

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 02, 2024

Sam Vogt

Tasman Geosciences

6855 W. 119th Ave.


Broomfield, CO 80020

RE: Civitas - Mickey 5-F SEP

Work Order #2404076

Enclosed are the results of analyses for samples received by Summit Scientific on 04/04/24 17:06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DEL-V01@1'	2404076-01	Soil	04/04/24 09:00	04/04/24 17:06
DEL-V01@5'	2404076-02	Soil	04/04/24 09:15	04/04/24 17:06
DEL-V01@7'	2404076-03	Soil	04/04/24 09:30	04/04/24 17:06
DEL-S01@1'	2404076-04	Soil	04/04/24 09:45	04/04/24 17:06
DEL-S01@5'	2404076-05	Soil	04/04/24 10:00	04/04/24 17:06
DEL-W01@1'	2404076-06	Soil	04/04/24 10:10	04/04/24 17:06
DEL-W01@5'	2404076-07	Soil	04/04/24 10:20	04/04/24 17:06
DEL-E01@1'	2404076-08	Soil	04/04/24 10:30	04/04/24 17:06
DEL-E01@5'	2404076-09	Soil	04/04/24 10:40	04/04/24 17:06
DEL-N01@1'	2404076-10	Soil	04/04/24 10:50	04/04/24 17:06
DEL-N01@5'	2404076-11	Soil	04/04/24 11:00	04/04/24 17:06

Summit Scientific

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

# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2404078	

Client: Civitas/Tasman		Send Data To:		Send Invoice To:	
Address: 6855 W. 119th Ave		Project Manager: Sam Vogt/Jacob Evans		Company: Civitas	
City/State/Zip: Broomfield, CO 80020		E-Mail: svgot@tasman-geo.com; jevans@civiresources.com		Project Name/Location:	
Phone: PM (610) 405-9078		Project Name: Mickey 5-F SEP		APR: C/C: Cox 0920	
Sampler Name: Daniel Hense		Project Number:		PO/Billing Codes: 8528-102	
				Contact:	

					Preservative				Matrix				Analysis Requested							Special Instructions		
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	SAR	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	
1	DEL-V01 e 1'	4/4/24	9:00	2			X			X			X	X	X	X				X		
2	DEL-V01 e 5'		9:15	1																		
3	DEL-V01 e 7'		9:30																			
4	DEL-S01 e 1'		9:45																			
5	DEL-S01 e 5'		10:00																			
6	DEL-W01 e 1'		10:10																			
7	DEL-W01 e 5'		10:20																			
8	DEL-E01 e 1'		10:30																			
9	DEL-E01 e 5'		10:40																			
10	DEL-N01 e 1'		10:50																			
11	DEL-N01 e 5'	✓	11:00	✓			✓		✓			✓	✓	✓	✓	✓				✓		
12																						
13																						
14																						
15																						

Relinquished by: <i>[Signature]</i> 4/4/24	Date/Time: 16:45	Received by: Tasman Lockbox	Date/Time: 16:45	TAT Business Days	Field DO	Notes:
Relinquished by: <i>[Signature]</i> 4/4/24	Date/Time: 17:00	Received by: <i>[Signature]</i>	Date/Time: 17:00	Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by: <i>[Signature]</i>	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 9.1	Corrected Temperature: 9	IR gun #: 1	HNO3 lot #:			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2404076Client: CWAast (aman)Client Project ID: Mickey S-F SEPShipped Via: H.D./P.U./FedEx/UPS/USPS/Other

Airbill #:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply)

Air

☐

Soil

☒

Solid

☐

Water

☐

Other

☐

Temp (°C)

Thermometer #

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

Custodian Printed Name

Date/Time

AS

4/4/24



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@1'**  
**2404076-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0413	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	8.66	69.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@1'**  
**2404076-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/05/24	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: **04/04/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0164	49.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0146	43.9 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	<b>207</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>58.2</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>646</b>	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

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Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@1'**  
**2404076-01 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	10.2	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.8		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@5'**  
**2404076-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0409	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0422	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.05	72.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@5'**  
**2404076-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/05/24	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: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0178	53.5 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	<b>23.3</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>10.1</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>54.6</b>	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

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Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@5'**  
**2404076-02 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.38	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.0		%	1	BHD0260	04/09/24	04/09/24	Calculation	

