Federal 12-10

SENW Sec. 10-T3N-R65W

API #: 123-17136

Remediation Project #: 31228

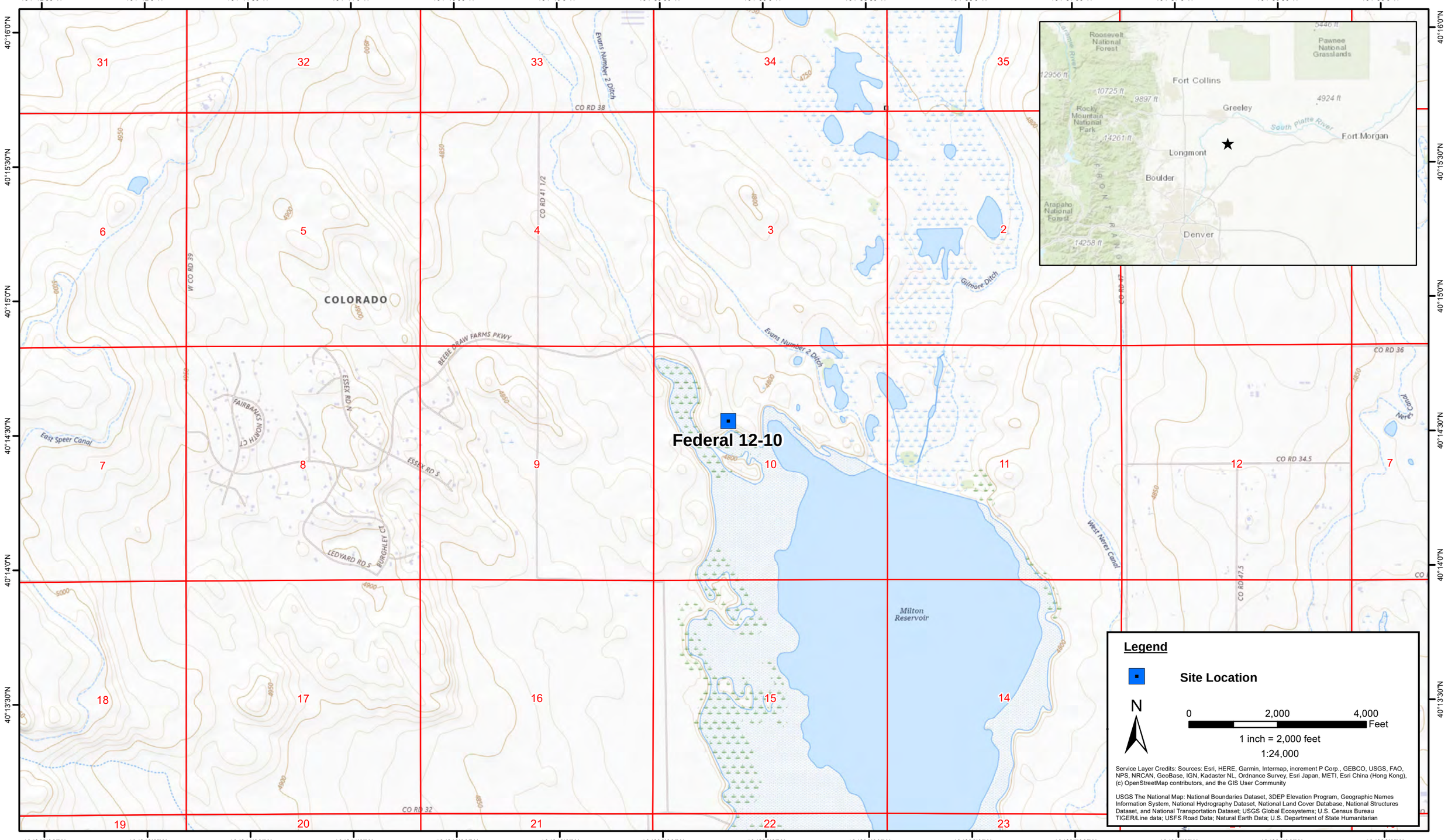
Form 19 Data Package

June 2024

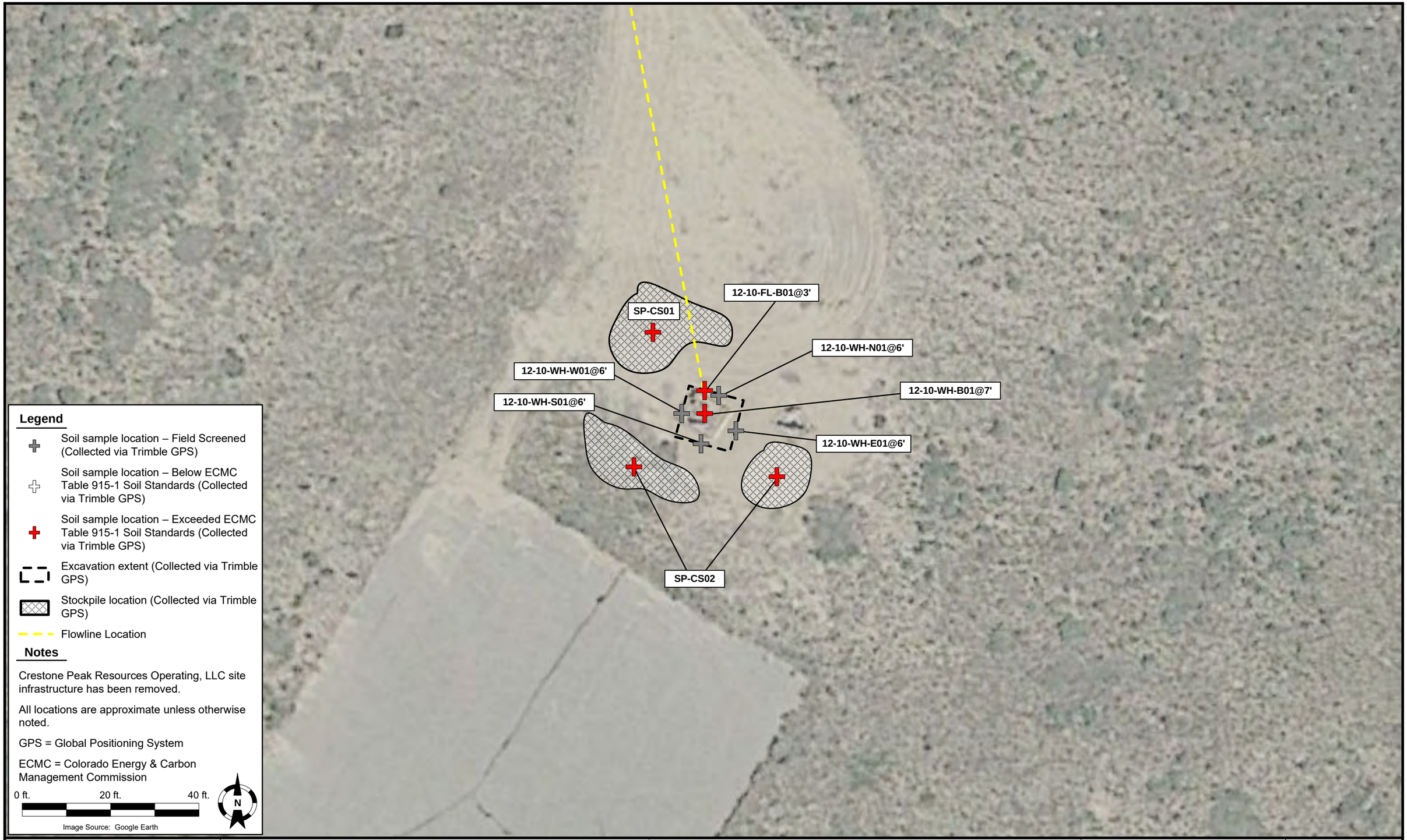
Prepared by Tasman, Inc.

On behalf of Crestone Peak Resources Operating, LLC

FIGURES



DATE: July 2024 DESIGNED BY: S. Vogt DRAWN BY: L. Reed	TASMAN **Tasman, Inc.** **6855 W. 119th Ave** **Broomfield, CO 80020**	**Crestone Peak Resources Operating LLC** **Federal 12-10** SENW Sec. 10-T3N-R65W Weld County, Colorado	Site Location Map	Figure 1



Legend

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

Notes

Crestone Peak Resources Operating, LLC site infrastructure has been removed.

All locations are approximate unless otherwise noted.

GPS = Global Positioning System

ECMC = Colorado Energy & Carbon Management Commission

0 ft. 20 ft. 40 ft.

