

# **Alaux 26-3 & 4-0-26**

NENW Sec. 26-T1N-R68W

API #s: 014-19060 (26-3) & 014-20669 (4-0-26)

Remediation Project #: 29032

Form 19 Data Package

June 2023

Prepared by Tasman, Inc.





On behalf of Crestone Peak Resources Operating, LLC



# **PHOTO LOG**

					
<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 Facing North			<b>Notes/Conditions:</b> Surrounding Land Use Facing South		

					
<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 Facing West			<b>Notes/Conditions:</b> Surrounding Land Use Facing East		


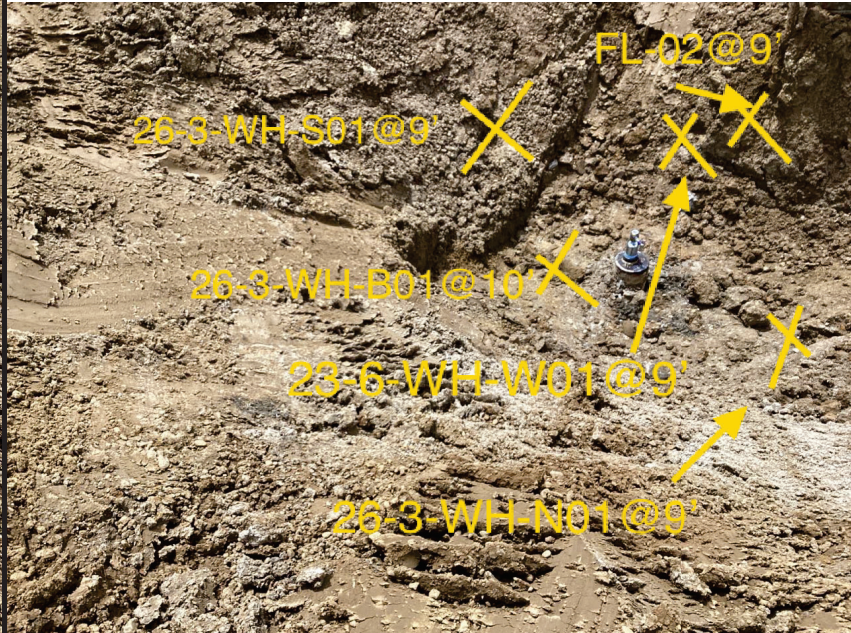


<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	

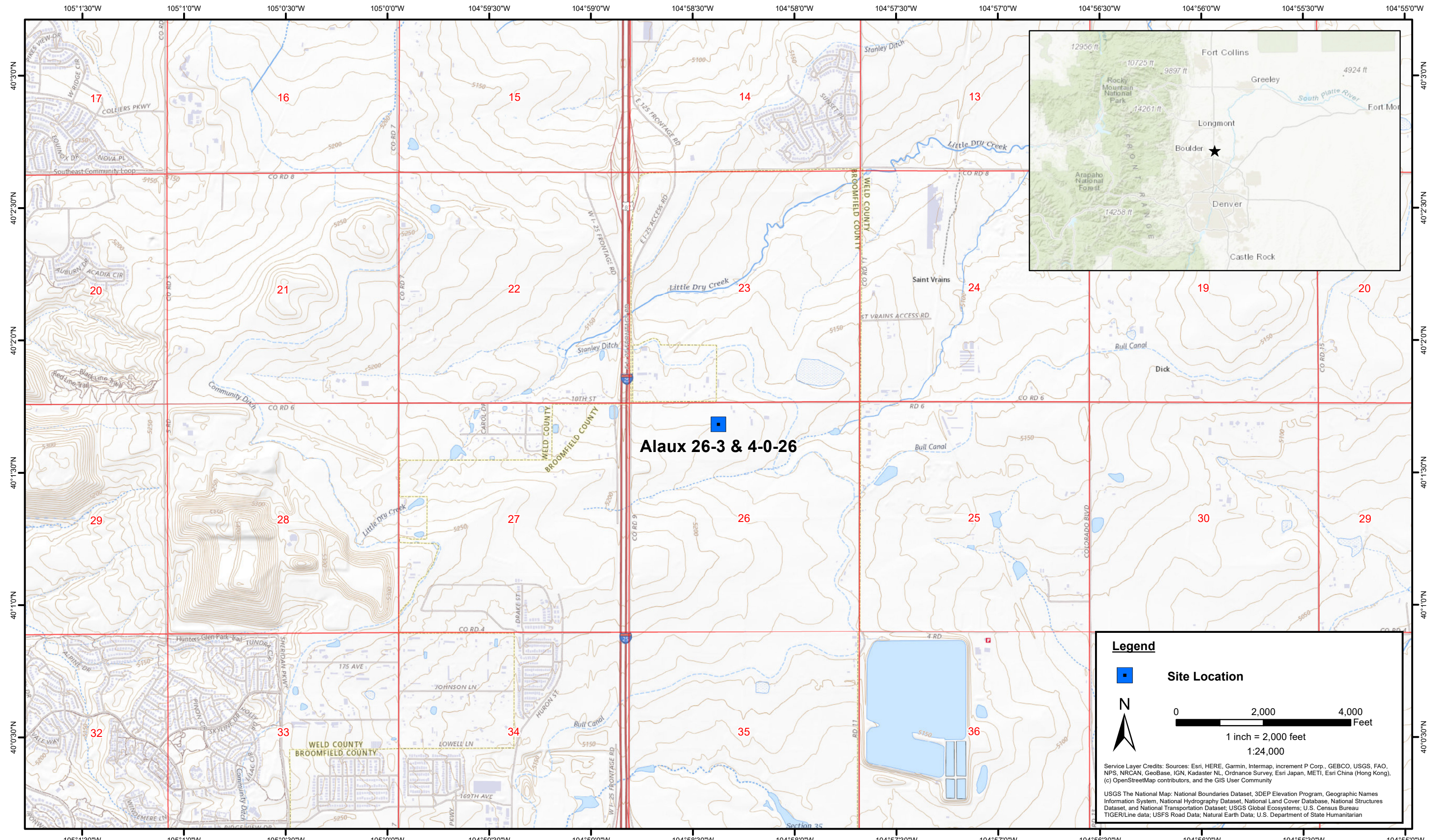
**Notes/Conditions:** Soil screening and sampling locations, facing S.

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

**Notes/Conditions:** Soil screening and sampling locations, 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 locations, facing NE			<b>Notes/Conditions:</b> Soil screening and sampling locations, facing SW		

# FIGURES



DATE: June 2023  
 DESIGNED BY: S. Vogt  
 DRAWN BY: J. Clonts

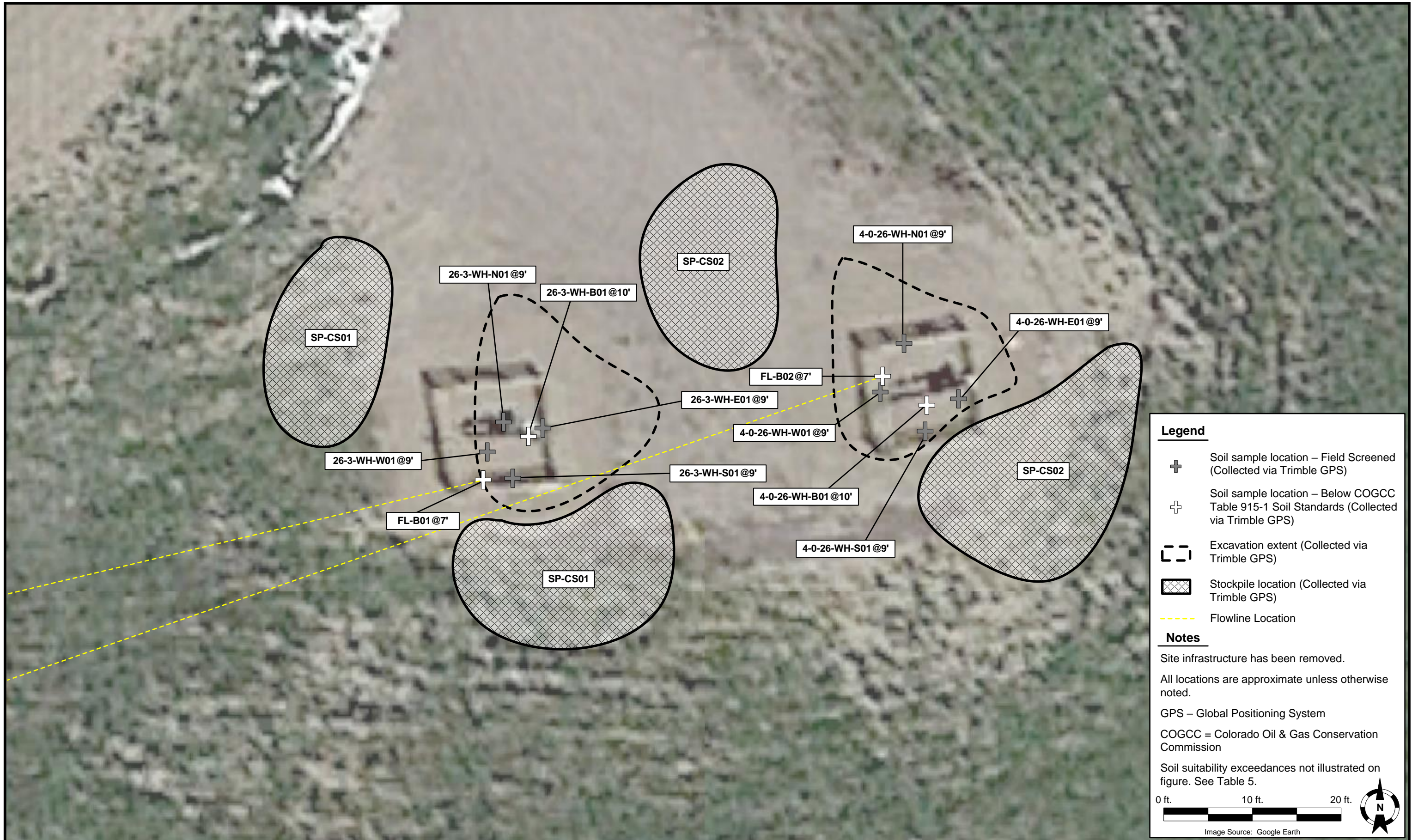


**Tasman, Inc.**  
 6855 W. 119th Ave  
 Broomfield, CO 80020

**Crestone Peak Resources Operating, LLC**  
**Alaux 26-3 & 4-0-26**  
 NENW Sec. 23-T1N-R68W  
 Broomfield County, Colorado

Site Location Map

Figure  
1



**Legend**

- Soil sample location – Field Screened (Collected via Trimble GPS)
- Soil sample location – Below COGCC Table 915-1 Soil Standards (Collected via Trimble GPS)
- Excavation extent (Collected via Trimble GPS)
- Stockpile location (Collected via Trimble GPS)
- Flowline Location

**Notes**

Site infrastructure has been removed.

All locations are approximate unless otherwise noted.

GPS – Global Positioning System

COGCC = Colorado Oil & Gas Conservation Commission

Soil suitability exceedances not illustrated on figure. See Table 5.

0 ft. 10 ft. 20 ft.

Image Source: Google Earth

DATE: June 19, 2023

DESIGNED BY: S. Vogt

DRAWN BY: S. Vogt

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

**Crestone Peak Resources Operating, LLC**  
**Alaux 26-3 & 4-0-26**  
 NENW Sec. 26-T1N-R68W  
 Broomfield County, Colorado

Soil Sample Location Map

FIGURE  
2

# TABLES

**TABLE 1**  
**AL AUX 26-3 4-0-26**  
**SOIL SAMPLE LOCATIONS**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
26-3-WH-B01@10'	10'	06/02/2023	0.5	40.028049	-104.973061	1.2	Y
26-3-WH-E01@9'	9'	06/02/2023	0.5	40.028051	-104.973056	1.1	N
26-3-WH-N01@9'	9'	06/02/2023	0.4	40.028054	-104.973071	1	N
26-3-WH-S01@9'	9'	06/02/2023	0.6	40.028036	-104.973068	1	N
26-3-WH-W01@9'	9'	06/02/2023	0.5	40.028044	-104.973077	1	N
4-0-26-WH-B01@10'	10'	06/02/2023	2.7	40.028057	-104.972895	1	Y
4-0-26-WH-E01@9'	9'	06/02/2023	0.8	40.028060	-104.972888	1	N
4-0-26-WH-N01@9'	9'	06/02/2023	0.9	40.028078	-104.972910	1	N
4-0-26-WH-S01@9'	9'	06/02/2023	0.5	40.028053	-104.972901	1	N
4-0-26-WH-W01@9'	9'	06/02/2023	1.2	40.028063	-104.972919	1.1	N
FL-B01@7'	7'	06/02/2023	1.1	40.028065	-104.972917	1	Y
FL-B02@7'	7'	06/02/2023	0.8	40.028032	-104.973114	1.1	Y
SP-CS-01	-	06/02/2023	1.1	40.028085	-104.973142	-	Y
SP-CS-02	-	06/02/2023	2.1	40.028047	-104.972847	-	Y

**Notes:**

PID = Photoionization Detector

ppm = parts per million

HC = Hydrocarbon

GPS = Global Positioning System

PDOP = Position Dilution of Precision

- = Not Applicable

**TABLE 2**  
**AL AUX 26-3 4-0-26**  
**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>
26-3-WH-B01@10'	10'	06/02/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
4-0-26-WH-B01@10'	10'	06/02/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
FL-B01@7'	7'	06/02/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
FL-B02@7'	7'	06/02/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS-01	-	06/02/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS-02	-	06/02/2023	<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**  
**AL AUX 26-3 4-0-26**  
**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)
<b>COGCC Organic Compounds in Soils <sup>(1)</sup></b>			<b>0.55</b>	<b>5.8</b>	<b>0.011</b>	<b>0.3</b>	<b>2.9</b>	<b>0.24</b>	<b>9</b>	<b>0.96</b>	<b>8.9</b>	<b>0.54</b>	<b>0.98</b>	<b>0.006</b>	<b>0.019</b>	<b>1.3</b>
<b>COGCC Organic Compounds in Soils <sup>(2)</sup></b>			<b>360</b>	<b>1,800</b>	<b>1.1</b>	<b>1.1</b>	<b>11</b>	<b>0.11</b>	<b>110</b>	<b>0.11</b>	<b>240</b>	<b>240</b>	<b>1.1</b>	<b>18</b>	<b>24</b>	<b>180</b>
26-3-WH-B01@10'	10'	06/02/2023	<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
4-0-26-WH-B01@10'	10'	06/02/2023	<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
FL-B01@7'	7'	06/02/2023	<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
FL-B02@7'	7'	06/02/2023	<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-CS-01	-	06/02/2023	<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-CS-02	-	06/02/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<b>0.0247</b>	0.00791	<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**  
**AL AUX 26-3 4-0-26**



**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>
26-3-WH-B01@10'	10'	06/02/2023	7.93	<b>6.91</b>	1.44	0.387
4-0-26-WH-B01@10'	10'	06/02/2023	8.05	<b>13.0</b>	<b>6.33</b>	0.692
FL-B01@7'	7'	06/02/2023	7.34	0.167	2.36	0.826
FL-B02@7'	7'	06/02/2023	7.46	1.40	2.05	0.705
SP-CS-01	-	06/02/2023	7.55	2.09	2.69	0.470
SP-CS-02	-	06/02/2023	7.56	<b>8.85</b>	<b>5.31</b>	0.840

**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

**Average background concentration**

\* Result exceeded the COGCC Table 915-1 standard, but was within site-specific background concentrations

# **LABORATORY ANALYTICAL DATA**

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 19, 2023

Sam Vogt

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Civitas - Alaux 4-0-26 & 26-3

Work Order #2306054

Enclosed are the results of analyses for samples received by Summit Scientific on 06/02/23 17:38. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury

President



Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
4-0-26-WH-B01@10'	2306054-01	Soil	06/02/23 11:20	06/02/23 17:38
FL-B01@7'	2306054-02	Soil	06/02/23 11:30	06/02/23 17:38
FL-B02@7'	2306054-03	Soil	06/02/23 12:41	06/02/23 17:38
26-3-WH-B01@10'	2306054-04	Soil	06/02/23 12:44	06/02/23 17:38
SP-CS-01	2306054-05	Soil	06/02/23 12:02	06/02/23 17:38
SP-CS-02	2306054-06	Soil	06/02/23 12:08	06/02/23 17:38

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.*

		<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: svgot@tasman-geo.com; jevans@civiresources.com		Project Name/Location:
City/State/Zip: Broomfield, CO 80020	Project Name: <i>Alex 04-0-26 &amp; 26-3</i>		AFE#: <i>4-0-26 → 22442 26-3 → 22440</i>
Phone: PM (610) 405-9078	Project Number:	PO/Billing Codes: <i>8306.24</i>	
Sampler Name: <i>Chris Girardi + Daniel Hense</i>	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	1,2,4 + 1,3,5 TMBS	TPH (GRO, DRO, ORO)	PAHs	pH, EC, SAR	Boron		Metals	
1	<i>4-0-26-WH-B01 @ 10'</i>	<i>6/2/23</i>	<i>11:20</i>	<i>2</i>			<i>X</i>			<i>X</i>			<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>		pH, EC, SAR by Saturated paste preparation method Boron by Hot Water Soluble preparation Method Table 915 Metals - As, Ba, Cd, Cu, Pb, Ni, Se, Ag, Zn, Cr VI
2	<i>FL-B01 @ 7'</i>	<i>6/2/23</i>	<i>11:30</i>	<i>↓</i>									<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
3	<i>FL-B02 @ 7'</i>	<i>↓</i>	<i>12:41</i>	<i>↓</i>									<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
4	<i>26-3-WH-B01 @ 10'</i>	<i>↓</i>	<i>12:44</i>	<i>↓</i>									<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
5	<i>SP-CS-01</i>	<i>↓</i>	<i>12:02</i>	<i>↓</i>									<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
6	<i>SP-CS-02</i>	<i>↓</i>	<i>12:08</i>	<i>↓</i>									<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: <i>Chris Girardi</i>	Date/Time: <i>6/2/23 1700</i>	Received by: <i>Tasman Lockbox</i>	Date/Time: <i>6/2/23 1700</i>	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: <i>Tasman Lockbox</i>	Date/Time: <i>6/2/23 1738</i>	Received by: <i>[Signature]</i>	Date/Time: <i>6/2/23 1738</i>	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	<i>X</i> Field Turb.	
Temperature Upon Receipt: <i>9.1</i>	Corrected Temperature: <i>6</i>	IR gun #:	<i>1</i>	HNO3 lot #:		

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2306054

Client: Cintas/Asman Client Project ID: Alaux 04.0.20/20-3

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

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

Temp (°C) 9.1 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> NOTE: 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"/>	
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on JLOE
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 checked="" type="checkbox"/>	<input 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? If yes, contact client and note in narrative.	<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.

AS  
Custodian Printed Name

6/2/23  
Date/Time



Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**4-0-26-WH-B01@10'**  
**2306054-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGF0185	06/06/23	06/07/23	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: **06/02/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0521	130 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0352	87.9 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0423	106 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGF0191	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.1	97.0 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**4-0-26-WH-B01@10'**  
**2306054-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0243	06/07/23	06/07/23	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: **06/02/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0254	76.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0266	79.8 %	40-150		"	"	"	"	

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

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.692</b>	0.0100	mg/L	1	BGF0374	06/09/23	06/11/23	EPA 6020B	

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

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**4-0-26-WH-B01@10'**  
**2306054-01 (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	484	0.0622	mg/L dry	1	BGF0392	06/10/23	06/16/23	EPA 6020B	
Magnesium	126	0.0622	"	"	"	"	"	"	
Sodium	1240	0.0622	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	13.0	0.00100	units	1	BGF0627	06/17/23	06/17/23	Calculation	

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

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.3		%	1	BGF0368	06/09/23	06/09/23	Calculation	

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

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.33	0.0100	mmhos/cm	1	BGF0399	06/11/23	06/11/23	EPA 120.1	

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

Date Sampled: **06/02/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.05		pH Units	1	BGF0398	06/11/23	06/11/23	EPA 9045D	

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**FL-B01@7'**  
**2306054-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGF0185	06/06/23	06/07/23	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: **06/02/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0499	125 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0350	87.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0418	104 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGF0191	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.1	88.7 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**FL-B01@7'**  
**2306054-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0243	06/07/23	06/07/23	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: **06/02/23 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0222	66.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0198	59.4 %	40-150		"	"	"	"	

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

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.826</b>	0.0100	mg/L	1	BGF0374	06/09/23	06/11/23	EPA 6020B	

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

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**FL-B01@7'**  
**2306054-02 (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	624	0.0651	mg/L dry	1	BGF0392	06/10/23	06/16/23	EPA 6020B	
Magnesium	77.6	0.0651	"	"	"	"	"	"	
Sodium	16.6	0.0651	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.167	0.00100	units	1	BGF0627	06/17/23	06/17/23	Calculation	

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

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	76.8		%	1	BGF0368	06/09/23	06/09/23	Calculation	

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

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.36	0.0100	mmhos/cm	1	BGF0399	06/11/23	06/11/23	EPA 120.1	

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

Date Sampled: **06/02/23 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.34		pH Units	1	BGF0398	06/11/23	06/11/23	EPA 9045D	

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**FL-B02@7'**  
**2306054-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGF0185	06/06/23	06/07/23	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: **06/02/23 12:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0518	130 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0355	88.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0422	105 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGF0191	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.5	92.0 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**FL-B02@7'**  
**2306054-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0243	06/07/23	06/07/23	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: **06/02/23 12:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0224	67.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0214	64.3 %	40-150		"	"	"	"	

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

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.705</b>	0.0100	mg/L	1	BGF0374	06/09/23	06/11/23	EPA 6020B	

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

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**FL-B02@7'**  
**2306054-03 (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
Calcium	354	0.0614	mg/L dry	1	BGF0392	06/10/23	06/16/23	EPA 6020B	
Magnesium	74.8	0.0614	"	"	"	"	"	"	
Sodium	111	0.0614	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.40	0.00100	units	1	BGF0627	06/17/23	06/17/23	Calculation	

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

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.4		%	1	BGF0368	06/09/23	06/09/23	Calculation	

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

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.05	0.0100	mmhos/cm	1	BGF0399	06/11/23	06/11/23	EPA 120.1	

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

Date Sampled: **06/02/23 12:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.46		pH Units	1	BGF0398	06/11/23	06/11/23	EPA 9045D	

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**26-3-WH-B01@10'**  
**2306054-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGF0185	06/06/23	06/07/23	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: **06/02/23 12:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0514	128 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0355	88.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0430	107 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGF0191	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.6	93.2 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**26-3-WH-B01@10'**  
**2306054-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0243	06/07/23	06/07/23	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: **06/02/23 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0248	74.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0243	72.8 %	40-150		"	"	"	"	

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

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.387</b>	0.0100	mg/L	1	BGF0374	06/09/23	06/11/23	EPA 6020B	

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

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**26-3-WH-B01@10'**  
**2306054-04 (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	82.3	0.0645	mg/L dry	1	BGF0392	06/10/23	06/16/23	EPA 6020B	
Magnesium	20.2	0.0645	"	"	"	"	"	"	
Sodium	270	0.0645	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.91	0.00100	units	1	BGF0627	06/17/23	06/17/23	Calculation	

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

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	77.5		%	1	BGF0368	06/09/23	06/09/23	Calculation	

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

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.44	0.0100	mmhos/cm	1	BGF0399	06/11/23	06/11/23	EPA 120.1	

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

Date Sampled: **06/02/23 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.93		pH Units	1	BGF0398	06/11/23	06/11/23	EPA 9045D	

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**SP-CS-01**  
**2306054-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGF0185	06/06/23	06/07/23	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: **06/02/23 12:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0485	121 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0353	88.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0430	107 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGF0191	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.4	90.9 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**SP-CS-01**  
**2306054-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0243	06/07/23	06/07/23	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: **06/02/23 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0233	70.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0222	66.5 %	40-150		"	"	"	"	

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

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.470</b>	0.0100	mg/L	1	BGF0374	06/09/23	06/11/23	EPA 6020B	

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

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**SP-CS-01**  
**2306054-05 (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	508	0.0619	mg/L dry	1	BGF0392	06/10/23	06/16/23	EPA 6020B	
Magnesium	59.3	0.0619	"	"	"	"	"	"	
Sodium	187	0.0619	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.09	0.00100	units	1	BGF0627	06/17/23	06/17/23	Calculation	

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

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.7		%	1	BGF0368	06/09/23	06/09/23	Calculation	

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

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.69	0.0100	mmhos/cm	1	BGF0399	06/11/23	06/11/23	EPA 120.1	

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

Date Sampled: **06/02/23 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.55		pH Units	1	BGF0398	06/11/23	06/11/23	EPA 9045D	

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**SP-CS-02**  
**2306054-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGF0185	06/06/23	06/07/23	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: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0495	124 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0349	87.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0425	106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0191	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	11.5	92.1 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**SP-CS-02**  
**2306054-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0243	06/07/23	06/08/23	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	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.0247</b>	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00791</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0202	60.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0182	54.6 %	40-150		"	"	"	"	

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

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.840</b>	0.0100	mg/L	1	BGF0374	06/09/23	06/11/23	EPA 6020B	

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

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**SP-CS-02**  
**2306054-06 (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	536	0.0625	mg/L dry	1	BGF0392	06/10/23	06/16/23	EPA 6020B	
Magnesium	156	0.0625	"	"	"	"	"	"	
Sodium	905	0.0625	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.85	0.00100	units	1	BGF0627	06/17/23	06/17/23	Calculation	

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

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.0		%	1	BGF0368	06/09/23	06/09/23	Calculation	

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

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.31	0.0100	mmhos/cm	1	BGF0399	06/11/23	06/11/23	EPA 120.1	

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

Date Sampled: **06/02/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.56		pH Units	1	BGF0398	06/11/23	06/11/23	EPA 9045D	

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

### 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 BGF0185 - EPA 5030 Soil MS

##### Blank (BGF0185-BLK1)

Prepared & Analyzed: 06/06/23

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	0.0582		"	0.0400		146	50-150			
Surrogate: Toluene-d8	0.0372		"	0.0400		93.1	50-150			
Surrogate: 4-Bromofluorobenzene	0.0429		"	0.0400		107	50-150			

##### LCS (BGF0185-BS1)

Prepared & Analyzed: 06/06/23

Benzene	0.0704	0.0020	mg/kg	0.0750		93.9	70-130			
Toluene	0.0813	0.0050	"	0.0750		108	70-130			
Ethylbenzene	0.0797	0.0050	"	0.0750		106	70-130			
m,p-Xylene	0.142	0.010	"	0.150		94.6	70-130			
o-Xylene	0.0696	0.0050	"	0.0750		92.8	70-130			
1,2,4-Trimethylbenzene	0.0619	0.0050	"	0.0750		82.5	70-130			
1,3,5-Trimethylbenzene	0.0770	0.0050	"	0.0750		103	70-130			
Naphthalene	0.0597	0.0038	"	0.0750		79.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0514		"	0.0400		129	50-150			
Surrogate: Toluene-d8	0.0382		"	0.0400		95.6	50-150			
Surrogate: 4-Bromofluorobenzene	0.0459		"	0.0400		115	50-150			

##### Matrix Spike (BGF0185-MS1)

Source: 2306023-01

Prepared: 06/06/23 Analyzed: 06/07/23

Benzene	0.0667	0.0020	mg/kg	0.0750	ND	88.9	70-130			
Toluene	0.0806	0.0050	"	0.0750	ND	107	70-130			
Ethylbenzene	0.0786	0.0050	"	0.0750	ND	105	70-130			
m,p-Xylene	0.140	0.010	"	0.150	ND	93.4	70-130			
o-Xylene	0.0690	0.0050	"	0.0750	ND	92.0	70-130			
1,2,4-Trimethylbenzene	0.0614	0.0050	"	0.0750	ND	81.9	70-130			
1,3,5-Trimethylbenzene	0.0766	0.0050	"	0.0750	ND	102	70-130			
Naphthalene	0.0591	0.0038	"	0.0750	ND	78.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0496		"	0.0400		124	50-150			
Surrogate: Toluene-d8	0.0388		"	0.0400		96.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0450		"	0.0400		113	50-150			

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**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		

**Batch BGF0185 - EPA 5030 Soil MS**

Matrix Spike Dup (BGF0185-MSD1)	Source: 2306023-01			Prepared: 06/06/23		Analyzed: 06/07/23				
Benzene	0.0708	0.0020	mg/kg	0.0750	ND	94.4	70-130	5.98	30	
Toluene	0.0844	0.0050	"	0.0750	ND	113	70-130	4.62	30	
Ethylbenzene	0.0902	0.0050	"	0.0750	ND	120	70-130	13.8	30	
m,p-Xylene	0.161	0.010	"	0.150	ND	107	70-130	13.6	30	
o-Xylene	0.0788	0.0050	"	0.0750	ND	105	70-130	13.2	30	
1,2,4-Trimethylbenzene	0.0709	0.0050	"	0.0750	ND	94.5	70-130	14.3	30	
1,3,5-Trimethylbenzene	0.0879	0.0050	"	0.0750	ND	117	70-130	13.8	30	
Naphthalene	0.0744	0.0038	"	0.0750	ND	99.2	70-130	23.0	30	
Surrogate: 1,2-Dichloroethane-d4	0.0500		"	0.0400		125	50-150			
Surrogate: Toluene-d8	0.0372		"	0.0400		93.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0431		"	0.0400		108	50-150			

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Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

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

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

**Batch BGF0191 - EPA 3550A**

**Blank (BGF0191-BLK1)**

Prepared: 06/06/23 Analyzed: 06/07/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	11.2		"	12.5		89.5	30-150			

**LCS (BGF0191-BS1)**

Prepared: 06/06/23 Analyzed: 06/07/23

C10-C28 (DRO)	379	50	mg/kg	500		75.7	70-130			
Surrogate: <i>o</i> -Terphenyl	11.7		"	12.5		93.9	30-150			

**Matrix Spike (BGF0191-MS1)**

Source: 2306023-01

Prepared: 06/06/23 Analyzed: 06/07/23

C10-C28 (DRO)	363	50	mg/kg	500	11.9	70.2	70-130			
Surrogate: <i>o</i> -Terphenyl	11.3		"	12.5		90.3	30-150			

**Matrix Spike Dup (BGF0191-MSD1)**

Source: 2306023-01

Prepared: 06/06/23 Analyzed: 06/07/23

C10-C28 (DRO)	376	50	mg/kg	500	11.9	72.8	70-130	3.58	20	
Surrogate: <i>o</i> -Terphenyl	10.9		"	12.5		87.1	30-150			

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Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

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

**Summit Scientific**

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

**Batch BGF0243 - EPA 5030 Soil MS**

**Blank (BGF0243-BLK1)**

Prepared & Analyzed: 06/07/23

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	0.0299		"	0.0333		89.8		40-150		
Surrogate: Fluoranthene-d10	0.0306		"	0.0333		91.7		40-150		

**LCS (BGF0243-BS1)**

Prepared & Analyzed: 06/07/23

Acenaphthene	0.0301	0.00500	mg/kg	0.0333		90.2		31-137		
Anthracene	0.0276	0.00500	"	0.0333		82.7		30-120		
Benzo (a) anthracene	0.0233	0.00500	"	0.0333		70.0		30-120		
Benzo (a) pyrene	0.0311	0.00500	"	0.0333		93.3		30-120		
Benzo (b) fluoranthene	0.0285	0.00500	"	0.0333		85.6		30-120		
Benzo (k) fluoranthene	0.0289	0.00500	"	0.0333		86.7		30-120		
Chrysene	0.0314	0.00500	"	0.0333		94.1		30-120		
Dibenz (a,h) anthracene	0.0258	0.00500	"	0.0333		77.5		30-120		
Fluoranthene	0.0275	0.00500	"	0.0333		82.6		30-120		
Fluorene	0.0282	0.00500	"	0.0333		84.7		30-120		
Indeno (1,2,3-cd) pyrene	0.0266	0.00500	"	0.0333		79.9		30-120		
Pyrene	0.0346	0.00500	"	0.0333		104		35-142		
1-Methylnaphthalene	0.0209	0.00500	"	0.0333		62.8		35-142		
2-Methylnaphthalene	0.0252	0.00500	"	0.0333		75.6		35-142		
Surrogate: 2-Methylnaphthalene-d10	0.0283		"	0.0333		85.0		40-150		
Surrogate: Fluoranthene-d10	0.0285		"	0.0333		85.4		40-150		

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Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**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 BGF0243 - EPA 5030 Soil MS**

<b>Matrix Spike (BGF0243-MS1)</b>	<b>Source: 2306054-01</b>			<b>Prepared &amp; Analyzed: 06/07/23</b>						
Acenaphthene	0.0227	0.00500	mg/kg	0.0333	ND	68.0	31-137			
Anthracene	0.0239	0.00500	"	0.0333	ND	71.6	30-120			
Benzo (a) anthracene	0.0232	0.00500	"	0.0333	ND	69.5	30-120			
Benzo (a) pyrene	0.0225	0.00500	"	0.0333	ND	67.5	30-120			
Benzo (b) fluoranthene	0.0201	0.00500	"	0.0333	ND	60.4	30-120			
Benzo (k) fluoranthene	0.0219	0.00500	"	0.0333	ND	65.8	30-120			
Chrysene	0.0247	0.00500	"	0.0333	ND	74.0	30-120			
Dibenz (a,h) anthracene	0.0165	0.00500	"	0.0333	ND	49.6	30-120			
Fluoranthene	0.0229	0.00500	"	0.0333	ND	68.8	30-120			
Fluorene	0.0224	0.00500	"	0.0333	ND	67.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0151	0.00500	"	0.0333	ND	45.3	30-120			
Pyrene	0.0253	0.00500	"	0.0333	ND	75.9	35-142			
1-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	60.8	15-130			
2-Methylnaphthalene	0.0222	0.00500	"	0.0333	ND	66.6	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0249</i>		<i>"</i>	<i>0.0333</i>		<i>74.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0256</i>		<i>"</i>	<i>0.0333</i>		<i>76.8</i>	<i>40-150</i>			

<b>Matrix Spike Dup (BGF0243-MSD1)</b>	<b>Source: 2306054-01</b>			<b>Prepared &amp; Analyzed: 06/07/23</b>						
Acenaphthene	0.0196	0.00500	mg/kg	0.0333	ND	58.7	31-137	14.6	30	
Anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	17.5	30	
Benzo (a) anthracene	0.0202	0.00500	"	0.0333	ND	60.5	30-120	13.9	30	
Benzo (a) pyrene	0.0195	0.00500	"	0.0333	ND	58.5	30-120	14.2	30	
Benzo (b) fluoranthene	0.0174	0.00500	"	0.0333	ND	52.3	30-120	14.4	30	
Benzo (k) fluoranthene	0.0180	0.00500	"	0.0333	ND	54.1	30-120	19.6	30	
Chrysene	0.0205	0.00500	"	0.0333	ND	61.6	30-120	18.3	30	
Dibenz (a,h) anthracene	0.0167	0.00500	"	0.0333	ND	50.1	30-120	0.991	30	
Fluoranthene	0.0189	0.00500	"	0.0333	ND	56.8	30-120	19.0	30	
Fluorene	0.0195	0.00500	"	0.0333	ND	58.5	30-120	13.6	30	
Indeno (1,2,3-cd) pyrene	0.0158	0.00500	"	0.0333	ND	47.4	30-120	4.48	30	
Pyrene	0.0212	0.00500	"	0.0333	ND	63.7	35-142	17.5	30	
1-Methylnaphthalene	0.0168	0.00500	"	0.0333	ND	50.3	15-130	19.0	50	
2-Methylnaphthalene	0.0195	0.00500	"	0.0333	ND	58.6	15-130	12.7	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0214</i>		<i>"</i>	<i>0.0333</i>		<i>64.1</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0219</i>		<i>"</i>	<i>0.0333</i>		<i>65.7</i>	<i>40-150</i>			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**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 BGF0374 - EPA 3050B**

**Blank (BGF0374-BLK1)**

Prepared: 06/09/23 Analyzed: 06/11/23

Boron ND 0.0100 mg/L

**LCS (BGF0374-BS1)**

Prepared: 06/09/23 Analyzed: 06/11/23

Boron 4.71 0.0100 mg/L 5.00 94.2 80-120

**Duplicate (BGF0374-DUP1)**

**Source: 2306054-01**

Prepared: 06/09/23 Analyzed: 06/11/23

Boron 0.666 0.0100 mg/L 0.692 3.79 20

**Matrix Spike (BGF0374-MS1)**

**Source: 2306054-01**

Prepared: 06/09/23 Analyzed: 06/11/23

Boron 4.31 0.0100 mg/L 5.00 0.692 72.3 75-125 QM-07

**Matrix Spike Dup (BGF0374-MSD1)**

**Source: 2306054-01**

Prepared: 06/09/23 Analyzed: 06/11/23

Boron 4.49 0.0100 mg/L 5.00 0.692 75.9 75-125 4.07 25

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Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

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

**Summit Scientific**

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

**Batch BGF0392 - General Preparation**

**Blank (BGF0392-BLK1)**

Prepared: 06/10/23 Analyzed: 06/16/23

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

**LCS (BGF0392-BS1)**

Prepared: 06/10/23 Analyzed: 06/16/23

Calcium	6.13	0.0500	mg/L wet	5.00		123	70-130			
Magnesium	5.49	0.0500	"	5.00		110	70-130			
Sodium	5.45	0.0500	"	5.00		109	70-130			

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Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
 Project Manager: Sam Vogt

**Reported:**  
 06/19/23 11:51

**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 BGF0368 - General Preparation**

**Duplicate (BGF0368-DUP1)**

**Source: 2306054-01**

Prepared & Analyzed: 06/09/23

% Solids	79.0		%		80.3			1.71	20	
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6855 W. 119th Ave.  
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Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**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 BGF0399 - General Preparation**

**Blank (BGF0399-BLK1)**

Prepared & Analyzed: 06/11/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGF0399-BS1)**

Prepared & Analyzed: 06/11/23

Specific Conductance (EC) 0.151 0.0100 mmhos/cm 0.150 101 95-105

**Duplicate (BGF0399-DUP1)**

Source: 2306054-01

Prepared & Analyzed: 06/11/23

Specific Conductance (EC) 6.23 0.0100 mmhos/cm 6.33 1.70 20

Summit Scientific

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Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

**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 BGF0398 - General Preparation**

**LCS (BGF0398-BS1)**

Prepared & Analyzed: 06/11/23

pH 9.11 pH Units 9.18 99.2 95-105

**Duplicate (BGF0398-DUP1)**

Source: 2306054-01

Prepared & Analyzed: 06/11/23

pH 7.96 pH Units 8.05 1.12 20

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Project: Civitas - Alaux 4-0-26 & 26-3

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
06/19/23 11:51

### Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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