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Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@7'**  
**2404076-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0402	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0414	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.04	72.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@7'**  
**2404076-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/05/24	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: **04/04/24 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0190	57.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0207	62.0 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	23.3	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	9.94	0.0500	"	"	"	"	"	"	
Sodium	74.6	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@7'**  
**2404076-03 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.26	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.7		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@1'**  
**2404076-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0401	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0420	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.83	70.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@1'**  
**2404076-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/05/24	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: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0180	54.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0175	52.5 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	41.1	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	5.11	0.0500	"	"	"	"	"	"	
Sodium	15.5	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@1'**  
**2404076-04 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.606</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>92.3</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@5'**  
**2404076-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0394	98.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0415	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.94	79.5 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@5'**  
**2404076-05 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0163	49.0 %	40-150		"	"	"	"	

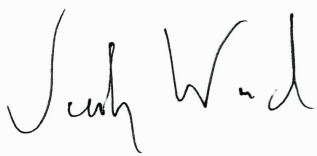
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.2	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	2.21	0.0500	"	"	"	"	"	"	
Sodium	12.5	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

Summit Scientific



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@5'**  
**2404076-05 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.815</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>193</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@1'**  
**2404076-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0406	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.06	64.5 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@1'**  
**2404076-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0137	41.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0142	42.6 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	49.7	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	11.0	0.0500	"	"	"	"	"	"	
Sodium	57.3	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@1'**  
**2404076-06 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.92	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.1		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@5'**  
**2404076-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0389	97.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.27	74.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@5'**  
**2404076-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0147	44.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0150	45.0 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	46.6	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	21.0	0.0500	"	"	"	"	"	"	
Sodium	42.8	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@5'**  
**2404076-07 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.31	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.0		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@1'**  
**2404076-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0404	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.63	69.1 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@1'**  
**2404076-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0204	61.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0199	59.8 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>49.2</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>7.95</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>6.52</b>	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@1'**  
**2404076-08 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.227</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>88.8</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@5'**  
**2404076-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/05/24	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: **04/04/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0368	92.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.72	69.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@5'**  
**2404076-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0184	55.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0175	52.4 %	40-150		"	"	"	"	

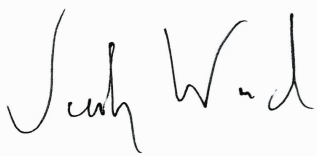
**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>34.4</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
<b>Magnesium</b>	<b>8.81</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>9.69</b>	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@5'**  
**2404076-09 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.381</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>86.5</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@1'**  
**2404076-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/05/24	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: **04/04/24 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0382	95.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.40	75.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@1'**  
**2404076-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0189	56.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0203	60.8 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	48.5	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	5.05	0.0500	"	"	"	"	"	"	
Sodium	2.33	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@1'**  
**2404076-10 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.0851</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>94.8</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@5'**  
**2404076-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/05/24	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: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0409	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0411	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.2	89.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@5'**  
**2404076-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0149	44.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0143	42.9 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	<b>101</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>32.7</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>35.4</b>	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

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Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@5'**  
**2404076-11 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.783</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>84.5</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

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6855 W. 119th Ave.  
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Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

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

### Summit Scientific

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

#### Batch BHD0153 - EPA 5030 Soil MS

##### Blank (BHD0153-BLK1)

Prepared: 04/04/24 Analyzed: 04/05/24

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	0.0349		"	0.0400		87.3	50-150			
Surrogate: Toluene-d8	0.0435		"	0.0400		109	50-150			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	50-150			

##### LCS (BHD0153-BS1)

Prepared: 04/04/24 Analyzed: 04/05/24

Benzene	0.0955	0.0020	mg/kg	0.100		95.5	70-130			
Toluene	0.0957	0.0050	"	0.100		95.7	70-130			
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130			
m,p-Xylene	0.208	0.010	"	0.200		104	70-130			
o-Xylene	0.100	0.0050	"	0.100		100	70-130			
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100		100	70-130			
1,3,5-Trimethylbenzene	0.0992	0.0050	"	0.100		99.2	70-130			
Naphthalene	0.0960	0.0038	"	0.100		96.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0362		"	0.0400		90.5	50-150			
Surrogate: Toluene-d8	0.0418		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.1	50-150			

##### Matrix Spike (BHD0153-MS1)

Source: 2404060-01

Prepared: 04/04/24 Analyzed: 04/05/24

Benzene	0.0831	0.0020	mg/kg	0.100	ND	83.1	70-130			
Toluene	0.0841	0.0050	"	0.100	ND	84.1	70-130			
Ethylbenzene	0.0916	0.0050	"	0.100	ND	91.6	70-130			
m,p-Xylene	0.180	0.010	"	0.200	ND	89.9	70-130			
o-Xylene	0.0901	0.0050	"	0.100	ND	90.1	70-130			
1,2,4-Trimethylbenzene	0.0882	0.0050	"	0.100	ND	88.2	70-130			
1,3,5-Trimethylbenzene	0.0900	0.0050	"	0.100	ND	90.0	70-130			
Naphthalene	0.0708	0.0038	"	0.100	ND	70.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0400		98.0	50-150			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	50-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

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

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

**Batch BHD0153 - EPA 5030 Soil MS**

Matrix Spike Dup (BHD0153-MSD1)		Source: 2404060-01			Prepared: 04/04/24 Analyzed: 04/05/24					
Benzene	0.0854	0.0020	mg/kg	0.100	ND	85.4	70-130	2.71	30	
Toluene	0.0877	0.0050	"	0.100	ND	87.7	70-130	4.12	30	
Ethylbenzene	0.0952	0.0050	"	0.100	ND	95.2	70-130	3.76	30	
m,p-Xylene	0.188	0.010	"	0.200	ND	94.2	70-130	4.68	30	
o-Xylene	0.0917	0.0050	"	0.100	ND	91.7	70-130	1.82	30	
1,2,4-Trimethylbenzene	0.0911	0.0050	"	0.100	ND	91.1	70-130	3.18	30	
1,3,5-Trimethylbenzene	0.0929	0.0050	"	0.100	ND	92.9	70-130	3.12	30	
Naphthalene	0.0729	0.0038	"	0.100	ND	72.9	70-130	2.84	30	
Surrogate: 1,2-Dichloroethane-d4		0.0392	"	0.0400		98.1	50-150			
Surrogate: Toluene-d8		0.0419	"	0.0400		105	50-150			
Surrogate: 4-Bromofluorobenzene		0.0399	"	0.0400		99.8	50-150			

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

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

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

**Batch BHD0156 - EPA 3550A**

**Blank (BHD0156-BLK1)**

Prepared: 04/04/24 Analyzed: 04/05/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	16.2		"	12.5		130	30-150			

**LCS (BHD0156-BS1)**

Prepared: 04/04/24 Analyzed: 04/05/24

C10-C28 (DRO)	411	50	mg/kg	500		82.3	70-130			
Surrogate: o-Terphenyl	10.4		"	12.5		82.9	30-150			

**Matrix Spike (BHD0156-MS1)**

Source: 2404060-01

Prepared: 04/04/24 Analyzed: 04/05/24

C10-C28 (DRO)	395	50	mg/kg	500	12.8	76.4	70-130			
Surrogate: o-Terphenyl	6.97		"	12.5		55.8	30-150			

**Matrix Spike Dup (BHD0156-MSD1)**

Source: 2404060-01

Prepared: 04/04/24 Analyzed: 04/05/24

C10-C28 (DRO)	431	50	mg/kg	500	12.8	83.7	70-130	8.84	20	
Surrogate: o-Terphenyl	7.21		"	12.5		57.6	30-150			

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

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

### Summit Scientific

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

#### Batch BHD0159 - EPA 5030 Soil MS

##### Blank (BHD0159-BLK1)

Prepared & Analyzed: 04/05/24

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	0.0208		"	0.0333		62.5	40-150			
Surrogate: Fluoranthene-d10	0.0185		"	0.0333		55.4	40-150			

##### LCS (BHD0159-BS1)

Prepared & Analyzed: 04/05/24

Acenaphthene	0.0212	0.00500	mg/kg	0.0333		63.6	31-137			
Anthracene	0.0216	0.00500	"	0.0333		64.9	30-120			
Benzo (a) anthracene	0.0167	0.00500	"	0.0333		50.2	30-120			
Benzo (a) pyrene	0.0155	0.00500	"	0.0333		46.4	30-120			
Benzo (b) fluoranthene	0.0161	0.00500	"	0.0333		48.3	30-120			
Benzo (k) fluoranthene	0.0168	0.00500	"	0.0333		50.5	30-120			
Chrysene	0.0204	0.00500	"	0.0333		61.3	30-120			
Dibenz (a,h) anthracene	0.0140	0.00500	"	0.0333		42.1	30-120			
Fluoranthene	0.0177	0.00500	"	0.0333		53.2	30-120			
Fluorene	0.0165	0.00500	"	0.0333		49.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0176	0.00500	"	0.0333		52.9	30-120			
Pyrene	0.0256	0.00500	"	0.0333		76.9	35-142			
1-Methylnaphthalene	0.0239	0.00500	"	0.0333		71.8	35-142			
2-Methylnaphthalene	0.0218	0.00500	"	0.0333		65.4	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0228		"	0.0333		68.4	40-150			
Surrogate: Fluoranthene-d10	0.0188		"	0.0333		56.4	40-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

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

### Summit Scientific

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

#### Batch BHD0159 - EPA 5030 Soil MS

##### Matrix Spike (BHD0159-MS1)

Source: 2404060-01

Prepared & Analyzed: 04/05/24

Acenaphthene	0.0158	0.00500	mg/kg	0.0333	ND	47.3	31-137				
Anthracene	0.0157	0.00500	"	0.0333	ND	47.2	30-120				
Benzo (a) anthracene	0.0147	0.00500	"	0.0333	ND	44.1	30-120				
Benzo (a) pyrene	0.0136	0.00500	"	0.0333	ND	40.7	30-120				
Benzo (b) fluoranthene	0.0150	0.00500	"	0.0333	ND	45.0	30-120				
Benzo (k) fluoranthene	0.0139	0.00500	"	0.0333	ND	41.7	30-120				
Chrysene	0.0161	0.00500	"	0.0333	ND	48.3	30-120				
Dibenz (a,h) anthracene	0.0164	0.00500	"	0.0333	ND	49.2	30-120				
Fluoranthene	0.0165	0.00500	"	0.0333	ND	49.6	30-120				
Fluorene	0.0146	0.00500	"	0.0333	ND	43.8	30-120				
Indeno (1,2,3-cd) pyrene	0.0166	0.00500	"	0.0333	ND	49.7	30-120				
Pyrene	0.0149	0.00500	"	0.0333	ND	44.7	35-142				
1-Methylnaphthalene	0.0155	0.00500	"	0.0333	ND	46.6	15-130				
2-Methylnaphthalene	0.0146	0.00500	"	0.0333	ND	43.8	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0151		"	0.0333		45.3	40-150				
Surrogate: Fluoranthene-d10	0.0163		"	0.0333		49.0	40-150				

##### Matrix Spike Dup (BHD0159-MSD1)

Source: 2404060-01

Prepared & Analyzed: 04/05/24

Acenaphthene	0.0149	0.00500	mg/kg	0.0333	ND	44.8	31-137	5.38	30		
Anthracene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	4.43	30		
Benzo (a) anthracene	0.0163	0.00500	"	0.0333	ND	49.0	30-120	10.4	30		
Benzo (a) pyrene	0.0157	0.00500	"	0.0333	ND	47.1	30-120	14.6	30		
Benzo (b) fluoranthene	0.0161	0.00500	"	0.0333	ND	48.4	30-120	7.36	30		
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333	ND	43.7	30-120	4.81	30		
Chrysene	0.0153	0.00500	"	0.0333	ND	45.8	30-120	5.26	30		
Dibenz (a,h) anthracene	0.0164	0.00500	"	0.0333	ND	49.2	30-120	0.0488	30		
Fluoranthene	0.0170	0.00500	"	0.0333	ND	51.1	30-120	3.06	30		
Fluorene	0.0142	0.00500	"	0.0333	ND	42.5	30-120	3.08	30		
Indeno (1,2,3-cd) pyrene	0.0166	0.00500	"	0.0333	ND	49.8	30-120	0.127	30		
Pyrene	0.0155	0.00500	"	0.0333	ND	46.5	35-142	4.08	30		
1-Methylnaphthalene	0.0164	0.00500	"	0.0333	ND	49.1	15-130	5.29	50		
2-Methylnaphthalene	0.0153	0.00500	"	0.0333	ND	45.9	15-130	4.84	50		
Surrogate: 2-Methylnaphthalene-d10	0.0140		"	0.0333		42.0	40-150				
Surrogate: Fluoranthene-d10	0.0137		"	0.0333		41.2	40-150				

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

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

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

**Batch BHD0421 - General Preparation**

**Blank (BHD0421-BLK1)**

Prepared: 04/12/24 Analyzed: 05/01/24

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

**LCS (BHD0421-BS1)**

Prepared: 04/12/24 Analyzed: 05/01/24

Calcium	5.85	0.0500	mg/L wet	5.00	117	70-130
Magnesium	5.21	0.0500	"	5.00	104	70-130
Sodium	5.24	0.0500	"	5.00	105	70-130

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Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

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

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

**Batch BHD0260 - General Preparation**

Duplicate (BHD0260-DUP1)		Source: 2404066-04			Prepared & Analyzed: 04/09/24					
% Solids	94.2		%		94.3		0.138		20	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

### Notes and Definitions

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