N

Image Source: Google Earth

DATE:	July 10, 2024
DESIGNED BY:	S. Vogt
DRAWN BY:	B. LeVasseur

TASMAN
Tasman, Inc.
6855 W119th Ave.
Broomfield, CO 80020

Crestone Peak Resources Operating, LLC
Federal 12-10
SENW Sec. 10-T3N-R65W
Weld County, Colorado

Soil Sample Location Map
(11/15/2023)

Figure
2

DATE: July 10, 2024 DESIGNED BY: S. Vogt DRAWN BY: B. LeVasseur	TASMAN	**Tasman, Inc.** **6855 W119th Ave.** **Broomfield, CO 80020**	**Crestone Peak Resources Operating, LLC** **Federal 12-10** SENW Sec. 10-T3N-R65W Weld County, Colorado	Soil Sample Location Map (06/24/2023)	Figure 3

TABLES

TABLE 1
FEDERAL 12-10
SOIL SAMPLE LOCATIONS
CRESTONE PEAK RESOURCES OPERATING, LLC

Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
12-10-WH-B01@6’	6'	11/15/2023	21.7	40.242497	-104.653272	-	Y
12-10-WH-N01@5’	5'	11/15/2023	0.8	40.242503	-104.653263	-	N
12-10-WH-S01@5’	5'	11/15/2023	2.2	40.242483	-104.653272	1.4	N
12-10-WH-E01@5’	5'	11/15/2023	0.5	40.242491	-104.653255	1.3	N
12-10-WH-W01@5’	5'	11/15/2023	0.8	40.242502	-104.653281	1.3	N
SP-CS01	-	11/15/2023	9.3	40.242492	-104.653281	1.1	Y
SP-CS02	-	11/15/2023	44.7	40.242447	-104.653242	-	Y
12-10-FL-B01@3’	3'	11/15/2023	0.3	40.242506	-104.653270	-	Y
12-10-WH-B01R@6’	6'	06/24/2024	1.4	40.242471	-104.653286	0.8	Y
SP-CS01R@4’	4'	06/24/2024	0.1	40.242470	-104.653287	0.8	Y
12-10-FL-B01R@3'	3'	06/24/2024	0.0	40.242472	-104.653287	0.9	Y
SP-CS02R@3’	3'	06/24/2024	0.0	40.242447	-104.653239	0.9	Y
BACKGROUND							
BG01@3’	3'	06/24/2024	0.0	40.242624	-104.653684	1.1	Y
BG01@6’	6'	06/24/2024	0.0	40.242624	-104.653684	1.1	Y
BG02@3’	3'	06/24/2024	0.1	40.242727	-104.653633	0.8	Y
BG02@6’	6'	06/24/2024	0.0	40.242727	-104.653633	0.8	Y
BG03@3’	3'	06/24/2024	0.0	40.242692	-104.652977	0.9	Y
BG03@6’	6'	06/24/2024	0.0	40.242692	-104.652977	0.9	Y

Notes:
PID = Photoionization Detector
ppm = parts per million
GPS = Global Positioning System
PDOP = Position Dilution of Precision
- = Not Applicable

TABLE 2
FEDERAL 12-10
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)
ECMC Organic Compounds in Soils - GSSL [1]			**0.0026**	**0.69**	**0.78**	**9.9**	**0.0038**	**500**			**0.0081**	**0.0087**
ECMC Organic Compounds in Soils - RSL [2]			**1.2**	**490**	**5.8**	**58**	**2**	**500**			**30**	**27**
12-10-FL-B01@3'	3'	11/15/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS01	-	11/15/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS02	-	11/15/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
12-10-WH-B01@6'	6'	11/15/2023	<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 ECMC 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 ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)
ECMC = Colorado Energy & Carbon Management Commission
GSSL = Protection of Groundwater Screening Level
RSL = Residential Soil Screening Level
(<) = 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 ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

TABLE 3
FEDERAL 12-10
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)
ECMC Organic Compounds in Soils - GSSL [(1)]			**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**
ECMC Organic Compounds in Soils - RSL [(2)]			**360**	**1,800**	**1.1**	**1.1**	**11**	**0.11**	**110**	**0.11**	**240**	**240**	**1.1**	**18**	**24**	**180**
12-10-FL-B01@3'	3'	11/15/2023	<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	-	11/15/2023	<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-CS02	-	11/15/2023	<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
12-10-WH-B01@6'	6'	11/15/2023	<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 ECMC 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 ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)
ECMC = Colorado Energy & Carbon Management Commission
GSSL = Protection of Groundwater Screening Level
RSL = Residential Soil Screening Level
(<) = 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 ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

TABLE 4
FEDERAL 12-10
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)	Confirmation/Resample for Sample Location(s) [3]
ECMC Metals in Soils - GSSL [1]			**0.29**	**82**	**0.38**	**0.00067**	**46**	**14**	**26**	**0.26**	**0.8**	**370**	**-**
ECMC Metals in Soils - RSL [2]			**0.68**	**15,000**	**71**	**0.3**	**3,100**	**400**	**1,500**	**390**	**390**	**23,000**	**-**
12-10-FL-B01@3'	3'	11/15/2023	0.632*	**251**	<0.200	*<0.30*	1.21	9.3	1.03	<0.260	<0.0200	10.3	-
SP-CS01	-	11/15/2023	0.636*	**286**	<0.200	*<0.30*	2.86	**21.6**	1.03	<0.260	<0.0200	12.8	-
SP-CS02	-	11/15/2023	0.843*	**540**	<0.200	*<0.30*	5.52	**38.1**	1.87	<0.260	<0.0200	25.1	-
12-10-WH-B01@6'	6'	11/15/2023	0.637*	**152**	<0.200	*<0.30*	3.63	11.8	2.30	<0.260	<0.0200	8.30	-
12-10-WH-B01R@6’	6'	06/24/2024	-	25.7	-	-	-	-	-	-	-	-	12-10-WH-B01@6'
SP-CS01R@4’	4'	06/24/2024	-	27.8	-	-	-	4.64	-	-	-	-	SP-CS01
12-10-FL-B01R@3'	3'	06/24/2024	-	41.9	-	-	-	5.62	-	-	-	-	12-10-FL-B01@3'
SP-CS02R@3’	3'	06/24/2024	-	**135**	-	-	-	Pending	-	-	-	-	SP-CS02
BACKGROUND													
BG01@3’	3'	06/24/2024	0.844	32.1	<0.0855	<0.255	1.92	2.52	1.94	0.226	<0.0865	7.92	-
BG01@6’	6'	06/24/2024	0.528	23.4	<0.0855	<0.255	1.72	1.88	1.55	0.239	<0.0865	5.76	-
BG02@3’	3'	06/24/2024	0.378	19.2	<0.0855	<0.255	1.19	1.34	1.12	0.185	<0.0865	4.49	-
BG02@6’	6'	06/24/2024	0.465	30.2	<0.0855	<0.255	1.22	1.48	1.23	<0.180	<0.0865	5.18	-
BG03@3’	3'	06/24/2024	**0.846**	31.6	<0.0855	<0.255	**2.17**	**2.80**	**2.26**	**0.338**	<0.0865	**8.74**	-
BG03@6’	6'	06/24/2024	0.773	**32.9**	<0.0855	<0.255	2.04	2.65	2.05	0.300	<0.0865	8.02	-
Highest Background @ 3' - 6' x1.25 (SP)			**1.06**	**41.1**	**-**	**-**	**2.71**	**3.50**	**2.83**	**0.423**	**-**	**10.9**	**-**

Notes:
(1) Standards for soil are taken from ECMC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)
(2) Standards for soil are taken from ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)
(3) List sample location that exceeded ECMC Table 915-1 Standards that the confirmation/resample sample represents. Sample location resampled to confirm heterogeneous lithology or lab variability. All other sample results were either below Table 915-1 limits or site-specific backgrounds.
ECMC = Colorado Energy & Carbon Management Commission
GSSL = Protection of Groundwater Screening Level
RSL = Residential Soil Screening Level
(<) = Analytical result is less than the indicated laboratory minimum detection limit
mg/kg = milligrams per kilogram
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations
Highest background concentration x1.25
Italics = Laboratory minimum detection limit exceeds the ECMC Table 915-1 Standard
* Result exceeded the ECMC Table 915-1 standard, but was within site-specific 1.25x background multiplier levels
- = Constituent not analyzed
Pending = Analytical results pending final laboratory reporting

TABLE 5
FEDERAL 12-10
SOIL ANALYTICAL DATA - SOIL RECLAMATION
CRESTONE PEAK RESOURCES OPERATING, LLC

Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC Soil Suitability for Reclamation[(1)]			**6 - 8.3**	**< 6**	**< 4**	**2**
12-10-FL-B01@3'	3'	11/15/2023	7.47	0.0174	0.0954	<2.00
SP-CS01	-	11/15/2023	8.28	0.135	0.134	<2.00
SP-CS02	-	11/15/2023	**8.83**	0.118	0.177	<2.00
12-10-WH-B01@6'	6'	11/15/2023	**9.09**	0.252	0.269	<2.00
BACKGROUND						
BG01@3’	3'	06/24/2024	6.60	0.0746	0.0102	0.0358
BG01@6’	6'	06/24/2024	6.93	**0.143**	0.0198	0.0279
BG02@3’	3'	06/24/2024	6.86	0.100	0.0141	0.0407
BG02@6’	6'	06/24/2024	6.65	0.120	0.0144	0.038
BG03@3’	3'	06/24/2024	**7.18**	0.0534	**0.0321**	0.0476
BG03@6’	6'	06/24/2024	6.94	0.101	0.0234	**0.0489**
Highest Background @ 3' - 6' (SP)			**7.18**	**0.143**	**0.0321**	**0.0489**

Notes:
(1) Standards for soil are taken from ECMC Table 915-1: Soil Suitability for Reclamation (Effective January 15, 2021)
ECMC = Colorado Energy & Carbon Management 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 ECMC Table 915-1: Soil Suitability for Reclamation Concentrations
Highest background concentration
* Result exceeded the ECMC 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

January 10, 2024

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

RE: Civitas - Federal 12-10
Work Order #2311333

Enclosed are the results of analyses for samples received by Summit Scientific on 11/15/23 17:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mikayla Axtell For Paul Shrewsbury
President

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-B01@6'	2311333-01	Soil	11/15/23 10:30	11/15/23 17:30
SP-CS01	2311333-02	Soil	11/15/23 10:50	11/15/23 17:30
SP-CS02	2311333-03	Soil	11/15/23 10:52	11/15/23 17:30
FL-B01@3'	2311333-04	Soil	11/15/23 10:40	11/15/23 17:30

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.

SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2311333	

	Send Data To:	Send Invoice To:
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		AFE#: 23177
Phone: PM (610) 405-9078	Project Name: Federal 17-10	PO/Billing Codes:
Sampler Name: Lennon Bakel	Project Number:	Contact:

				Preservative				Matrix				Analysis Requested							
ID	Sample Description	Date Sampled	Time Sampled	# of containers	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	Special Instructions
1	WH-BD1@6'	11/15/23	10:30	2			X			X			X	X	X	X	X	X	X	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	SP-CS@1		10:50																	
3	SP-CS@2		10:52																	
4	FL-BD1@3'		10:40																	
5	WH-ND1@5'		10:32																	On-hold
6	WH-SD1@5'		10:34																	
7	WH-ED1@5'		10:36																	
8	WH-WD1@5'		10:38																	
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by:	Date/Time:	Received by: Tasman Lockbox	Date/Time:
	11/15/23/17:00		11/15/23/17:00
Relinquished by:	Date/Time:	Received by:	Date/Time:
Tasman Lockbox	111523 1730		111523 1730
Relinquished by:	Date/Time:	Received by:	Date/Time:

TAT Business Days	
Same Day	
1 Day	
2 Days	
3 Days	
Standard	X

Field DO	
Field EC	
Field ORP	
Field pH	
Field Temp.	
Field Turb.	

Notes:

Temperature Upon Receipt: 11.4 | Corrected Temperature: 6 | IR gun #: 1 | HNO3 lot #:

S2

Sample Receipt Checklist S2 Work Order# 2311333

Client: CrAssociates Client Project ID: Federal 12-10

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

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

Temp (°C) 11.4 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? (1) NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	–			ambient
If custody seals are present, are they intact? (1)	–			
Are samples due within 48 hours present?		–		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe^{2+}), Hexavalent Chromium (Cr^{6+}, Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen		–		
Is a chain-of-custody (COC) form present and filled out Completely? (1)	–			
Is the COC properly relinquished by the client w/ date and time recorded? (1)	–			
Were all samples received intact? (1)	✓			
Was adequate sample volume provided? (1)	✓			
Does the COC agree with the number and type of sample bottles received? (1)	✓			
Do the sample IDs on the bottle labels match the COC? (1)		✓		no time stamps
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling)? (1) Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			✓	
If samples are acid preserved for metals, is the pH ≤ 2? (1) Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

AS
Custodian Printed Name

11/15/23
Date/Time

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

WH-B01@6'

2311333-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGK0684	11/17/23	11/20/23	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: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0406	*101 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0398	*99.4 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	*103 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0685	11/17/23	11/19/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.60	*52.8 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

WH-B01@6'

2311333-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0647	11/17/23	11/18/23	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: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0187	*56.0 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0185	*55.5 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0755	11/20/23	11/22/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/15/23 10:30**

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 - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

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2311333-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.637**	0.200	mg/kg dry	1	BGK1021	11/28/23	11/29/23	EPA 6020B	
Barium	**152**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**3.63**	0.400	"	"	"	"	"	"	
Lead	**11.8**	0.200	"	"	"	"	"	"	
Nickel	**2.30**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**8.30**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0890	11/22/23	11/27/23	EPA 7196A	

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

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**101**	0.0500	mg/L dry	1	BGK0919	11/22/23	11/27/23	EPA 6020B	
Magnesium	**12.7**	0.0500	"	"	"	"	"	"	
Sodium	**10.1**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.252**	0.00100	units	1	BGK1025	11/28/23	11/28/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

WH-B01@6'

2311333-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94.2**		%	1	BGK0877	11/22/23	11/22/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.269**	0.0100	mmhos/cm	1	BGK0963	11/27/23	11/27/23	EPA 120.1	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

WH-B01@6'

2311333-01 (Soil)

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

Date Sampled: **11/15/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**9.38**		pH Units	1	BGL0658	11/27/23	12/18/23	EPA 9045D	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

SP-CS01

2311333-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGK0684	11/17/23	11/20/23	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: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0407	*102 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0399	*99.7 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0401	*100 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0685	11/17/23	11/19/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.2	*81.8 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

SP-CS01

2311333-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0647	11/17/23	11/18/23	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: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0251	*75.3 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0244	*73.3 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0755	11/20/23	11/22/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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SP-CS01

2311333-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.636**	0.200	mg/kg dry	1	BGK1021	11/28/23	11/29/23	EPA 6020B	
Barium	**286**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**2.86**	0.400	"	"	"	"	"	"	
Lead	**21.6**	0.200	"	"	"	"	"	"	
Nickel	**1.03**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**12.8**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0890	11/22/23	11/27/23	EPA 7196A	

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

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**105**	0.0500	mg/L dry	1	BGK0919	11/22/23	11/27/23	EPA 6020B	
Magnesium	**8.23**	0.0500	"	"	"	"	"	"	
Sodium	**5.34**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.135**	0.00100	units	1	BGK1025	11/28/23	11/28/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

SP-CS01

2311333-02 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**95.3**		%	1	BGK0877	11/22/23	11/22/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.134**	0.0100	mmhos/cm	1	BGK0963	11/27/23	11/27/23	EPA 120.1	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

SP-CS01

2311333-02 (Soil)

Summit Scientific

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

Date Sampled: **11/15/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.28**		pH Units	1	BGL0658	11/27/23	12/18/23	EPA 9045D	

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

SP-CS02

2311333-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGK0684	11/17/23	11/20/23	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: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0419	*105 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0399	*99.7 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	*102 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0685	11/17/23	11/19/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.06	*72.5 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

SP-CS02

2311333-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0647	11/17/23	11/18/23	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: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0209	*62.7 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0213	*63.9 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0755	11/20/23	11/22/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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SP-CS02

2311333-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.843**	0.200	mg/kg dry	1	BGK1021	11/28/23	11/29/23	EPA 6020B	
Barium	**540**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**5.52**	0.400	"	"	"	"	"	"	
Lead	**38.1**	0.200	"	"	"	"	"	"	
Nickel	**1.87**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**25.1**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0890	11/22/23	11/27/23	EPA 7196A	

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

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**226**	0.0500	mg/L dry	1	BGK0919	11/22/23	11/27/23	EPA 6020B	
Magnesium	**19.1**	0.0500	"	"	"	"	"	"	
Sodium	**6.88**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.118**	0.00100	units	1	BGK1025	11/28/23	11/28/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

SP-CS02

2311333-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**93.6**		%	1	BGK0877	11/22/23	11/22/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.177**	0.0100	mmhos/cm	1	BGK0963	11/27/23	11/27/23	EPA 120.1	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

SP-CS02

2311333-03 (Soil)

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

Date Sampled: **11/15/23 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.83**		pH Units	1	BGL0658	11/27/23	12/18/23	EPA 9045D	

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

FL-B01@3'

2311333-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGK0684	11/17/23	11/20/23	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: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0417	*104 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0403	*101 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	*102 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGK0685	11/17/23	11/19/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.38	*67.1 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

FL-B01@3'

2311333-04 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGK0647	11/17/23	11/18/23	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: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0226	*67.8 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0209	*62.8 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0755	11/20/23	11/22/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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2311333-04 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.632**	0.200	mg/kg dry	1	BGK1021	11/28/23	11/29/23	EPA 6020B	
Barium	**251**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**1.21**	0.400	"	"	"	"	"	"	
Lead	**9.30**	0.200	"	"	"	"	"	"	
Nickel	**1.03**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**10.3**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGK0890	11/22/23	11/27/23	EPA 7196A	

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

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**142**	0.0500	mg/L dry	1	BGK0919	11/22/23	11/27/23	EPA 6020B	
Magnesium	**24.9**	0.0500	"	"	"	"	"	"	
Sodium	**0.853**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.0174**	0.00100	units	1	BGK1025	11/28/23	11/28/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

FL-B01@3'

2311333-04 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**89.8**		%	1	BGK0877	11/22/23	11/22/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.0954**	0.0100	mmhos/cm	1	BGK0963	11/27/23	11/27/23	EPA 120.1	

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

Date Sampled: **11/15/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.47**		pH Units	1	BGK0965	11/27/23	11/27/23	EPA 9045D	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0684 - EPA 5030 Soil MS										
Blank (BGK0684-BLK1)				Prepared: 11/17/23 Analyzed: 11/20/23						
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	*0.0420*		*"*	*0.0400*		*105*	*50-150*			
Surrogate: Toluene-d8	*0.0407*		*"*	*0.0400*		*102*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0411*		*"*	*0.0400*		*103*	*50-150*			
LCS (BGK0684-BS1)				Prepared: 11/17/23 Analyzed: 11/20/23						
Benzene	0.101	0.0020	mg/kg	0.100		101	70-130			
Toluene	0.0984	0.0050	"	0.100		98.4	70-130			
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130			
m,p-Xylene	0.200	0.010	"	0.200		100	70-130			
o-Xylene	0.0970	0.0050	"	0.100		97.0	70-130			
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
Naphthalene	0.0890	0.0038	"	0.100		89.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0402*		*"*	*0.0400*		*101*	*50-150*			
Surrogate: Toluene-d8	*0.0407*		*"*	*0.0400*		*102*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0401*		*"*	*0.0400*		*100*	*50-150*			
Matrix Spike (BGK0684-MS1)		**Source: 2311333-01**		Prepared: 11/17/23 Analyzed: 11/20/23						
Benzene	0.109	0.0020	mg/kg	0.100	ND	109	70-130			
Toluene	0.108	0.0050	"	0.100	ND	108	70-130			
Ethylbenzene	0.115	0.0050	"	0.100	ND	115	70-130			
m,p-Xylene	0.221	0.010	"	0.200	ND	111	70-130			
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130			
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130			
1,3,5-Trimethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130			
Naphthalene	0.0882	0.0038	"	0.100	ND	88.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0415*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: Toluene-d8	*0.0410*		*"*	*0.0400*		*102*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0403*		*"*	*0.0400*		*101*	*50-150*			

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0684 - EPA 5030 Soil MS										
Matrix Spike Dup (BGK0684-MSD1)	**Source: 2311333-01**			Prepared: 11/17/23 Analyzed: 11/20/23						
Benzene	0.107	0.0020	mg/kg	0.100	ND	107	70-130	1.95	30	
Toluene	0.103	0.0050	"	0.100	ND	103	70-130	4.63	30	
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	5.24	30	
m,p-Xylene	0.211	0.010	"	0.200	ND	105	70-130	4.80	30	
o-Xylene	0.0994	0.0050	"	0.100	ND	99.4	70-130	3.18	30	
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	0.973	30	
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	5.39	30	
Naphthalene	0.0898	0.0038	"	0.100	ND	89.8	70-130	1.85	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0404*		"	*0.0400*		*101*	*50-150*			
Surrogate: Toluene-d8	*0.0406*		"	*0.0400*		*101*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0397*		"	*0.0400*		*99.2*	*50-150*			

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0685 - EPA 3550A										
Blank (BGK0685-BLK1)				Prepared: 11/17/23 Analyzed: 11/19/23						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	*11.4*		*"*	*12.5*		*91.4*	*30-150*			
LCS (BGK0685-BS1)				Prepared: 11/17/23 Analyzed: 11/19/23						
C10-C28 (DRO)	501	50	mg/kg	500		100	70-130			
Surrogate: o-Terphenyl	*7.21*		*"*	*12.5*		*57.7*	*30-150*			
Matrix Spike (BGK0685-MS1)	**Source: 2311333-01**			Prepared: 11/17/23 Analyzed: 11/19/23						
C10-C28 (DRO)	439	50	mg/kg	500	39.8	79.9	70-130			
Surrogate: o-Terphenyl	*6.79*		*"*	*12.5*		*54.3*	*30-150*			
Matrix Spike Dup (BGK0685-MSD1)	**Source: 2311333-01**			Prepared: 11/17/23 Analyzed: 11/19/23						
C10-C28 (DRO)	475	50	mg/kg	500	39.8	87.1	70-130	7.83	20	
Surrogate: o-Terphenyl	*6.95*		*"*	*12.5*		*55.6*	*30-150*			

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0647 - EPA 5030 Soil MS										
Blank (BGK0647-BLK1)				Prepared: 11/17/23 Analyzed: 11/18/23						
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	*0.0280*		*"*	*0.0333*		*84.1*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0278*		*"*	*0.0333*		*83.3*	*40-150*			
LCS (BGK0647-BS1)				Prepared: 11/17/23 Analyzed: 11/18/23						
Acenaphthene	0.0305	0.00500	mg/kg	0.0333		91.5	31-137			
Anthracene	0.0330	0.00500	"	0.0333		98.9	30-120			
Benzo (a) anthracene	0.0288	0.00500	"	0.0333		86.3	30-120			
Benzo (a) pyrene	0.0237	0.00500	"	0.0333		71.2	30-120			
Benzo (b) fluoranthene	0.0262	0.00500	"	0.0333		78.5	30-120			
Benzo (k) fluoranthene	0.0284	0.00500	"	0.0333		85.1	30-120			
Chrysene	0.0335	0.00500	"	0.0333		101	30-120			
Dibenz (a,h) anthracene	0.0346	0.00500	"	0.0333		104	30-120			
Fluoranthene	0.0305	0.00500	"	0.0333		91.4	30-120			
Fluorene	0.0263	0.00500	"	0.0333		78.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0335	0.00500	"	0.0333		100	30-120			
Pyrene	0.0328	0.00500	"	0.0333		98.3	35-142			
1-Methylnaphthalene	0.0328	0.00500	"	0.0333		98.5	35-142			
2-Methylnaphthalene	0.0331	0.00500	"	0.0333		99.3	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0256*		*"*	*0.0333*		*76.7*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0309*		*"*	*0.0333*		*92.6*	*40-150*			

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0647 - EPA 5030 Soil MS										
Matrix Spike (BGK0647-MS1)	**Source: 2311331-01**			Prepared: 11/17/23 Analyzed: 11/18/23						
Acenaphthene	0.0170	0.00500	mg/kg	0.0333	ND	51.0	31-137			
Anthracene	0.0171	0.00500	"	0.0333	ND	51.4	30-120			
Benzo (a) anthracene	0.0167	0.00500	"	0.0333	ND	50.0	30-120			
Benzo (a) pyrene	0.0185	0.00500	"	0.0333	ND	55.6	30-120			
Benzo (b) fluoranthene	0.0143	0.00500	"	0.0333	ND	43.0	30-120			
Benzo (k) fluoranthene	0.0141	0.00500	"	0.0333	ND	42.3	30-120			
Chrysene	0.0167	0.00500	"	0.0333	ND	50.0	30-120			
Dibenz (a,h) anthracene	0.0194	0.00500	"	0.0333	ND	58.2	30-120			
Fluoranthene	0.0153	0.00500	"	0.0333	ND	46.0	30-120			
Fluorene	0.0157	0.00500	"	0.0333	ND	47.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0231	0.00500	"	0.0333	ND	69.3	30-120			
Pyrene	0.0190	0.00500	"	0.0333	ND	57.0	35-142			
1-Methylnaphthalene	0.0187	0.00500	"	0.0333	ND	56.0	15-130			
2-Methylnaphthalene	0.0184	0.00500	"	0.0333	ND	55.2	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0133*		*"*	*0.0333*		*40.0*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0155*		*"*	*0.0333*		*46.5*	*40-150*			
Matrix Spike Dup (BGK0647-MSD1)	**Source: 2311331-01**			Prepared: 11/17/23 Analyzed: 11/18/23						
Acenaphthene	0.0169	0.00500	mg/kg	0.0333	ND	50.8	31-137	0.314	30	
Anthracene	0.0137	0.00500	"	0.0333	ND	41.0	30-120	22.4	30	
Benzo (a) anthracene	0.0134	0.00500	"	0.0333	ND	40.3	30-120	21.5	30	
Benzo (a) pyrene	0.0150	0.00500	"	0.0333	ND	44.9	30-120	21.3	30	
Benzo (b) fluoranthene	0.0161	0.00500	"	0.0333	ND	48.4	30-120	11.7	30	
Benzo (k) fluoranthene	0.0134	0.00500	"	0.0333	ND	40.3	30-120	4.77	30	
Chrysene	0.0155	0.00500	"	0.0333	ND	46.4	30-120	7.45	30	
Dibenz (a,h) anthracene	0.0157	0.00500	"	0.0333	ND	47.1	30-120	21.1	30	
Fluoranthene	0.0145	0.00500	"	0.0333	ND	43.4	30-120	5.85	30	
Fluorene	0.0146	0.00500	"	0.0333	ND	43.8	30-120	7.51	30	
Indeno (1,2,3-cd) pyrene	0.0143	0.00500	"	0.0333	ND	43.0	30-120	46.8	30	QR-02
Pyrene	0.0140	0.00500	"	0.0333	ND	42.1	35-142	30.0	30	
1-Methylnaphthalene	0.0144	0.00500	"	0.0333	ND	43.1	15-130	26.2	50	
2-Methylnaphthalene	0.0160	0.00500	"	0.0333	ND	48.1	15-130	13.8	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0141*		*"*	*0.0333*		*42.4*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0141*		*"*	*0.0333*		*42.3*	*40-150*			

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0755 - EPA 3050B										
Blank (BGK0755-BLK1)				Prepared: 11/20/23 Analyzed: 11/22/23						
Boron	ND	2.00	mg/L							
LCS (BGK0755-BS1)				Prepared: 11/20/23 Analyzed: 11/22/23						
Boron	5.19	2.00	mg/L	5.00		104	80-120			
Duplicate (BGK0755-DUP1)		**Source: 2311333-01**		Prepared: 11/20/23 Analyzed: 11/22/23						
Boron	0.309	2.00	mg/L		0.361			15.6	20	
Matrix Spike (BGK0755-MS1)		**Source: 2311333-01**		Prepared: 11/20/23 Analyzed: 11/22/23						
Boron	4.79	2.00	mg/L	5.00	0.361	88.6	75-125			
Matrix Spike Dup (BGK0755-MSD1)		**Source: 2311333-01**		Prepared: 11/20/23 Analyzed: 11/22/23						
Boron	4.79	2.00	mg/L	5.00	0.361	88.5	75-125	0.0251	25	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK1021 - EPA 3050B										
Blank (BGK1021-BLK1)				Prepared: 11/28/23 Analyzed: 11/29/23						
Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							
LCS (BGK1021-BS1)				Prepared: 11/28/23 Analyzed: 11/29/23						
Arsenic	46.8	0.200	mg/kg wet	40.0		117	80-120			
Barium	39.9	0.400	"	40.0		99.6	80-120			
Cadmium	2.01	0.200	"	2.00		100	80-120			
Copper	46.1	0.400	"	40.0		115	80-120			
Lead	19.2	0.200	"	20.0		96.1	80-120			
Nickel	46.0	0.400	"	40.0		115	80-120			
Silver	1.98	0.0200	"	2.00		99.1	80-120			
Zinc	45.9	0.400	"	40.0		115	80-120			
Selenium	4.10	0.260	"	4.00		103	80-120			
Duplicate (BGK1021-DUP1)	**Source: 2311333-01**			Prepared: 11/28/23 Analyzed: 11/29/23						
Arsenic	0.880	0.200	mg/kg dry		0.637			32.1	20	QR-01
Barium	149	0.400	"		152			2.28	20	
Cadmium	0.194	0.200	"		0.0985			65.3	20	QR-01
Copper	1.83	0.400	"		3.63			65.8	20	QR-01
Lead	15.0	0.200	"		11.8			24.4	20	QR-04
Nickel	1.10	0.400	"		2.30			70.6	20	QR-01
Silver	0.00807	0.0200	"		0.0102			23.3	20	QR-01
Zinc	9.02	0.400	"		8.30			8.32	20	
Selenium	ND	0.260	"		ND				20	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK1021 - EPA 3050B										
Matrix Spike (BGK1021-MS1)	**Source: 2311333-01**			Prepared: 11/28/23 Analyzed: 11/29/23						
Arsenic	23.4	0.200	mg/kg dry	42.5	0.637	53.5	75-125			QM-07
Barium	233	0.400	"	42.5	152	189	75-125			QM-07
Cadmium	2.28	0.200	"	2.12	0.0985	103	75-125			
Copper	24.4	0.400	"	42.5	3.63	48.9	75-125			QM-07
Lead	31.8	0.200	"	21.2	11.8	94.4	75-125			
Nickel	23.8	0.400	"	42.5	2.30	50.5	75-125			QM-07
Silver	2.08	0.0200	"	2.12	0.0102	97.5	75-125			
Zinc	31.9	0.400	"	42.5	8.30	55.6	75-125			QM-07
Selenium	5.41	0.260	"	4.25	ND	127	75-125			QM-07
Matrix Spike Dup (BGK1021-MSD1)	**Source: 2311333-01**			Prepared: 11/28/23 Analyzed: 11/29/23						
Arsenic	23.6	0.200	mg/kg dry	42.5	0.637	54.2	75-125	1.24	25	QM-07
Barium	266	0.400	"	42.5	152	267	75-125	13.3	25	QM-07
Cadmium	2.67	0.200	"	2.12	0.0985	121	75-125	15.6	25	
Copper	25.4	0.400	"	42.5	3.63	51.2	75-125	4.02	25	QM-07
Lead	36.2	0.200	"	21.2	11.8	115	75-125	12.9	25	
Nickel	24.6	0.400	"	42.5	2.30	52.6	75-125	3.60	25	QM-07
Silver	2.37	0.0200	"	2.12	0.0102	111	75-125	13.1	25	
Zinc	33.5	0.400	"	42.5	8.30	59.4	75-125	4.86	25	QM-07
Selenium	5.29	0.260	"	4.25	ND	125	75-125	2.14	25	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0890 - 3060A_Mod										
Blank (BGK0890-BLK1)				Prepared: 11/22/23 Analyzed: 11/27/23						
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BGK0890-BS1)				Prepared: 11/22/23 Analyzed: 11/27/23						
Chromium, Hexavalent	25.6	0.30	mg/kg wet	25.0		102	80-120			
Duplicate (BGK0890-DUP1)	**Source: 2311333-01**			Prepared: 11/22/23 Analyzed: 11/27/23						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BGK0890-MS1)	**Source: 2311333-01**			Prepared: 11/22/23 Analyzed: 11/27/23						
Chromium, Hexavalent	26.2	0.30	mg/kg dry	26.5	ND	98.6	75-125			
Matrix Spike Dup (BGK0890-MSD1)	**Source: 2311333-01**			Prepared: 11/22/23 Analyzed: 11/27/23						
Chromium, Hexavalent	26.4	0.30	mg/kg dry	26.5	ND	99.4	75-125	0.808	20	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0919 - General Preparation										
Blank (BGK0919-BLK1)				Prepared: 11/22/23 Analyzed: 11/27/23						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BGK0919-BS1)				Prepared: 11/22/23 Analyzed: 11/27/23						
Calcium	5.90	0.0500	mg/L wet	5.00		118	70-130			
Magnesium	5.67	0.0500	"	5.00		113	70-130			
Sodium	5.69	0.0500	"	5.00		114	70-130			

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0877 - General Preparation										
Duplicate (BGK0877-DUP1)	**Source: 2311333-01**			Prepared & Analyzed: 11/22/23						
% Solids	93.7		%		94.2			0.478	20	

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0963 - General Preparation										
Blank (BGK0963-BLK1)				Prepared & Analyzed: 11/27/23						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BGK0963-BS1)				Prepared & Analyzed: 11/27/23						
Specific Conductance (EC)	0.152	0.0100	mmhos/cm	0.150		101	95-105			
Duplicate (BGK0963-DUP1)		**Source: 2311333-01**		Prepared & Analyzed: 11/27/23						
Specific Conductance (EC)	0.263	0.0100	mmhos/cm		0.269			2.22	20	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGK0965 - General Preparation										
LCS (BGK0965-BS1)				Prepared & Analyzed: 11/27/23						
pH	9.09		pH Units	9.18		99.0	95-105			
Duplicate (BGK0965-DUP1)		**Source: 2311333-01**		Prepared & Analyzed: 11/27/23						
pH	9.07		pH Units		9.09			0.220	20	
Batch BGL0658 - General Preparation										
LCS (BGL0658-BS1)				Prepared & Analyzed: 12/18/23						
pH	9.16		pH Units	9.18		99.8	95-105			
Duplicate (BGL0658-DUP1)		**Source: 2311331-01RE1**		Prepared & Analyzed: 12/18/23						
pH	9.88		pH Units		9.92			0.404	20	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Civitas - Federal 12-10 Project Number: 23177 Project Manager: Sam Vogt	**Reported:** 01/10/24 06:47

Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
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

ANALYTICAL REPORT

July 10, 2024

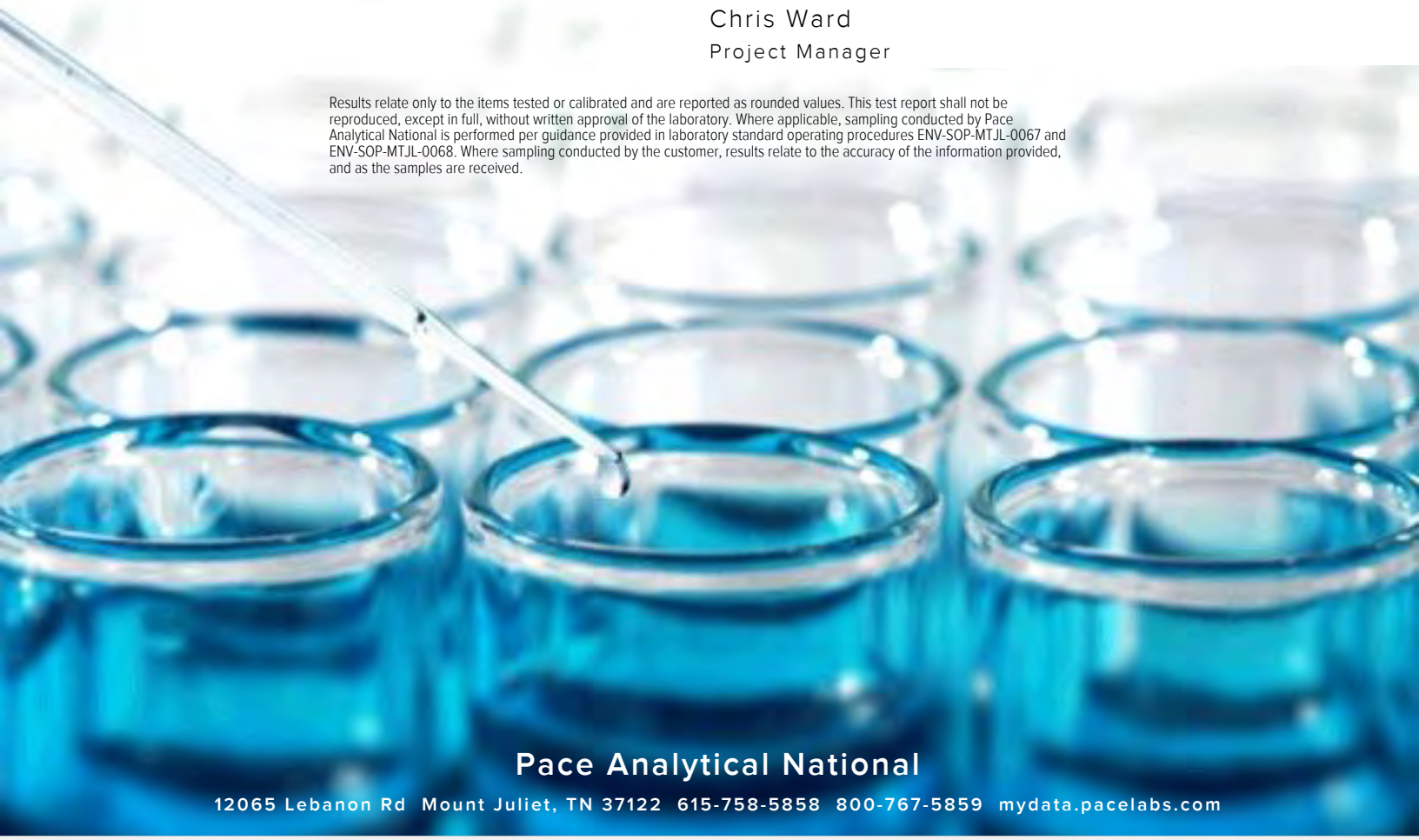
Revised Report

Civitas - CO

Sample Delivery Group:	L1750914
Samples Received:	06/26/2024
Project Number:	23181
Description:	Federal 22, 12-10
Report To:	Sam Vogt / Jacob Evans 6855 W. 118th Ave Broomfield, CO 80020

Entire Report Reviewed By:

Chris Ward
Project Manager



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

TABLE OF CONTENTS

12-10-WH-B01R@6' L1750914-01 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 13:25 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG2313940	1	06/29/24 07:42	07/01/24 15:18	ZSA	Mt. Juliet, TN

SP-CS01R@4' L1750914-02 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 13:30 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG2313940	1	06/29/24 07:42	07/01/24 15:20	ZSA	Mt. Juliet, TN

12-10-FL-B01R@3' L1750914-03 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 13:35 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG2313940	1	06/29/24 07:42	07/01/24 15:22	ZSA	Mt. Juliet, TN

SP-CS02R@3' L1750914-04 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 13:40 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG2313940	1	06/29/24 07:42	07/01/24 15:27	ZSA	Mt. Juliet, TN

BG01@3' L1750914-05 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 13:45 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2314089	1	07/06/24 10:57	07/06/24 10:57	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2314250	1	07/03/24 07:56	07/03/24 15:09	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2318066	1	07/05/24 13:57	07/05/24 14:11	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2318073	1	07/05/24 14:02	07/05/24 15:10	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2314113	1	07/03/24 09:13	07/03/24 13:41	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2314076	5	07/02/24 16:19	07/03/24 02:29	SJM	Mt. Juliet, TN

BG01@6' L1750914-06 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 13:50 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2314091	1	07/03/24 10:44	07/03/24 10:44	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2314250	1	07/03/24 07:56	07/03/24 15:18	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2316851	1	07/03/24 11:15	07/03/24 13:23	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2316835	1	07/03/24 11:08	07/03/24 13:37	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2314101	1	07/02/24 15:10	07/02/24 19:57	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2314076	5	07/02/24 16:19	07/03/24 02:32	SJM	Mt. Juliet, TN

BG02@3' L1750914-07 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 13:55 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2314091	1	07/03/24 10:46	07/03/24 10:46	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2314250	1	07/03/24 07:56	07/03/24 15:26	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2316851	1	07/03/24 11:15	07/03/24 13:23	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2316835	1	07/03/24 11:08	07/03/24 13:37	BJM	Mt. Juliet, TN

BG02@3' L1750914-07 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 13:55 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2314101	1	07/02/24 15:10	07/02/24 19:59	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2314076	5	07/02/24 16:19	07/03/24 02:36	SJM	Mt. Juliet, TN

BG02@6' L1750914-08 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 14:00 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2314091	1	07/03/24 10:48	07/03/24 10:48	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2314250	1	07/03/24 07:56	07/03/24 15:35	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2316851	1	07/03/24 11:15	07/03/24 13:23	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2316835	1	07/03/24 11:08	07/03/24 13:37	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2314101	1	07/02/24 15:10	07/02/24 19:38	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2314076	5	07/02/24 16:19	07/03/24 02:46	SJM	Mt. Juliet, TN

BG03@3' L1750914-09 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 14:05 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2314091	1	07/03/24 10:49	07/03/24 10:49	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2314250	1	07/03/24 07:56	07/03/24 15:44	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2316851	1	07/03/24 11:15	07/03/24 13:23	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2316835	1	07/03/24 11:08	07/03/24 13:37	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2314101	1	07/02/24 15:10	07/02/24 19:39	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2314076	5	07/02/24 16:19	07/03/24 02:49	SJM	Mt. Juliet, TN

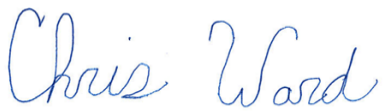
BG03@6' L1750914-10 Solid

Collected by: Sean Clarke | Collected date/time: 06/24/24 14:10 | Received date/time: 06/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2314091	1	07/03/24 10:51	07/03/24 10:51	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2314250	1	07/03/24 07:56	07/03/24 16:47	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2316851	1	07/03/24 11:15	07/03/24 13:23	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2316835	1	07/03/24 11:08	07/03/24 13:37	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2314101	1	07/02/24 15:10	07/02/24 19:41	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2314076	5	07/02/24 16:19	07/03/24 02:52	SJM	Mt. Juliet, TN

CASE NARRATIVE

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



Chris Ward
Project Manager

Report Revision History

Level II Report - Version 1: 07/08/24 12:05
Level II Report - Version 2: 07/08/24 16:36
Level II Report - Version 3: 07/09/24 12:49

Project Narrative

Report reissued 7/10 for updated sample IDs

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	25.7		0.0852	0.500	1	07/01/2024 15:18	WG2313940

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	27.8		0.0852	0.500	1	07/01/2024 15:20	WG2313940
Lead	4.64		0.208	0.500	1	07/01/2024 15:20	WG2313940

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	41.9		0.0852	0.500	1	07/01/2024 15:22	WG2313940
Lead	5.62		0.208	0.500	1	07/01/2024 15:22	WG2313940

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	135		0.0852	0.500	1	07/01/2024 15:27	WG2313940

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.0746		1	07/06/2024 10:57	WG2314089

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/03/2024 15:09	WG2314250

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.60	T8	1	07/05/2024 14:11	WG2318066

Sample Narrative:

L1750914-05 WG2318066: 6.6 at 25.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	10.2	B	10.0	1	07/05/2024 15:10	WG2318073

Sample Narrative:

L1750914-05 WG2318073: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.0358	J	0.0167	0.200	1	07/03/2024 13:41	WG2314113

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.844	J	0.100	1.00	5	07/03/2024 02:29	WG2314076
Barium	32.1		0.152	2.50	5	07/03/2024 02:29	WG2314076
Cadmium	U		0.0855	1.00	5	07/03/2024 02:29	WG2314076
Copper	1.92	J	0.132	5.00	5	07/03/2024 02:29	WG2314076
Lead	2.52		0.0990	2.00	5	07/03/2024 02:29	WG2314076
Nickel	1.94	J	0.197	2.50	5	07/03/2024 02:29	WG2314076
Selenium	0.226	J	0.180	2.50	5	07/03/2024 02:29	WG2314076
Silver	U		0.0865	0.500	5	07/03/2024 02:29	WG2314076
Zinc	7.92	J	0.740	25.0	5	07/03/2024 02:29	WG2314076

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.143		1	07/03/2024 10:44	WG2314091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/03/2024 15:18	WG2314250

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.93	T8	1	07/03/2024 13:23	WG2316851

Sample Narrative:

L1750914-06 WG2316851: 6.93 at 22.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	19.8		10.0	1	07/03/2024 13:37	WG2316835

Sample Narrative:

L1750914-06 WG2316835: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.0279	J	0.0167	0.200	1	07/02/2024 19:57	WG2314101

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.528	J	0.100	1.00	5	07/03/2024 02:32	WG2314076
Barium	23.4		0.152	2.50	5	07/03/2024 02:32	WG2314076
Cadmium	U		0.0855	1.00	5	07/03/2024 02:32	WG2314076
Copper	1.72	J	0.132	5.00	5	07/03/2024 02:32	WG2314076
Lead	1.88	J	0.0990	2.00	5	07/03/2024 02:32	WG2314076
Nickel	1.55	J	0.197	2.50	5	07/03/2024 02:32	WG2314076
Selenium	0.239	J	0.180	2.50	5	07/03/2024 02:32	WG2314076
Silver	U		0.0865	0.500	5	07/03/2024 02:32	WG2314076
Zinc	5.76	J	0.740	25.0	5	07/03/2024 02:32	WG2314076

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.100		1	07/03/2024 10:46	WG2314091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/03/2024 15:26	WG2314250

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.86	T8	1	07/03/2024 13:23	WG2316851

Sample Narrative:

L1750914-07 WG2316851: 6.86 at 23.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	14.1	B	10.0	1	07/03/2024 13:37	WG2316835

Sample Narrative:

L1750914-07 WG2316835: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.0407	J	0.0167	0.200	1	07/02/2024 19:59	WG2314101

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.378	J	0.100	1.00	5	07/03/2024 02:36	WG2314076
Barium	19.2		0.152	2.50	5	07/03/2024 02:36	WG2314076
Cadmium	U		0.0855	1.00	5	07/03/2024 02:36	WG2314076
Copper	1.19	J	0.132	5.00	5	07/03/2024 02:36	WG2314076
Lead	1.34	J	0.0990	2.00	5	07/03/2024 02:36	WG2314076
Nickel	1.12	J	0.197	2.50	5	07/03/2024 02:36	WG2314076
Selenium	0.185	J	0.180	2.50	5	07/03/2024 02:36	WG2314076
Silver	U		0.0865	0.500	5	07/03/2024 02:36	WG2314076
Zinc	4.49	J	0.740	25.0	5	07/03/2024 02:36	WG2314076

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.120		1	07/03/2024 10:48	WG2314091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/03/2024 15:35	WG2314250

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.65	T8	1	07/03/2024 13:23	WG2316851

Sample Narrative:

L1750914-08 WG2316851: 6.65 at 23.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	14.4	B	10.0	1	07/03/2024 13:37	WG2316835

Sample Narrative:

L1750914-08 WG2316835: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.0380	J	0.0167	0.200	1	07/02/2024 19:38	WG2314101

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.465	J	0.100	1.00	5	07/03/2024 02:46	WG2314076
Barium	30.2		0.152	2.50	5	07/03/2024 02:46	WG2314076
Cadmium	U		0.0855	1.00	5	07/03/2024 02:46	WG2314076
Copper	1.22	J	0.132	5.00	5	07/03/2024 02:46	WG2314076
Lead	1.48	J	0.0990	2.00	5	07/03/2024 02:46	WG2314076
Nickel	1.23	J	0.197	2.50	5	07/03/2024 02:46	WG2314076
Selenium	U		0.180	2.50	5	07/03/2024 02:46	WG2314076
Silver	U		0.0865	0.500	5	07/03/2024 02:46	WG2314076
Zinc	5.18	J	0.740	25.0	5	07/03/2024 02:46	WG2314076

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.0534		1	07/03/2024 10:49	WG2314091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/03/2024 15:44	WG2314250

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.18	T8	1	07/03/2024 13:23	WG2316851

Sample Narrative:

L1750914-09 WG2316851: 7.18 at 23.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	32.1		10.0	1	07/03/2024 13:37	WG2316835

Sample Narrative:

L1750914-09 WG2316835: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.0476	J	0.0167	0.200	1	07/02/2024 19:39	WG2314101

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.846	J	0.100	1.00	5	07/03/2024 02:49	WG2314076
Barium	31.6		0.152	2.50	5	07/03/2024 02:49	WG2314076
Cadmium	U		0.0855	1.00	5	07/03/2024 02:49	WG2314076
Copper	2.17	J	0.132	5.00	5	07/03/2024 02:49	WG2314076
Lead	2.80		0.0990	2.00	5	07/03/2024 02:49	WG2314076
Nickel	2.26	J	0.197	2.50	5	07/03/2024 02:49	WG2314076
Selenium	0.338	J	0.180	2.50	5	07/03/2024 02:49	WG2314076
Silver	U		0.0865	0.500	5	07/03/2024 02:49	WG2314076
Zinc	8.74	J	0.740	25.0	5	07/03/2024 02:49	WG2314076

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.101		1	07/03/2024 10:51	WG2314091

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/03/2024 16:47	WG2314250

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.94	T8	1	07/03/2024 13:23	WG2316851

Sample Narrative:

L1750914-10 WG2316851: 6.94 at 23.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	23.4		10.0	1	07/03/2024 13:37	WG2316835

Sample Narrative:

L1750914-10 WG2316835: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.0489	J	0.0167	0.200	1	07/02/2024 19:41	WG2314101

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.773	J	0.100	1.00	5	07/03/2024 02:52	WG2314076
Barium	32.9		0.152	2.50	5	07/03/2024 02:52	WG2314076
Cadmium	U		0.0855	1.00	5	07/03/2024 02:52	WG2314076
Copper	2.04	J	0.132	5.00	5	07/03/2024 02:52	WG2314076
Lead	2.65		0.0990	2.00	5	07/03/2024 02:52	WG2314076
Nickel	2.05	J	0.197	2.50	5	07/03/2024 02:52	WG2314076
Selenium	0.300	J	0.180	2.50	5	07/03/2024 02:52	WG2314076
Silver	U		0.0865	0.500	5	07/03/2024 02:52	WG2314076
Zinc	8.02	J	0.740	25.0	5	07/03/2024 02:52	WG2314076

QUALITY CONTROL SUMMARY

L1750914-05,06,07,08,09,10

Method Blank (MB)

(MB) R4090028-1 07/03/24 14:51

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

L1750914-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1750914-10 07/03/24 16:47 • (DUP) R4090028-7 07/03/24 16:56

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

L1751296-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1751296-04 07/03/24 20:13 • (DUP) R4090028-12 07/03/24 20:22

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	U	0.360	1	200	J P1	20

Laboratory Control Sample (LCS)

(LCS) R4090028-2 07/03/24 15:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	9.94	99.4	80.0-120	

L1750914-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1750914-09 07/03/24 15:44 • (MS) R4090028-3 07/03/24 15:53 • (MSD) R4090028-4 07/03/24 16:02

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	U	20.1	20.3	100	101	1	75.0-125			1.02	20

L1751296-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1751296-01 07/03/24 18:52 • (MS) R4090028-8 07/03/24 19:01 • (MSD) R4090028-9 07/03/24 19:10

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	U	18.8	19.5	94.2	97.7	1	75.0-125			3.67	20

L1751296-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1751296-01 07/03/24 18:52 • (MS) R4090028-10 07/03/24 19:19

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	656	U	695	106	50	75.0-125	

L1750914-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1750914-09 07/03/24 15:44 • (MS) R4090028-5 07/03/24 16:11

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	654	U	645	98.6	50	75.0-125	

L1750858-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1750858-01 07/03/24 13:23 • (DUP) R4089741-2 07/03/24 13:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.50	7.54	1	0.532		1

Sample Narrative:

OS: 7.5 at 23.6C

DUP: 7.54 at 23.5C

L1750945-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1750945-08 07/03/24 13:23 • (DUP) R4089741-3 07/03/24 13:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.91	7.94	1	0.379		1

Sample Narrative:

OS: 7.91 at 23.1C

DUP: 7.94 at 23.2C

Laboratory Control Sample (LCS)

(LCS) R4089741-1 07/03/24 13:23

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

Sample Narrative:

LCS: 10 at 23.1C

L1750914-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1750914-05 07/05/24 14:11 • (DUP) R4090473-2 07/05/24 14:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.60	6.57	1	0.456		1

Sample Narrative:

OS: 6.6 at 25.4C

DUP: 6.57 at 25.5C

L1750945-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1750945-09 07/05/24 14:11 • (DUP) R4090473-3 07/05/24 14:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.25	8.27	1	0.242		1

Sample Narrative:

OS: 8.25 at 24.5C

DUP: 8.27 at 24.2C

Laboratory Control Sample (LCS)

(LCS) R4090473-1 07/05/24 14:11

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

Sample Narrative:

LCS: 10 at 23.2C

Method Blank (MB)

(MB) R4089717-1 07/03/24 13:37

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1749392-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1749392-06 07/03/24 13:37 • (DUP) R4089717-3 07/03/24 13:37

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	897	899	1	0.223		20

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

L1750945-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1750945-08 07/03/24 13:37 • (DUP) R4089717-4 07/03/24 13:37

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	623	633	1	1.59		20

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

Laboratory Control Sample (LCS)

(LCS) R4089717-2 07/03/24 13:37

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	742	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4090498-1 07/05/24 15:10

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1749392-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1749392-01 07/05/24 15:10 • (DUP) R4090498-3 07/05/24 15:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	890	890	1	0.000		20

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

L1750930-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1750930-09 07/05/24 15:10 • (DUP) R4090498-4 07/05/24 15:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	706	707	1	0.142		20

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

Laboratory Control Sample (LCS)

(LCS) R4090498-2 07/05/24 15:10

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	742	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4088873-1 07/01/24 15:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.0852	0.500
Lead	U		0.208	0.500

Laboratory Control Sample (LCS)

(LCS) R4088873-2 07/01/24 15:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	110	110	80.0-120	
Lead	100	104	104	80.0-120	

L1750912-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1750912-03 07/01/24 15:10 • (MS) R4088873-5 07/01/24 15:15 • (MSD) R4088873-6 07/01/24 15:16

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	100	127	193	211	66.2	84.5	1	75.0-125	J6		9.07	20
Lead	100	7.94	90.2	93.9	82.3	86.0	1	75.0-125			4.02	20

Method Blank (MB)

(MB) R4089381-1 07/02/24 19:31

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

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

(LCS) R4089381-2 07/02/24 19:32 • (LCSD) R4089381-3 07/02/24 19:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.07	1.07	107	107	80.0-120			0.286	20

Method Blank (MB)

(MB) R4089932-1 07/03/24 13:36

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

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

(LCS) R4089932-2 07/03/24 13:38 • (LCSD) R4089932-3 07/03/24 13:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.05	1.05	105	105	80.0-120			0.0255	20

Method Blank (MB)

(MB) R4089482-1 07/03/24 02:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Copper	U		0.133	5.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

Laboratory Control Sample (LCS)

(LCS) R4089482-2 07/03/24 02:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	91.8	91.8	80.0-120	
Barium	100	89.8	89.8	80.0-120	
Cadmium	100	96.7	96.7	80.0-120	
Copper	100	97.1	97.1	80.0-120	
Lead	100	95.1	95.1	80.0-120	
Nickel	100	96.5	96.5	80.0-120	
Selenium	100	92.5	92.5	80.0-120	
Silver	20.0	18.8	93.9	80.0-120	
Zinc	100	90.8	90.8	80.0-120	

L1751151-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1751151-03 07/03/24 02:12 • (MS) R4089482-5 07/03/24 02:22 • (MSD) R4089482-6 07/03/24 02:26

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	99.6	0.968	89.0	84.7	88.0	83.8	5	75.0-125			4.89	20
Barium	99.6	59.7	144	135	84.3	74.8	5	75.0-125		J6	6.80	20
Cadmium	99.6	1.90	93.6	88.3	91.7	86.4	5	75.0-125			5.86	20
Copper	99.6	134	121	112	0.000	0.000	5	75.0-125	J6	J6	8.54	20
Lead	99.6	29.6	108	102	78.3	72.3	5	75.0-125		J6	5.80	20
Nickel	99.6	9.64	97.8	93.1	88.1	83.5	5	75.0-125			4.85	20
Selenium	99.6	0.304	88.3	81.8	88.0	81.5	5	75.0-125			7.71	20
Silver	20.0	0.656	18.2	17.3	87.5	83.4	5	75.0-125			4.63	20
Zinc	99.6	51.7	113	105	61.1	53.6	5	75.0-125	J6	J6	6.91	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
Civitas/Tasman - CO
6855 W. 118th Ave
Broomfield, CO 80020

Billing Information:
Accounts Payable
650 Southgate Dr.
Windsor, CO 80550

Pres Chk

Project Manager:
Sam Vogt / Jacob Evans Federal 22, 12-10 2

Email: **svogt@tasman-geo.com; jevans@civitasresources.com**

Project Name: ~~Aristocrat Angus Federal 12-10 SC~~

Please Circle: PT (MT) CT ET

Phone: **610-405-9078**

Lab Project #:

AFE# or C/C: 23181

Collected by (print): Sean Clarke

Site/Facility ID #:

Billing Code #: 8523.198

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___Same Day ___Five Day
___Next Day ___5 Day (Rad Only)
___Two Day ___10 Day (Rad Only)
___Three Day

Quote #

Date Results Needed: STD

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	# of Containers	Full TABLE915 8ozClr-NoPres	Background TABLE915 8ozClr-NoPres	V8260 (GW TABLE915) 40mL Amb-HCl	Chloride, Sulfate 125mL HDPE-NoPres	TDS 1L-HDPE-NoPres	Barium 802	Lead				Remarks	Sample # (lab only)
WH-BΦ1R@6'	Grab	SS	6'	6/24/24	13:25	2						X						-01
SP-CSΦ1R@4'			4'		13:30							X	X					-02
SP-CSΦ2R@5'			5'		13:35							X	X					-03
FL-BΦ1R@3'			3'		13:40							X						-04
BGΦ1@3'			3'		13:45			X										-05
BGΦ1@6'			6'		13:50													-06
BGΦ2@3'			3'		13:55													-07
BGΦ2@6'			6'		14:00													-08
BGΦ3@3'			3'		14:05													-09
BGΦ3@6'	↓	↓	6'	↓	14:10	↓	↓	↓										-10

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard- terms.pdf

SDG # 175091 4

A217

Acctnum: **CIVTASBCO**
Template: **T250702**
Prelogin: **P1068185**
PM: **824 - Chris Ward**
PB:
Shipped Via: **FedEX Ground**

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

Remarks:
pH, EC, SAR by saturated paste preparation method
Boron by hot water soluble preparation method
Table 915-1 Metals - As, Ba, Cd, Cu, Pb, Ni, Se, Ag, Zn, Cr VI

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 7315 3201 3166

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	Sample Receipt Checklist
	6/24/24	17:00	Dale Cortine		COC Seal Present/Intact: __NP __Y __N
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	COC Signed/Accurate: __Y __N
Dale Cortine	6/25/24	1800	FEDEX	6DA7 2.8+.3=3.1	Bottles arrive intact: __Y __N
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6-26-24 Time: 9:06	Correct bottles used: __Y __N
					Sufficient volume sent: __Y __N
					If Applicable
					VOA Zero Headspace: __Y __N
					Preservation Correct/Checked: __Y __N
					RAD Screen <0.5 mR/hr: __Y __N

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK