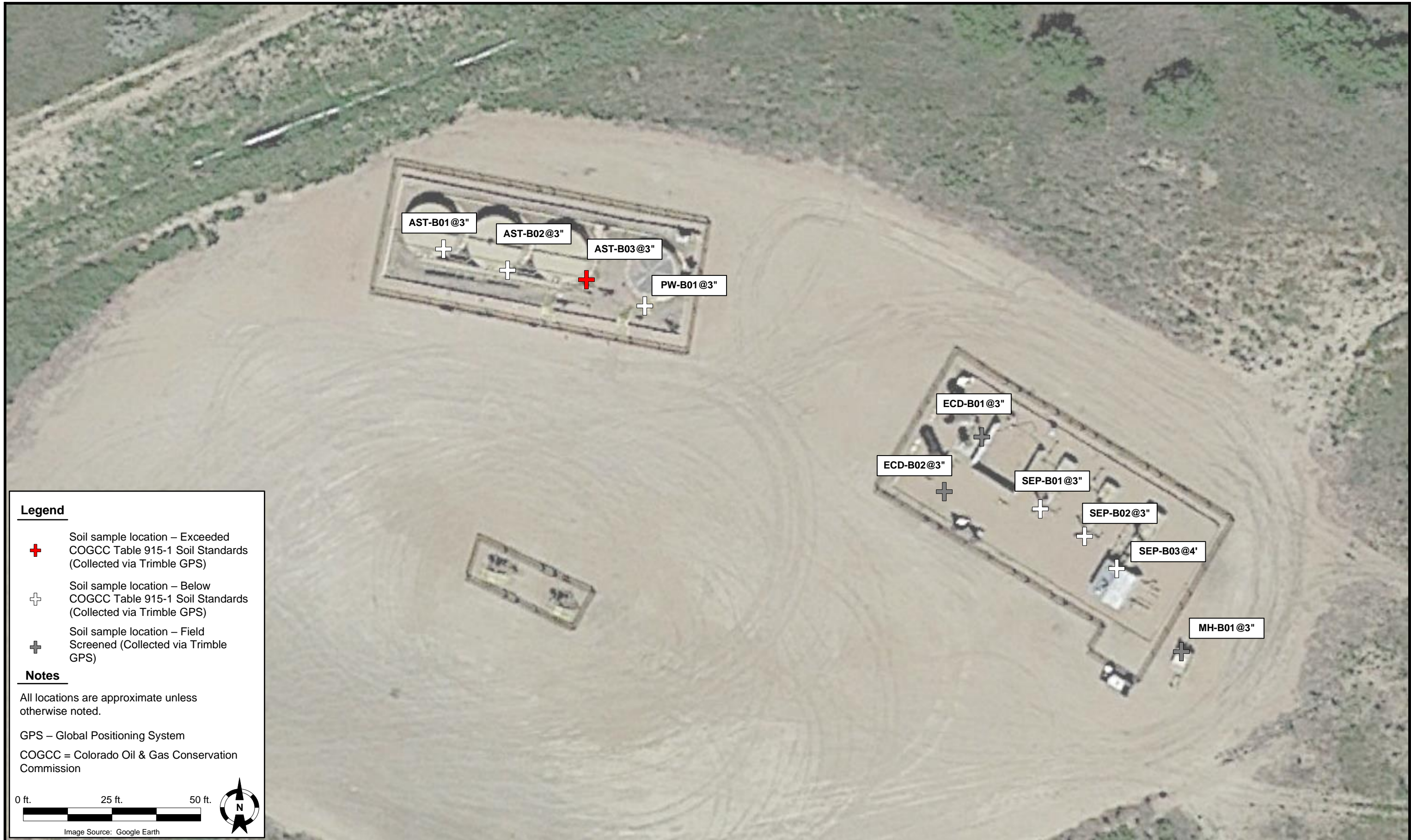


**Tasman, Inc.**  
6855 W. 119th Ave  
Broomfield, CO 80020

**Crestone Peak Resources Operating, LLC**  
**Canyon Creek NWSE Multi-Well Pad 1**  
NWSE Sec. 13-T1N-R69W  
Boulder County, Colorado

Site Location Map

Figure  
1



**Legend**

- + Soil sample location – Exceeded COGCC Table 915-1 Soil Standards (Collected via Trimble GPS)
- + Soil sample location – Below COGCC Table 915-1 Soil Standards (Collected via Trimble GPS)
- + Soil sample location – Field Screened (Collected via Trimble GPS)

**Notes**

All locations are approximate unless otherwise noted.

GPS – Global Positioning System

COGCC = Colorado Oil & Gas Conservation Commission

0 ft.      25 ft.      50 ft.



Image Source: Google Earth



DATE: March 21, 2023

DESIGNED BY: S. Vogt

DRAWN BY: S. Vogt



Tasman, Inc.  
6855 W. 119th Avenue  
Broomfield, Colorado 80020

**Crestone Peak Resources Operating, LLC**  
**Canyon Creek NWSE Multi-Well Pad 1**  
NWSE Sec. 13-T1N-R69W  
Boulder County, Colorado

Soil Sample Location Map

FIGURE  
2

# TABLES

**TABLE 1**  
**CANYON CREEK NWSE MULTI-WELL PAD 1**  
**SOIL SAMPLE LOCATIONS**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
AST-B01@3"	3"	03/09/2023	0.1	40.049852	-105.063232	1.1	Y
AST-B02@3"	3"	03/09/2023	0.6	40.049835	-105.063167	1.1	Y
AST-B03@3"	3"	03/09/2023	6.1	40.049828	-105.063088	1.1	Y
ECD-B01@3"	3"	03/09/2023	0.0	40.049706	-105.062690	1	N
ECD-B02@3"	3"	03/09/2023	0.2	40.049664	-105.062728	1	N
MH-B01@3"	3"	03/09/2023	0.0	40.049585	-105.062463	1	N
PW-B01@3"	3"	03/09/2023	0.0	40.049808	-105.063029	1	Y
SEP-B01@3"	3"	03/09/2023	0.0	40.049650	-105.062630	1.1	Y
SEP-B02@3"	3"	03/09/2023	2.9	40.049606	-105.062558	1.2	Y
SEP-B03@4'	4'	03/09/2023	0.0	40.049573	-105.062533	1.3	Y
SP-CS01	-	03/09/2023	0.0	-	-	-	Y

**Notes:**

PID = Photoionization Detector

ppm = parts per million

HC = Hydrocarbon

GPS = Global Positioning System

PDOP = Position Dilution of Precision

- = Not Applicable

**TABLE 2**  
**CANYON CREEK NWSE MULTI-WELL PAD 1**  
**SOIL ANALYTICAL DATA - VOCs**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**

Soil Sample Location	Depth	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
<b>COGCC Organic Compounds in Soils <sup>(1)</sup></b>			<b>0.0026</b>	<b>0.69</b>	<b>0.78</b>	<b>9.9</b>	<b>0.0038</b>	<b>500</b>			<b>0.0081</b>	<b>0.0087</b>
<b>COGCC Organic Compounds in Soils <sup>(2)</sup></b>			<b>1.2</b>	<b>490</b>	<b>5.8</b>	<b>58</b>	<b>2</b>	<b>500</b>			<b>30</b>	<b>27</b>
AST-B01@3"	3"	03/09/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
AST-B02@3"	3"	03/09/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
AST-B03@3"	3"	03/09/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
PW-B01@3"	3"	03/09/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SEP-B01@3"	3"	03/09/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SEP-B02@3"	3"	03/09/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SEP-B03@4'	4'	03/09/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS01	-	03/09/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050

**Notes:**

VOCs = Volatile Organic Compounds

(1) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

mg/kg = milligrams per kilogram

TVPH - GRO = Total Volatile Petroleum Hydrocarbons - Gasoline Range Organics

TEPH - DRO = Total Extractable Petroleum Hydrocarbons - Diesel Range Organics

TEPH - ORO = Total Extractable Petroleum Hydrocarbons - Oil Range Organics

1,2,4 - TMB = 1,2,4 - Trimethylbenzene

1,3,5 - TMB = 1,3,5 - Trimethylbenzene

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

**TABLE 3**  
**CANYON CREEK NWSE MULTI-WELL PAD 1**  
**SOIL ANALYTICAL DATA - PAHs**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**

Soil Sample Location	Depth	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
COGCC Organic Compounds in Soils <sup>(1)</sup>			0.55	5.8	0.011	0.3	2.9	0.24	9	0.96	8.9	0.54	0.98	0.006	0.019	1.3
COGCC Organic Compounds in Soils <sup>(2)</sup>			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
AST-B01@3"	3"	03/09/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST-B02@3"	3"	03/09/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST-B03@3"	3"	03/09/2023	<0.00500	0.00512	<b>0.0180</b>	0.0210	<0.00500	0.0118	0.0207	<0.00500	0.0547	0.0103	<0.00500	<b>0.0480</b>	<b>0.0477</b>	0.0887
PW-B01@3"	3"	03/09/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP-B01@3"	3"	03/09/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP-B02@3"	3"	03/09/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP-B03@4'	4'	03/09/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SP-CS01	-	03/09/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

**Notes:**

PAHs = Polycyclic Aromatic Hydrocarbons

(1) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

mg/kg = milligrams per kilogram

Benzo(a)A = Benzo(a)Anthracene

Benzo(b)F = Benzo(b)Fluoranthene

Benzo(k)F = Benzo(k)Fluoranthene

Benzo(a)P = Benzo(a)Pyrene

D (a,h) A = Dibenz(a,h)Anthracene

1,2,3-CD = Indeno(1,2,3-cd)Pyrene

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

**TABLE 4**  
**CANYON CREEK NWSE MULTI-WELL PAD 1**  
**SOIL ANALYTICAL DATA - METALS**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**

Soil Sample Location	Depth	Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
COGCC Metals in Soils <sup>(1)</sup>			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
COGCC Metals in Soils <sup>(2)</sup>			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
AST-B03@3"	3"	03/09/2023	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending

**Notes:**

(1) Standards for soil are taken from COGCC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from COGCC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory minimum detection limit

mg/kg = milligrams per kilogram

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations

Pending = Analytical results pending final laboratory reporting

**TABLE 5**  
**CANYON CREEK NWSE MULTI-WELL PAD 1**  
**SOIL ANALYTICAL DATA - SOIL RECLAMATION**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**



Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
<b>COGCC Soil Suitability for Reclamation<sup>(1)</sup></b>			<b>6 - 8.3</b>	<b>&lt; 6</b>	<b>&lt; 4</b>	<b>2</b>
AST-B01@3"	3"	03/09/2023	6.98	0.104	0.107	0.0878
AST-B02@3"	3"	03/09/2023	7.54	1.08	1.88	0.304
AST-B03@3"	3"	03/09/2023	7.53	0.610	0.609	0.556
PW-B01@3"	3"	03/09/2023	8.01	1.96	0.927	0.545
SEP-B01@3"	3"	03/09/2023	8.10	0.0781	0.194	0.0391
SEP-B02@3"	3"	03/09/2023	7.46	0.275	0.163	0.0244
SEP-B03@4'	4'	03/09/2023	8.07	0.274	0.256	0.106
SP-CS01	-	03/09/2023	8.00	0.272	0.309	0.0922

**Notes:**

(1) Standards for soil are taken from COGCC Table 915-1: Soil Suitability for Reclamation (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

mmhos/cm = millimhos per centimeter

mg/L = milligrams per liter

pH = Potential of Hydrogen

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

**BOLD** = Analytical result is in exceedance of COGCC Table 915-1: Soil Suitability for Reclamation Concentrations

# **LABORATORY ANALYTICAL DATA**

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 20, 2023

Sam Vogt  
Civitas Resources  
650 Southgate Drive  
Windsor, CO 80550

RE: Canyon Creek NWSE Multi Well Pad  
Work Order #2303247

Enclosed are the results of analyses for samples received by Summit Scientific on 03/09/23 18:06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury  
President



Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST-B01@3"	2303247-01	Soil	03/09/23 12:05	03/09/23 18:06
AST-B02@3"	2303247-02	Soil	03/09/23 12:06	03/09/23 18:06
AST-B03@3"	2303247-03	Soil	03/09/23 12:07	03/09/23 18:06
PW-B01@3"	2303247-04	Soil	03/09/23 12:08	03/09/23 18:06
SEP-B01@3"	2303247-05	Soil	03/09/23 12:09	03/09/23 18:06
SEP-B02@3"	2303247-06	Soil	03/09/23 12:10	03/09/23 18:06
SEP-B03@4'	2303247-07	Soil	03/09/23 12:11	03/09/23 18:06
SP-CS01	2303247-08	Soil	03/09/23 12:15	03/09/23 18:06

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page 1 of 1
2303247	

		<b>Send Data To:</b>	<b>Send Invoice To:</b>
Client: Civitas/Tasman	Project Manager: Sam Vogt, Jacob Evans		Company:
Address: 6855 W. 119th Ave	E-Mail: svogt@tasman-geo.com		Project Name/Location:
City/State/Zip: Broomfield, CO 80020	jevans@civiresources.com		AFE#: 22706, 22230
Phone: PM (610) 405-9078	Project Name: Canyon Creek NWSE Mult. Well Pad		PO/Billing Codes:
Sampler Name: Chris Girardi	Project Number: 26653		Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested							Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN	TMBs (1,2,4)&(1,3,5)	TPH	PAHs	ph, EC, SAR*	Boron**	
1	AST-B#1e3"	3/9/23	1205	2			X			X			X	X	X	X	X		
2	AST-B#2e3"		1206										X	X	X	X	X		
3	AST-B#3e3"		1207										X	X	X	X	X		
4	PW-B#1e3"		1208										X	X	X	X	X		
5	SEP-B#1e3"		1209										X	X	X	X	X		
6	SEP-B#2e3"		1210										X	X	X	X	X		
7	SEP-B#3e4"		1211										X	X	X	X	X		
8	SP-CS#1		1215										X	X	X	X	X		
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: <i>Chris Girardi</i>	Date/Time: 3/9/23 1450	Received by: Tasman Lockbox	Date/Time: 3/9/23 1450	TAT Business Days	Field DO	Notes: *Saturated Paste **Hot Water
				Same Day	Field EC	
Relinquished by: Tasman Lockbox	Date/Time: 3/23 1806	Received by: <i>[Signature]</i>	Date/Time: 3/23 1806	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: 9.9	Corrected Temperature: <i>[Signature]</i>	IR gun #: 1	HNO3 lot #:	Standard	X	Field Turb.

S<sub>2</sub>

S2 Work Order# 2303247

Sample Receipt Checklist

Client: Cintas Fasman Client Project ID: Canyon Creek NASE multi well pad

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other  Airbill #:

Matrix (Check all that apply) Air  Soil/Solid  Water  Other

Temp (°C) 9.9 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>MICE</i>
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

[Signature]  
Custodian Printed Name

3/9/23 1806  
Date/Time



Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B01@3"**  
**2303247-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGC0337	03/13/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0492	123 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0391	97.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0412	103 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0340	03/13/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	15.6	125 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B01@3"**  
**2303247-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0335	03/13/23	03/15/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0294	88.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0235	70.5 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0878</b>	0.0100	mg/L	1	BGC0346	03/13/23	03/14/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B01@3"**  
**2303247-01 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9.32	0.0529	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	
Magnesium	4.78	0.0529	"	"	"	"	"	"	
Sodium	1.56	0.0529	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.104	0.00100	units	1	BGC0579	03/18/23	03/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.6		%	1	BGC0311	03/10/23	03/13/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.107	0.0100	mmhos/cm	1	BGC0496	03/16/23	03/16/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.98		pH Units	1	BGC0495	03/16/23	03/16/23	EPA 9045D	

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B02@3"**  
**2303247-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGC0337	03/13/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0400	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0408	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGC0340	03/13/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.9	119 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B02@3"**  
**2303247-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0335	03/13/23	03/15/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0296	88.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0220	66.1 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.304</b>	0.0100	mg/L	1	BGC0346	03/13/23	03/14/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B02@3"**  
**2303247-02 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	163	0.0538	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	
Magnesium	43.5	0.0538	"	"	"	"	"	"	
Sodium	59.9	0.0538	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.08	0.00100	units	1	BGC0579	03/18/23	03/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.9		%	1	BGC0311	03/10/23	03/13/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.88	0.0100	mmhos/cm	1	BGC0496	03/16/23	03/16/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.54		pH Units	1	BGC0495	03/16/23	03/16/23	EPA 9045D	

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B03@3"**  
**2303247-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGC0337	03/13/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0439	110 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0393	98.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	102 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0340	03/13/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	16.3	130 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B03@3"**  
**2303247-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0335	03/13/23	03/15/23	EPA 8270D SIM	
<b>Anthracene</b>	<b>0.00512</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	<b>0.0180</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	<b>0.0118</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	<b>0.0210</b>	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
<b>Chrysene</b>	<b>0.0207</b>	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
<b>Fluoranthene</b>	<b>0.0547</b>	0.00500	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.0103</b>	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.0480</b>	0.00500	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.0477</b>	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.0887</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0252	75.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0202	60.6 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.556</b>	0.0100	mg/L	1	BGC0346	03/13/23	03/14/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>66.3</b>	0.0588	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**AST-B03@3"**  
**2303247-03 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	17.0	0.0588	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	
Sodium	21.5	0.0588	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.610	0.00100	units	1	BGC0579	03/18/23	03/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.0		%	1	BGC0311	03/10/23	03/13/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.609	0.0100	mmhos/cm	1	BGC0496	03/16/23	03/16/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.53		pH Units	1	BGC0495	03/16/23	03/16/23	EPA 9045D	

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**PW-B01@3"**  
**2303247-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGC0337	03/13/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0373	93.2 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0398	99.4 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0340	03/13/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	16.0	128 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**PW-B01@3"**  
**2303247-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0335	03/13/23	03/15/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0237	71.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0188	56.4 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.545</b>	0.0100	mg/L	1	BGC0346	03/13/23	03/14/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**PW-B01@3"**  
**2303247-04 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	68.3	0.0547	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	
Magnesium	20.6	0.0547	"	"	"	"	"	"	
Sodium	71.9	0.0547	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.96	0.00100	units	1	BGC0579	03/18/23	03/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.3		%	1	BGC0311	03/10/23	03/13/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.927	0.0100	mmhos/cm	1	BGC0496	03/16/23	03/16/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.01		pH Units	1	BGC0495	03/16/23	03/16/23	EPA 9045D	

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B01@3"**  
**2303247-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BGC0337	03/13/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0307	76.6 %	50-150	"	"	"	"	"	
Surrogate: Toluene-d8	0.0273	68.2 %	50-150	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0406	102 %	50-150	"	"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BGC0340	03/13/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	16.1	129 %	30-150	"	"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B01@3"**  
**2303247-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0335	03/13/23	03/15/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0255	76.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0211	63.2 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0391</b>	0.0100	mg/L	1	BGC0346	03/13/23	03/14/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B01@3"**  
**2303247-05 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	18.8	0.0524	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	
Magnesium	4.88	0.0524	"	"	"	"	"	"	
Sodium	1.47	0.0524	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0781	0.00100	units	1	BGC0579	03/18/23	03/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.4		%	1	BGC0311	03/10/23	03/13/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.194	0.0100	mmhos/cm	1	BGC0496	03/16/23	03/16/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10		pH Units	1	BGC0495	03/16/23	03/16/23	EPA 9045D	

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B02@3"**  
**2303247-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGC0337	03/13/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0464	116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0430	107 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0529	132 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGC0340	03/13/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	16.2	129 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B02@3"**  
**2303247-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0335	03/13/23	03/15/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0256	76.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0215	64.5 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0244</b>	0.0100	mg/L	1	BGC0346	03/13/23	03/14/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B02@3"**  
**2303247-06 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.3	0.0522	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	
Magnesium	5.22	0.0522	"	"	"	"	"	"	
Sodium	4.78	0.0522	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.275	0.00100	units	1	BGC0579	03/18/23	03/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.8		%	1	BGC0311	03/10/23	03/13/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.163	0.0100	mmhos/cm	1	BGC0496	03/16/23	03/16/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.46		pH Units	1	BGC0495	03/16/23	03/16/23	EPA 9045D	

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B03@4'**  
**2303247-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGC0337	03/13/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0422	106 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0363	90.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0340	03/13/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	16.5	132 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B03@4'**  
**2303247-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0335	03/13/23	03/15/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0242	72.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0190	57.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.106</b>	0.0100	mg/L	1	BGC0346	03/13/23	03/14/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SEP-B03@4'**  
**2303247-07 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.2	0.0542	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	
Magnesium	7.16	0.0542	"	"	"	"	"	"	
Sodium	6.61	0.0542	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.274	0.00100	units	1	BGC0579	03/18/23	03/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.2		%	1	BGC0311	03/10/23	03/13/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.256	0.0100	mmhos/cm	1	BGC0496	03/16/23	03/16/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.07		pH Units	1	BGC0495	03/16/23	03/16/23	EPA 9045D	

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Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SP-CS01**  
**2303247-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGC0337	03/13/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0475	119 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0439	110 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0340	03/13/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	16.2	130 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SP-CS01**  
**2303247-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0335	03/13/23	03/16/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0211	63.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0153	45.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0922</b>	0.0100	mg/L	1	BGC0346	03/13/23	03/14/23	EPA 6020B	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**SP-CS01**  
**2303247-08 (Soil)**

**Summit Scientific**

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.5	0.0539	mg/L dry	1	BGC0436	03/15/23	03/18/23	EPA 6020B	
Magnesium	6.17	0.0539	"	"	"	"	"	"	
Sodium	6.46	0.0539	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.272	0.00100	units	1	BGC0579	03/18/23	03/18/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.8		%	1	BGC0311	03/10/23	03/13/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.309	0.0100	mmhos/cm	1	BGC0496	03/16/23	03/16/23	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **03/09/23 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.00		pH Units	1	BGC0495	03/16/23	03/16/23	EPA 9045D	

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Civitas Resources  
650 Southgate Drive  
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Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

#### Batch BGC0337 - EPA 5030 Soil MS

##### Blank (BGC0337-BLK1)

Prepared: 03/13/23 Analyzed: 03/14/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0458		"	0.0400		114	50-150			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.3	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	50-150			

##### LCS (BGC0337-BS1)

Prepared: 03/13/23 Analyzed: 03/14/23

Benzene	0.0857	0.0020	mg/kg	0.100		85.7	70-130			
Toluene	0.0767	0.0050	"	0.100		76.7	70-130			
Ethylbenzene	0.0945	0.0050	"	0.100		94.5	70-130			
m,p-Xylene	0.188	0.010	"	0.200		94.0	70-130			
o-Xylene	0.0895	0.0050	"	0.100		89.5	70-130			
1,2,4-Trimethylbenzene	0.0866	0.0050	"	0.100		86.6	70-130			
1,3,5-Trimethylbenzene	0.0905	0.0050	"	0.100		90.5	70-130			
Naphthalene	0.0776	0.0038	"	0.100		77.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0382		"	0.0400		95.6	50-150			
Surrogate: Toluene-d8	0.0382		"	0.0400		95.6	50-150			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.3	50-150			

##### Matrix Spike (BGC0337-MS1)

Source: 2303247-01

Prepared: 03/13/23 Analyzed: 03/14/23

Benzene	0.0796	0.0020	mg/kg	0.100	ND	79.6	70-130			
Toluene	0.0717	0.0050	"	0.100	ND	71.7	70-130			
Ethylbenzene	0.0854	0.0050	"	0.100	ND	85.4	70-130			
m,p-Xylene	0.171	0.010	"	0.200	ND	85.5	70-130			
o-Xylene	0.0826	0.0050	"	0.100	ND	82.6	70-130			
1,2,4-Trimethylbenzene	0.0820	0.0050	"	0.100	ND	82.0	70-130			
1,3,5-Trimethylbenzene	0.0842	0.0050	"	0.100	ND	84.2	70-130			
Naphthalene	0.0752	0.0038	"	0.100	ND	75.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0389		"	0.0400		97.4	50-150			
Surrogate: Toluene-d8	0.0381		"	0.0400		95.3	50-150			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	50-150			

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Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BGC0337 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (BGC0337-MSD1)</b>	<b>Source: 2303247-01</b>			<b>Prepared: 03/13/23 Analyzed: 03/14/23</b>						
Benzene	0.0847	0.0020	mg/kg	0.100	ND	84.7	70-130	6.28	30	
Toluene	0.0756	0.0050	"	0.100	ND	75.6	70-130	5.33	30	
Ethylbenzene	0.0942	0.0050	"	0.100	ND	94.2	70-130	9.83	30	
m,p-Xylene	0.185	0.010	"	0.200	ND	92.6	70-130	7.97	30	
o-Xylene	0.0869	0.0050	"	0.100	ND	86.9	70-130	5.10	30	
1,2,4-Trimethylbenzene	0.0875	0.0050	"	0.100	ND	87.5	70-130	6.52	30	
1,3,5-Trimethylbenzene	0.0890	0.0050	"	0.100	ND	89.0	70-130	5.51	30	
Naphthalene	0.0814	0.0038	"	0.100	ND	81.4	70-130	8.05	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0380</i>		<i>"</i>	<i>0.0400</i>		<i>94.9</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>97.0</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0404</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>			

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Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

**Batch BGC0340 - EPA 3550A**

**Blank (BGC0340-BLK1)**

Prepared & Analyzed: 03/13/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	15.7		"	12.5		125		30-150			

**LCS (BGC0340-BS1)**

Prepared: 03/13/23 Analyzed: 03/14/23

C10-C28 (DRO)	447	50	mg/kg	500		89.4		70-130			
Surrogate: <i>o</i> -Terphenyl	15.9		"	12.5		128		30-150			

**Matrix Spike (BGC0340-MS1)**

Source: 2303247-01

Prepared: 03/13/23 Analyzed: 03/14/23

C10-C28 (DRO)	460	50	mg/kg	500	11.6	89.7		70-130			
Surrogate: <i>o</i> -Terphenyl	15.8		"	12.5		127		30-150			

**Matrix Spike Dup (BGC0340-MSD1)**

Source: 2303247-01

Prepared: 03/13/23 Analyzed: 03/14/23

C10-C28 (DRO)	464	50	mg/kg	500	11.6	90.6		70-130	0.956	20	
Surrogate: <i>o</i> -Terphenyl	16.6		"	12.5		133		30-150			

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Project: Canyon Creek NWSE Multi Well Pad

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Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

**Batch BGC0335 - EPA 5030 Soil MS**

**Blank (BGC0335-BLK1)**

Prepared: 03/13/23 Analyzed: 03/15/23

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
Surrogate: 2-Methylnaphthalene-d10	0.0303		"	0.0333		91.0		40-150			
Surrogate: Fluoranthene-d10	0.0281		"	0.0333		84.2		40-150			

**LCS (BGC0335-BS1)**

Prepared: 03/13/23 Analyzed: 03/15/23

Acenaphthene	0.0312	0.00500	mg/kg	0.0333		93.7		31-137			
Anthracene	0.0346	0.00500	"	0.0333		104		30-120			
Benzo (a) anthracene	0.0203	0.00500	"	0.0333		60.8		30-120			
Benzo (a) pyrene	0.0296	0.00500	"	0.0333		88.9		30-120			
Benzo (b) fluoranthene	0.0337	0.00500	"	0.0333		101		30-120			
Benzo (k) fluoranthene	0.0327	0.00500	"	0.0333		98.2		30-120			
Chrysene	0.0280	0.00500	"	0.0333		84.1		30-120			
Dibenz (a,h) anthracene	0.0354	0.00500	"	0.0333		106		30-120			
Fluoranthene	0.0291	0.00500	"	0.0333		87.4		30-120			
Fluorene	0.0257	0.00500	"	0.0333		77.0		30-120			
Indeno (1,2,3-cd) pyrene	0.0378	0.00500	"	0.0333		113		30-120			
Pyrene	0.0304	0.00500	"	0.0333		91.1		35-142			
1-Methylnaphthalene	0.0359	0.00500	"	0.0333		108		35-142			
2-Methylnaphthalene	0.0336	0.00500	"	0.0333		101		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0343		"	0.0333		103		40-150			
Surrogate: Fluoranthene-d10	0.0327		"	0.0333		98.0		40-150			

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650 Southgate Drive  
Windsor CO, 80550

Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BGC0335 - EPA 5030 Soil MS**

<b>Matrix Spike (BGC0335-MS1)</b>	<b>Source: 2303245-01</b>			Prepared: 03/13/23 Analyzed: 03/15/23					
Acenaphthene	0.0153	0.00500	mg/kg	0.0333	ND	45.9	31-137		
Anthracene	0.0217	0.00500	"	0.0333	ND	65.0	30-120		
Benzo (a) anthracene	0.0232	0.00500	"	0.0333	ND	69.5	30-120		
Benzo (a) pyrene	0.0163	0.00500	"	0.0333	ND	49.0	30-120		
Benzo (b) fluoranthene	0.0193	0.00500	"	0.0333	ND	58.0	30-120		
Benzo (k) fluoranthene	0.0157	0.00500	"	0.0333	ND	47.2	30-120		
Chrysene	0.0150	0.00500	"	0.0333	ND	45.0	30-120		
Dibenz (a,h) anthracene	0.0180	0.00500	"	0.0333	ND	54.1	30-120		
Fluoranthene	0.0212	0.00500	"	0.0333	ND	63.7	30-120		
Fluorene	0.0227	0.00500	"	0.0333	ND	68.2	30-120		
Indeno (1,2,3-cd) pyrene	0.0193	0.00500	"	0.0333	ND	57.8	30-120		
Pyrene	0.0208	0.00500	"	0.0333	ND	62.3	35-142		
1-Methylnaphthalene	0.0215	0.00500	"	0.0333	ND	64.6	15-130		
2-Methylnaphthalene	0.0205	0.00500	"	0.0333	ND	61.6	15-130		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0247</i>		<i>"</i>	<i>0.0333</i>		<i>74.1</i>	<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0217</i>		<i>"</i>	<i>0.0333</i>		<i>65.1</i>	<i>40-150</i>		

<b>Matrix Spike Dup (BGC0335-MSD1)</b>	<b>Source: 2303245-01</b>			Prepared: 03/13/23 Analyzed: 03/15/23					
Acenaphthene	0.0142	0.00500	mg/kg	0.0333	ND	42.5	31-137	7.73	30
Anthracene	0.0169	0.00500	"	0.0333	ND	50.8	30-120	24.6	30
Benzo (a) anthracene	0.0183	0.00500	"	0.0333	ND	54.9	30-120	23.4	30
Benzo (a) pyrene	0.0137	0.00500	"	0.0333	ND	41.1	30-120	17.4	30
Benzo (b) fluoranthene	0.0156	0.00500	"	0.0333	ND	46.7	30-120	21.6	30
Benzo (k) fluoranthene	0.0138	0.00500	"	0.0333	ND	41.5	30-120	12.9	30
Chrysene	0.0147	0.00500	"	0.0333	ND	44.0	30-120	2.28	30
Dibenz (a,h) anthracene	0.0175	0.00500	"	0.0333	ND	52.6	30-120	2.77	30
Fluoranthene	0.0168	0.00500	"	0.0333	ND	50.5	30-120	23.3	30
Fluorene	0.0173	0.00500	"	0.0333	ND	51.8	30-120	27.4	30
Indeno (1,2,3-cd) pyrene	0.0192	0.00500	"	0.0333	ND	57.5	30-120	0.451	30
Pyrene	0.0162	0.00500	"	0.0333	ND	48.5	35-142	25.0	30
1-Methylnaphthalene	0.0211	0.00500	"	0.0333	ND	63.3	15-130	2.03	50
2-Methylnaphthalene	0.0189	0.00500	"	0.0333	ND	56.6	15-130	8.49	50
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0202</i>		<i>"</i>	<i>0.0333</i>		<i>60.7</i>	<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0171</i>		<i>"</i>	<i>0.0333</i>		<i>51.4</i>	<i>40-150</i>		

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
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Project: Canyon Creek NWSE Multi Well Pad

Project Number: 26653  
Project Manager: Sam Vogt

**Reported:**  
03/20/23 19:43

**Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD	Limit	Notes
		Limit	Units			%REC	Limits			

**Batch BGC0346 - EPA 3050B**

**Blank (BGC0346-BLK1)**

Prepared: 03/13/23 Analyzed: 03/14/23

Boron ND 0.0100 mg/L

**LCS (BGC0346-BS1)**

Prepared: 03/13/23 Analyzed: 03/14/23

Boron 4.75 0.0100 mg/L 5.00 95.0 80-120

**Duplicate (BGC0346-DUP1)**

Source: 2303225-21

Prepared: 03/13/23 Analyzed: 03/14/23

Boron 0.393 0.0100 mg/L 0.409 3.93 20

**Matrix Spike (BGC0346-MS1)**

Source: 2303225-21

Prepared: 03/13/23 Analyzed: 03/14/23

Boron 5.13 0.0100 mg/L 5.00 0.409 94.3 75-125

**Matrix Spike Dup (BGC0346-MSD1)**

Source: 2303225-21

Prepared: 03/13/23 Analyzed: 03/14/23

Boron 5.18 0.0100 mg/L 5.00 0.409 95.4 75-125 1.01 25

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**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike	Source	%REC			RPD	Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BGC0436 - General Preparation**

**Blank (BGC0436-BLK1)**

Prepared: 03/15/23 Analyzed: 03/18/23

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

**LCS (BGC0436-BS1)**

Prepared: 03/15/23 Analyzed: 03/18/23

Calcium	5.05	0.0500	mg/L wet	5.00		101	70-130			
Magnesium	5.21	0.0500	"	5.00		104	70-130			
Sodium	5.23	0.0500	"	5.00		105	70-130			

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**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike	Source	%REC			RPD	Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BGC0311 - General Preparation**

Duplicate (BGC0311-DUP1)	Source: 2303238-01	Prepared: 03/10/23	Analyzed: 03/13/23		
% Solids	73.5	%	73.7	0.364	20

Summit Scientific

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Project: Canyon Creek NWSE Multi Well Pad

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**Reported:**  
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

**Batch BGC0496 - General Preparation**

**Blank (BGC0496-BLK1)**

Prepared & Analyzed: 03/16/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGC0496-BS1)**

Prepared & Analyzed: 03/16/23

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 102 95-105

**Duplicate (BGC0496-DUP1)**

Source: 2303245-01

Prepared & Analyzed: 03/16/23

Specific Conductance (EC) 0.742 0.0100 mmhos/cm 0.752 1.34 20

Summit Scientific

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**Reported:**  
03/20/23 19:43

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BGC0495 - General Preparation**

**LCS (BGC0495-BS1)**

Prepared & Analyzed: 03/16/23

pH	9.09	pH Units	9.18	99.0	95-105
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**Duplicate (BGC0495-DUP1)**

Source: 2303245-01

Prepared & Analyzed: 03/16/23

pH	7.98	pH Units	7.92	0.755	20
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### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference