

Madison 23-9

NESW Sec. 9-T1S-R65W

API #: 001-09530

Remediation Project #: 24980

Wellhead and Flowline Decommissioning

October 2022

Prepared by Tasman, Inc.



On behalf of Extraction Oil and Gas, Inc.



FIELD NOTES AND PHOTO LOG

SITE NAME: Madison 23-9							DATE: 10/25/2022	REM. PROJECT #: 24980	WEATHER: Cloudy 61(F)	
SITE DIRECTIONS: Powhatan Rd. & E. 152nd Ave., N. 0.37 mi., E. 0.34 mi., N. INTO							CLIENT: Extraction Oil & Gas INC			
LEGALS AND LAT/LONG: 39.978240, -104.672010							TASMAN PERSONNEL: Sierra Kirylo			
SOIL TYPES: Poorly Graded Sand - SP							SURFACE GRADIENT: North			
SOIL SAMPLING							FACILITY INFRASTRUCTURE			
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo?	Grab or Lab Sample?	EQUIPMENT		Quantity	
							Above Ground Storage Tank (AST)			
10/25/2022 14:00	WH-B01@10'	0.2	Organic Cont	No Odor	Yes	Lab	Buried or Partially Buried Vessel			
10/25/2022 14:02	WH-N01@9'	0.5	Organic Cont	No Odor	Yes	N/A	Separator			
10/25/2022 14:04	WH-S01@9'	0.1	Organic Cont	No Odor	Yes	N/A	Emission Control Device (ECD)			
10/25/2022 14:06	WH-E01@9'	0.1	Organic Cont	No Odor	Yes	N/A	Dump Line			
10/25/2022 14:08	WH-W01@9'	0.0	Organic Cont	No Odor	Yes	N/A	Wellhead		1	
10/25/2022 14:15	SP-CS01	-	Organic Cont	No Odor	N/A	Lab	Flowline		1	
10/25/2022 14:20	SP-CS02	-	Organic Cont	No Odor	N/A	Lab	Method of Closure		Removal	
10/25/2022 14:25	SP-CS03	-	Organic Cont	No Odor	N/A	Lab	Footage Removed		2180	
10/25/2022 14:30	SP-CS04	-	Organic Cont	No Odor	N/A	Lab	Footaged Abandoned in Place			
10/25/2022 14:40	FL-B01@4'	0.3	No Staining	No Odor	Yes	Lab	Other:			
10/25/2022 14:50	FL-B02@3'	0.0	No Staining	Organic Odor	Yes	N/A	Soil Loads Removed			
10/25/2022 14:54	FL-B03@4'	0.0	No Staining	No Odor	Yes	N/A	IMPACTED SOIL IDENTIFIED?			
10/25/2022 14:58	FL-B04@4'	0.0	No Staining	No Odor	Yes	N/A	ESTIMATED VOLUME OF IMPACTS:			
10/25/2022 15:02	FL-B05@4'	0.0	No Staining	No Odor	Yes	N/A	Date	Number	CY	
10/25/2022 15:06	FL-B06@3'	0.0	No Staining	No Odor	Yes	N/A				
10/25/2022 15:10	FL-B07@4'	0.2	No Staining	No Odor	Yes	N/A				
10/25/2022 15:14	FL-B08@4'	0.0	No Staining	No Odor	Yes	N/A				
10/25/2022 15:18	FL-B09@4'	0.0	No Staining	No Odor	Yes	Lab				
10/25/2022 15:30	BG01@4'	0.0	No Staining	No Odor	Yes	Lab	Total Removed		0 0	
10/25/2022 15:35	BG01@10'	0.0	Organic Cont	No Odor	Yes	Lab	Disposal Facility:			
10/25/2022 15:40	BG02@4'	0.0	No Staining	No Odor	Yes	Lab	Groundwater Recovery			
10/25/2022 15:45	BG02@6'	0.3	No Staining	No Odor	Yes	Lab	DATE GW ENCOUNTERED:		DEPTH:	
10/25/2022 16:00	SP-CS05	-	No Staining	No Odor	N/A	Lab	GROUNDWATER IN CONTACT WITH IMPACTED SOIL?			
							LNAPL OR SHEEN OBSERVED ON GW?			
GROUNDWATER SAMPLING							Date		BBLS	
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?				
							Total Removed		0	
							Disposal Facility:			



Photographic Log

					
Equipment ID:		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Soil sampling and screening locations			Notes/Conditions: Soil screening and sampling locations		



Photographic Log

					
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Surface of excavation			Notes/Conditions: Background location to the east of the wellhead		



Photographic Log



Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil screening location			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil screening location			



Photographic Log



Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: Soil screening location				Notes/Conditions: Soil screening location			



Photographic Log



Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: Soil screening location				Notes/Conditions: Soil screening location			



Photographic Log



Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: Soil screening location				Notes/Conditions: Soil sampling location			



Photographic Log

					
Equipment ID:		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Surroundings to the north at wellhead			Notes/Conditions: Surroundings to the east at wellhead		



Photographic Log



Photographic Log

Equipment ID:		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: Background location to the north of the TB pad			Notes/Conditions:		

FIGURES

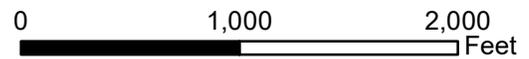
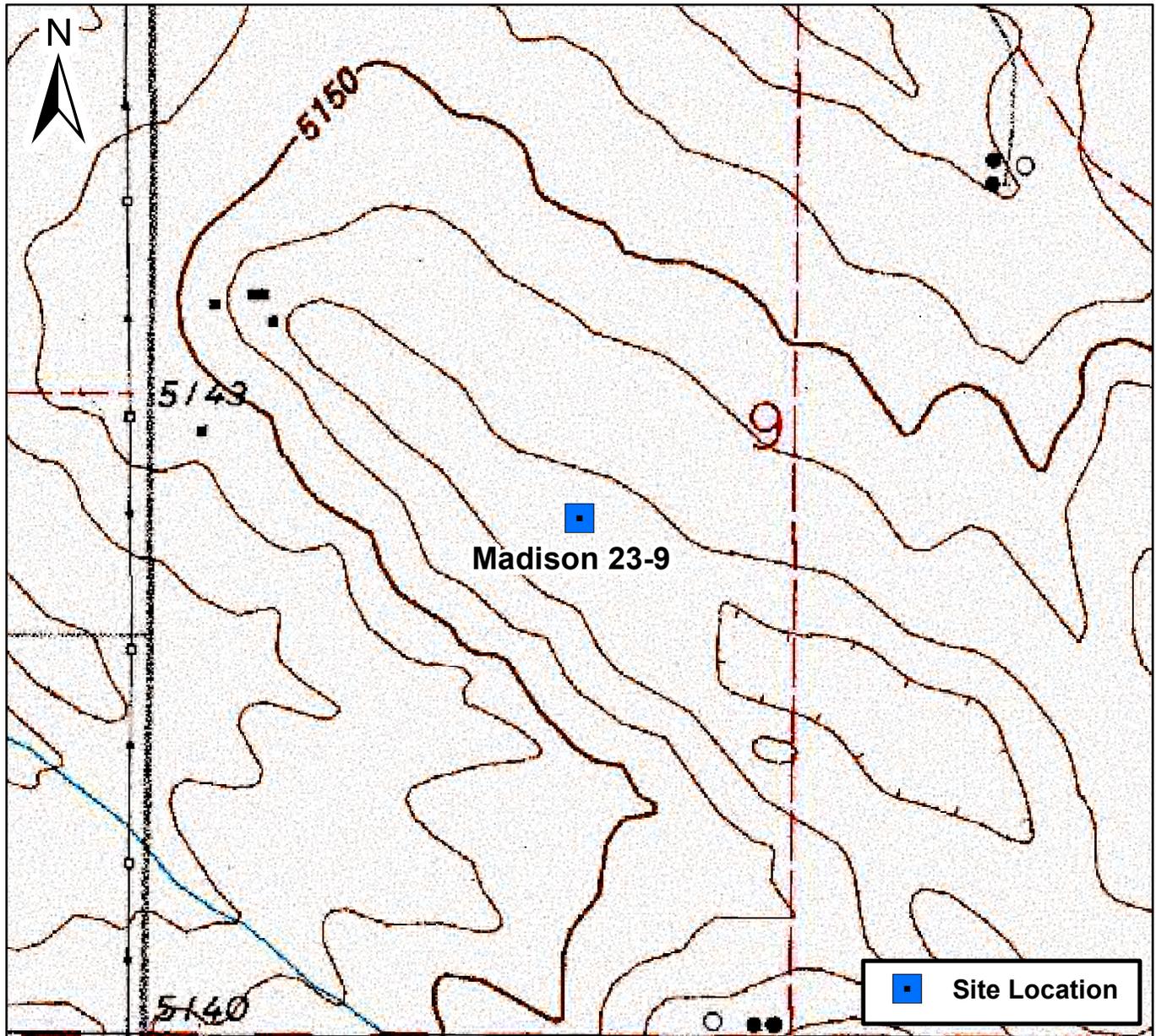


Figure 1

Site Location Map
 Madison 23-9
 NESW Sec. 9-T1S-R65W
 Adams County, Colorado





DATE:	November 2022
DESIGNED BY:	S. Vogt
DRAWN BY:	L. Reed



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

Extraction Oil & Gas, Inc.
Madison 23-9
 NESW Sec. 9-T1S-R65W
 Adams County, Colorado

Wellhead Soil Sample
 Location Map
 (10/25/2022)

**Figure
 2A**



DATE:	November 2022
DESIGNED BY:	S. Vogt
DRAWN BY:	L. Reed


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 6855 W. 119th Ave
 Broomfield, CO 80020

Extraction Oil & Gas, Inc.
Madison 23-9
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 Adams County, Colorado

Flowline Soil Sample
 Location Map
 (10/25/2022)

Figure
2B

TABLES

TABLE 1
MADISON 23-9
SOIL SAMPLE LOCATIONS
EXTRACTION OIL GAS, INC.



Soil Sample Location	Date	PID Reading (ppm)	Visual Observation	Olfactory Observation	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
WH-B01@10'	10/25/2022	0.2	Organic Cont	No Odor	39.97823342	-104.6720012	1.4	Y
WH-N01@9'	10/25/2022	0.5	Organic Cont	No Odor	39.97824233	-104.6719851	1.2	N
WH-S01@9'	10/25/2022	0.1	Organic Cont	No Odor	39.97822086	-104.672025	1.4	N
WH-E01@9'	10/25/2022	0.1	Organic Cont	No Odor	39.97823131	-104.6719933	1.1	N
WH-W01@9'	10/25/2022	0.0	Organic Cont	No Odor	39.97824499	-104.6720139	1.1	N
SP-CS01	10/25/2022	-	Organic Cont	No Odor	-	-	-	Y
SP-CS02	10/25/2022	-	Organic Cont	No Odor	-	-	-	Y
SP-CS03	10/25/2022	-	Organic Cont	No Odor	-	-	-	Y
SP-CS04	10/25/2022	-	Organic Cont	No Odor	-	-	-	Y
FL-B01@4'	10/25/2022	0.3	No Staining	No Odor	39.97821882	-104.6720114	0.9	Y
FL-B02@3'	10/25/2022	0.0	No Staining	Organic Odor	39.97737613	-104.6714129	1	N
FL-B03@4'	10/25/2022	0.0	No Staining	No Odor	39.97671145	-104.6711563	1	N
FL-B04@4'	10/25/2022	0.0	No Staining	No Odor	39.97616746	-104.6709337	1	N
FL-B05@4'	10/25/2022	0.0	No Staining	No Odor	39.97539895	-104.6706322	1	N
FL-B06@3'	10/25/2022	0.0	No Staining	No Odor	39.97451541	-104.6703412	1.1	N
FL-B07@4'	10/25/2022	0.2	No Staining	No Odor	39.97377344	-104.67008	1.1	N
FL-B08@4'	10/25/2022	0.0	No Staining	No Odor	39.97324874	-104.6698853	1.2	N
FL-B09@4'	10/25/2022	0.0	No Staining	No Odor	39.97255441	-104.6696275	1.2	Y
BG01@4'	10/25/2022	0.0	No Staining	No Odor	39.97812971	-104.6718304	0.9	Y
BG01@10'	10/25/2022	0.0	Organic Cont	No Odor	39.97812971	-104.6718304	0.9	Y
BG02@4'	10/25/2022	0.0	No Staining	No Odor	39.97271157	-104.6692055	1.1	Y
BG02@6'	10/25/2022	0.3	No Staining	No Odor	39.97271157	-104.6692055	1.1	Y
SP-CS05	10/25/2022	-	No Staining	No Odor	-	-	-	Y

Notes:

PID = Photoionization detector
 ppm = Parts per million
 HC = Hydrocarbon
 GPS = Global positioning system
 PDOP = Position dilution of precision
 NA = Not Applicable

TABLE 2
MADISON 23-9
SOIL ANALYTICAL DATA - VOCs
EXTRACTION OIL GAS, INC.

Soil Sample Location	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)
COGCC standards for soil (mg/kg)⁽¹⁾		0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
COGCC standards for soil (mg/kg)⁽²⁾		1.2	490	5.8	58	2	500			30	27
FL-B01@4'	10/25/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	490	110	<0.0050	<0.0050
FL-B09@4'	10/25/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	97	<50	<0.0050	<0.0050
SP-CS01	10/25/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS02	10/25/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS03	10/25/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS04	10/25/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS05	10/25/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
WH-B01@10'	10/25/2022	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050

Notes:

VOCs = Volatile Organic Compounds

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

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

COGCC = Colorado Oil and Gas Conservation Commission

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

mg/kg = Milligrams per kilogram

TVPH - GRO = Total volatile petroleum hydrocarbons - gasoline range organics

TEPH - DRO = Total extractable petroleum hydrocarbons - diesel range organics

TEPH - ORO = Total extractable petroleum hydrocarbons - oil range organics

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

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

BOLD = Analytical result is in exceedance of COGCC Table 915-1 soil standards

**TABLE 3
MADISON 23-9
SOIL ANALYTICAL DATA - PAHs
EXTRACTION OIL GAS, INC.**

Soil Sample Location	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
COGCC standards for soil (mg/kg) ⁽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
COGCC standards for soil (mg/kg) ⁽²⁾		360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
FL-B01@4'	10/25/2022	<0.00500	0.00528	0.0259	0.0345	0.0130	0.0260	0.0309	<0.00500	0.0640	<0.00500	0.0198	<0.00500	<0.00500	0.0462
FL-B09@4'	10/25/2022	0.00655	0.0297	0.0608	0.0725	0.0276	0.0540	0.0751	0.00595	0.211	0.0108	0.0401	<0.00500	<0.00500	0.146
WH-B01@10'	10/25/2022	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Notes:

PAHs = Polycyclic Aromatic Hydrocarbons

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

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

COGCC = Colorado Oil and Gas Conservation Commission

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

mg/kg = Milligrams per kilogram

Benzo(a)A = Benzo(a)anthracene

Benzo(b)F = Benzo(b)fluoranthene

Benzo(k)F = Benzo(k)fluoranthene

Benzo(a)P = Benzo(a)pyrene

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

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

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

BOLD = Analytical result is in exceedance of COGCC Table 915-1 soil standards

**TABLE 4
MADISON 23-9
SOIL ANALYTICAL DATA - METALS
EXTRACTION OIL GAS, INC.**

Soil Sample Location	Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
COGCC standards for soil (mg/kg)⁽¹⁾		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
COGCC standards for soil (mg/kg)⁽²⁾		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
FL-B01@4'	10/25/2022	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
FL-B09@4'	10/25/2022	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
BACKGROUND											
BG01@10'	10/25/2022	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
BG01@4'	10/25/2022	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
BG02@4'	10/25/2022	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
BG02@6'	10/25/2022	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending

Notes:

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

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

COGCC = Colorado Oil and Gas Conservation Commission

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

mg/kg = Milligrams per kilogram

BOLD = Analytical result is in exceedance of COGCC Table 915-1 soil standards

Italics = Laboratory minimum detection limit exceeds the COGCC Table 915-1 standard

Pending = Analytical results pending final laboratory reporting

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

**TABLE 5
MADISON 23-9
SOIL ANALYTICAL DATA - SOIL RECLAMATION
EXTRACTION OIL GAS, INC.**

Soil Sample Location	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
COGCC standards for soil (mg/kg) ⁽¹⁾		6 - 8.3	< 6	< 4	2
FL-B01@4'	10/25/2022	7.73	0.0859	3.06	0.146
FL-B09@4'	10/25/2022	7.74	0.105	2.64	0.117
WH-B01@10'	10/25/2022	8.49*	1.07	0.264	0.300
BACKGROUND					
BG01@10'	10/25/2022	8.57	2.86	0.317	0.335
BG01@4'	10/25/2022	7.62	0.137	0.202	0.0944
BG02@4'	10/25/2022	8.29	0.979	0.283	0.0891
BG02@6'	10/25/2022	8.37	1.01	0.405	0.112

Notes:

(1) Standards for soil are taken from COGCC Table 915-1, effective January 15, 2021

COGCC = Colorado Oil and Gas Conservation Commission

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

mmhos/cm = Millmhos per centimeter

mg/L = Milligrams per liter

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

BOLD = Analytical result is in exceedance of COGCC Table 915-1 soil standards

* Result exceeded the COGCC Table 915-1 standard, but was within background levels

LABORATORY ANALYTICAL DATA

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 03, 2022

Sam Vogt

Civitas Resources

650 Southgate Drive

Windsor, CO 80550

RE: Madison 23-9 WH

Work Order #2210452

Enclosed are the results of analyses for samples received by Summit Scientific on 10/25/22 17:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury

President



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344

Project Manager: Sam Vogt

Reported:
11/03/22 09:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-B01@10'	2210452-01	Soil	10/25/22 14:00	10/25/22 17:45
SP-CS01	2210452-02	Soil	10/25/22 14:15	10/25/22 17:45
SP-CS02	2210452-03	Soil	10/25/22 14:20	10/25/22 17:45
SP-CS03	2210452-04	Soil	10/25/22 14:25	10/25/22 17:45
SP-CS04	2210452-05	Soil	10/25/22 14:30	10/25/22 17:45
FL-B01@4'	2210452-06	Soil	10/25/22 14:40	10/25/22 17:45
FL-B09@4'	2210452-07	Soil	10/25/22 15:18	10/25/22 17:45
BG01@4'	2210452-08	Soil	10/25/22 15:30	10/25/22 17:45
BG01@10'	2210452-09	Soil	10/25/22 15:35	10/25/22 17:45
BG02@4'	2210452-10	Soil	10/25/22 15:40	10/25/22 17:45
BG02@6'	2210452-11	Soil	10/25/22 15:45	10/25/22 17:45
SP-CS05	2210452-12	Soil	10/25/22 16:00	10/25/22 17:45

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

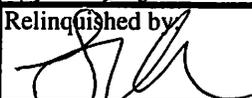
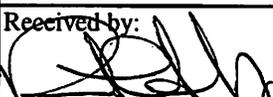
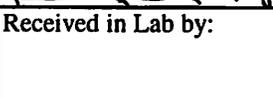
2210452.1

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 2

Client: CIVITAS/Tasman
Address: 6855 W. 119th St
City/State/Zip: Broomfield, CO 80020
Phone: 610-405-9078 Fax: _____
Sampler Name: Sierra King

Project Manager: Sam Vogt, Jacob Evans
E-Mail: svogt@tasman-geo.com, j.evans@civiresources.com
Project Name: MADISON 23-9 WH
Project Number: AFE # 22344

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:								Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEXN	TMS	TPH	PAHS	PH*	EC*	SAR*		Boron**	
WH-B01e10'	10-25-22	1400	2			X			X				X	X	X	X	X	X	X		
SP-CS01		1415	1										X	X	X						
SP-CS02		1420	1																		
SP-CS03		1425	1																		
SP-CS04		1430	1																		
FL-B01e4'		1440	2										X	X	X	X	X	X	X	X	
FL-B09e4'		1518	2										X	X	X	X	X	X	X	X	
BG01e4'		1530	1											X	X	X	X	X	X		
BG01e10'		1535	1																		
BG02e4'		1540	1																		
Relinquished by: 				Date/Time: 10/25/22 1715				Received by: 				Date/Time: 10/25/22 1745				Turn Around Time (Check)				Notes:	
Relinquished by: Tasman Lockbox				Date/Time: 10/25/22 1745				Received by: 				Date/Time: 10/25/22 1745				Same Day <input type="checkbox"/>				72 Hours <input type="checkbox"/>	* Sat. paste ** hot water
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:				48 Hours <input type="checkbox"/>				Standard <input checked="" type="checkbox"/>	
																Sample Integrity:					
																Temperature Upon Receipt: 8.0					
																Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>					

S₂

2/2
Sample Receipt Checklist

S2 Work Order# 2210452

Client: Civitas Trasman Client Project ID: Madison 23-9 WH

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

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? ⁽¹⁾ 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"/>	on ICE
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<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)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ 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):

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

Custodian/Printed Name

10-25-22
Date/Time



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

WH-B01@10'
2210452-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/25/22 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFJ0727	10/26/22	10/28/22	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: **10/25/22 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		116 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		111 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/25/22 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFJ0730	10/26/22	10/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/25/22 14:00**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH
Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

WH-B01@10'
2210452-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/25/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0786	10/28/22	10/29/22	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: **10/25/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/25/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.300	0.0100	mg/L	1	BFJ0712	10/26/22	10/27/22	EPA 6020B	

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

Date Sampled: **10/25/22 14:00**

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

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

WH-B01@10'
2210452-01 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	24.4	0.0563	mg/L dry	1	BFJ0779	10/27/22	10/28/22	EPA 6020B	
Magnesium	13.9	0.0563	"	"	"	"	"	"	
Sodium	26.8	0.0563	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/25/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.07	0.00100	units	1	BFJ0836	10/31/22	10/31/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/25/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.9		%	1	BFJ0716	10/26/22	10/26/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/25/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.264	0.0100	mmhos/cm	1	BFJ0817	10/28/22	10/28/22	EPA 120.1	

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

Date Sampled: **10/25/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.49		pH Units	1	BFJ0816	10/28/22	10/28/22	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

SP-CS01
2210452-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/25/22 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFJ0727	10/26/22	10/28/22	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: **10/25/22 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		110 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/25/22 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0730	10/26/22	10/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/25/22 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		65.4 %	30-150		"	"	"	"	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

SP-CS02
2210452-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/25/22 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFJ0727	10/26/22	10/28/22	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: **10/25/22 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		110 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/25/22 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0730	10/26/22	10/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/25/22 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		49.9 %	30-150		"	"	"	"	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

SP-CS03
2210452-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/25/22 14:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFJ0727	10/26/22	10/28/22	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: **10/25/22 14:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		112 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/25/22 14:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0730	10/26/22	10/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/25/22 14:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		56.5 %	30-150		"	"	"	"	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

SP-CS04
2210452-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/25/22 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFJ0727	10/26/22	10/28/22	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: **10/25/22 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		110 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		109 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/25/22 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0730	10/26/22	10/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/25/22 14:30**

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

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

FL-B01@4'
2210452-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFJ0727	10/26/22	10/28/22	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: **10/25/22 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		109 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	490	50		mg/kg	1	BFJ0730	10/26/22	10/27/22	EPA 8015M	
C28-C36 (ORO)	110	50		"	"	"	"	"	"	

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		86.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

FL-B01@4'
2210452-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFJ0786	10/28/22	10/29/22	EPA 8270D SIM	
Anthracene	0.00528	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0259	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0260	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0345	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0130	0.00500	"	"	"	"	"	"	
Chrysene	0.0309	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0640	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0198	0.00500	"	"	"	"	"	"	
Pyrene	0.0462	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		50.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.146	0.0100	mg/L	1	BFJ0712	10/26/22	10/27/22	EPA 6020B	

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

Date Sampled: **10/25/22 14:40**

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

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344

Project Manager: Sam Vogt

Reported:
11/03/22 09:29

FL-B01@4'
2210452-06 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	538	0.0535	mg/L dry	1	BFJ0779	10/27/22	10/28/22	EPA 6020B	
Magnesium	151	0.0535	"	"	"	"	"	"	
Sodium	8.75	0.0535	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0859	0.00100	units	1	BFJ0836	10/31/22	10/31/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.5		%	1	BFJ0716	10/26/22	10/26/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.06	0.0100	mmhos/cm	1	BFJ0817	10/28/22	10/28/22	EPA 120.1	

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

Date Sampled: **10/25/22 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.73		pH Units	1	BFJ0816	10/28/22	10/28/22	EPA 9045D	

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

FL-B09@4'
2210452-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFJ0727	10/26/22	10/28/22	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: **10/25/22 15:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		112 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	97	50	mg/kg	1	BFJ0730	10/26/22	10/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		81.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

FL-B09@4'
2210452-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.00655	0.00500	mg/kg	1	BFJ0786	10/28/22	10/29/22	EPA 8270D SIM	
Anthracene	0.0297	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0608	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0540	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0725	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0276	0.00500	"	"	"	"	"	"	
Chrysene	0.0751	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	0.00595	0.00500	"	"	"	"	"	"	
Fluoranthene	0.211	0.00500	"	"	"	"	"	"	
Fluorene	0.0108	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0401	0.00500	"	"	"	"	"	"	
Pyrene	0.146	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	63.2 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	83.2 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.117	0.0100	mg/L	1	BFJ0712	10/26/22	10/27/22	EPA 6020B	

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

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	500	0.0584	mg/L dry	1	BFJ0779	10/27/22	10/28/22	EPA 6020B	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

FL-B09@4'
2210452-07 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	140	0.0584	mg/L dry	1	BFJ0779	10/27/22	10/28/22	EPA 6020B	
Sodium	10.3	0.0584	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.105	0.00100	units	1	BFJ0836	10/31/22	10/31/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.7		%	1	BFJ0716	10/26/22	10/26/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.64	0.0100	mmhos/cm	1	BFJ0817	10/28/22	10/28/22	EPA 120.1	

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

Date Sampled: **10/25/22 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.74		pH Units	1	BFJ0816	10/28/22	10/28/22	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH
Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

BG01@4'
2210452-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/25/22 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0944	0.0100	mg/L	1	BFJ0712	10/26/22	10/27/22	EPA 6020B	

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

Date Sampled: **10/25/22 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	188	0.0527	mg/L dry	1	BFJ0779	10/27/22	10/29/22	EPA 6020B	
Magnesium	86.2	0.0527	"	"	"	"	"	"	
Sodium	9.05	0.0527	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/25/22 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.137	0.00100	units	1	BFJ0836	10/31/22	10/31/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/25/22 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.8		%	1	BFJ0716	10/26/22	10/26/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/25/22 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.202	0.0100	mmhos/cm	1	BFJ0817	10/28/22	10/28/22	EPA 120.1	

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

Summit Scientific

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
 Project Manager: Sam Vogt

Reported:
 11/03/22 09:29

BG01@4'
2210452-08 (Soil)

Summit Scientific

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

Date Sampled: **10/25/22 15:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.62		pH Units	1	BFJ0816	10/28/22	10/28/22	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

BG01@10'
2210452-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/25/22 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.335	0.0100	mg/L	1	BFJ0712	10/26/22	10/27/22	EPA 6020B	

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

Date Sampled: **10/25/22 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.4	0.0535	mg/L dry	1	BFJ0779	10/27/22	10/29/22	EPA 6020B	
Magnesium	7.66	0.0535	"	"	"	"	"	"	
Sodium	54.0	0.0535	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/25/22 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.86	0.00100	units	1	BFJ0836	10/31/22	10/31/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/25/22 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.4		%	1	BFJ0716	10/26/22	10/26/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/25/22 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.317	0.0100	mmhos/cm	1	BFJ0817	10/28/22	10/28/22	EPA 120.1	

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

Summit Scientific

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
 Project Manager: Sam Vogt

Reported:
 11/03/22 09:29

BG01@10'
2210452-09 (Soil)

Summit Scientific

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

Date Sampled: **10/25/22 15:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.57		pH Units	1	BFJ0816	10/28/22	10/28/22	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH
Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

BG02@4'
2210452-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/25/22 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0891	0.0100	mg/L	1	BFJ0712	10/26/22	10/27/22	EPA 6020B	

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

Date Sampled: **10/25/22 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	39.7	0.0523	mg/L dry	1	BFJ0779	10/27/22	10/29/22	EPA 6020B	
Magnesium	6.90	0.0523	"	"	"	"	"	"	
Sodium	25.4	0.0523	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/25/22 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.979	0.00100	units	1	BFJ0836	10/31/22	10/31/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/25/22 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.6		%	1	BFJ0716	10/26/22	10/26/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/25/22 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.283	0.0100	mmhos/cm	1	BFJ0817	10/28/22	10/28/22	EPA 120.1	

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

Summit Scientific

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
 Project Manager: Sam Vogt

Reported:
 11/03/22 09:29

BG02@4'
2210452-10 (Soil)

Summit Scientific

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

Date Sampled: **10/25/22 15:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.29		pH Units	1	BFJ0816	10/28/22	10/28/22	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

BG02@6'
2210452-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/25/22 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.112	0.0100	mg/L	1	BFJ0712	10/26/22	10/27/22	EPA 6020B	

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

Date Sampled: **10/25/22 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.1	0.0548	mg/L dry	1	BFJ0779	10/27/22	10/29/22	EPA 6020B	
Magnesium	24.2	0.0548	"	"	"	"	"	"	
Sodium	31.0	0.0548	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/25/22 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.01	0.00100	units	1	BFJ0836	10/31/22	10/31/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/25/22 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.2		%	1	BFJ0716	10/26/22	10/26/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/25/22 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.405	0.0100	mmhos/cm	1	BFJ0817	10/28/22	10/28/22	EPA 120.1	

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

Summit Scientific

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344

Project Manager: Sam Vogt

Reported:
 11/03/22 09:29

BG02@6'
2210452-11 (Soil)

Summit Scientific

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

Date Sampled: **10/25/22 15:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.37		pH Units	1	BFJ0816	10/28/22	10/28/22	EPA 9045D	

Summit Scientific



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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

SP-CS05
2210452-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/25/22 16:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFJ0727	10/26/22	10/28/22	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: **10/25/22 16:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		110 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/25/22 16:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFJ0730	10/26/22	10/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/25/22 16:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		56.5 %	30-150		"	"	"	"	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BFJ0727 - EPA 5030 Soil MS

Blank (BFJ0727-BLK1)

Prepared: 10/26/22 Analyzed: 10/28/22

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	0.0356		"	0.0400		89.1	50-150				
Surrogate: Toluene-d8	0.0434		"	0.0400		108	50-150				
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.3	50-150				

LCS (BFJ0727-BS1)

Prepared: 10/26/22 Analyzed: 10/28/22

Benzene	0.0888	0.0020	mg/kg	0.100		88.8	70-130				
Toluene	0.0726	0.0050	"	0.100		72.6	70-130				
Ethylbenzene	0.0980	0.0050	"	0.100		98.0	70-130				
m,p-Xylene	0.196	0.010	"	0.200		97.9	70-130				
o-Xylene	0.0940	0.0050	"	0.100		94.0	70-130				
1,2,4-Trimethylbenzene	0.0950	0.0050	"	0.100		95.0	70-130				
1,3,5-Trimethylbenzene	0.0968	0.0050	"	0.100		96.8	70-130				
Naphthalene	0.112	0.0038	"	0.100		112	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0322		"	0.0400		80.6	50-150				
Surrogate: Toluene-d8	0.0414		"	0.0400		103	50-150				
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	50-150				

Matrix Spike (BFJ0727-MS1)

Source: 2210403-04

Prepared: 10/26/22 Analyzed: 10/28/22

Benzene	0.0839	0.0020	mg/kg	0.100	ND	83.9	70-130				
Toluene	0.0829	0.0050	"	0.100	ND	82.9	70-130				
Ethylbenzene	0.0710	0.0050	"	0.100	ND	71.0	70-130				
m,p-Xylene	0.168	0.010	"	0.200	ND	84.0	70-130				
o-Xylene	0.0729	0.0050	"	0.100	ND	72.9	70-130				
1,2,4-Trimethylbenzene	0.0811	0.0050	"	0.100	ND	81.1	70-130				
1,3,5-Trimethylbenzene	0.0811	0.0050	"	0.100	ND	81.1	70-130				
Naphthalene	0.103	0.0038	"	0.100	ND	103	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0436		"	0.0400		109	50-150				
Surrogate: Toluene-d8	0.0520		"	0.0400		130	50-150				
Surrogate: 4-Bromofluorobenzene	0.0431		"	0.0400		108	50-150				

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BFJ0727 - EPA 5030 Soil MS

Matrix Spike Dup (BFJ0727-MSD1)	Source: 2210403-04			Prepared: 10/26/22 Analyzed: 10/28/22						
Benzene	0.0736	0.0020	mg/kg	0.100	ND	73.6	70-130	13.1	30	
Toluene	0.0775	0.0050	"	0.100	ND	77.5	70-130	6.70	30	
Ethylbenzene	0.0759	0.0050	"	0.100	ND	75.9	70-130	6.74	30	
m,p-Xylene	0.150	0.010	"	0.200	ND	75.0	70-130	11.4	30	
o-Xylene	0.0790	0.0050	"	0.100	ND	79.0	70-130	8.14	30	
1,2,4-Trimethylbenzene	0.0813	0.0050	"	0.100	ND	81.3	70-130	0.222	30	
1,3,5-Trimethylbenzene	0.0783	0.0050	"	0.100	ND	78.3	70-130	3.50	30	
Naphthalene	0.101	0.0038	"	0.100	ND	101	70-130	2.32	30	
Surrogate: 1,2-Dichloroethane-d4	0.0381		"	0.0400		95.2	50-150			
Surrogate: Toluene-d8	0.0451		"	0.0400		113	50-150			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	50-150			

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BFJ0730 - EPA 3550A

Blank (BFJ0730-BLK1)

Prepared: 10/26/22 Analyzed: 10/27/22

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	8.20		"	12.5		65.6	30-150				

LCS (BFJ0730-BS1)

Prepared: 10/26/22 Analyzed: 10/27/22

C10-C28 (DRO)	510	50	mg/kg	500		102	70-130				
Surrogate: <i>o</i> -Terphenyl	8.65		"	12.5		69.2	30-150				

Matrix Spike (BFJ0730-MS1)

Source: 2210403-04

Prepared: 10/26/22 Analyzed: 10/27/22

C10-C28 (DRO)	443	50	mg/kg	500	27.9	83.1	70-130				
Surrogate: <i>o</i> -Terphenyl	8.04		"	12.5		64.3	30-150				

Matrix Spike Dup (BFJ0730-MSD1)

Source: 2210403-04

Prepared: 10/26/22 Analyzed: 10/27/22

C10-C28 (DRO)	483	50	mg/kg	500	27.9	91.1	70-130	8.66	20		
Surrogate: <i>o</i> -Terphenyl	9.29		"	12.5		74.3	30-150				

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BFJ0786 - EPA 5030 Soil MS

Blank (BFJ0786-BLK1)

Prepared & Analyzed: 10/28/22

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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0235</i>		"	<i>0.0333</i>		<i>70.4</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0296</i>		"	<i>0.0333</i>		<i>88.9</i>	<i>40-150</i>			

LCS (BFJ0786-BS1)

Prepared & Analyzed: 10/28/22

Acenaphthene	0.0349	0.00500	mg/kg	0.0333		105	31-137			
Anthracene	0.0358	0.00500	"	0.0333		107	30-120			
Benzo (a) anthracene	0.0320	0.00500	"	0.0333		95.9	30-120			
Benzo (a) pyrene	0.0308	0.00500	"	0.0333		92.5	30-120			
Benzo (b) fluoranthene	0.0299	0.00500	"	0.0333		89.7	30-120			
Benzo (k) fluoranthene	0.0302	0.00500	"	0.0333		90.6	30-120			
Chrysene	0.0324	0.00500	"	0.0333		97.3	30-120			
Dibenz (a,h) anthracene	0.0285	0.00500	"	0.0333		85.6	30-120			
Fluoranthene	0.0336	0.00500	"	0.0333		101	30-120			
Fluorene	0.0342	0.00500	"	0.0333		103	30-120			
Indeno (1,2,3-cd) pyrene	0.0289	0.00500	"	0.0333		86.6	30-120			
Pyrene	0.0321	0.00500	"	0.0333		96.2	35-142			
1-Methylnaphthalene	0.0316	0.00500	"	0.0333		94.7	35-142			
2-Methylnaphthalene	0.0271	0.00500	"	0.0333		81.3	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0304</i>		"	<i>0.0333</i>		<i>91.1</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0355</i>		"	<i>0.0333</i>		<i>107</i>	<i>40-150</i>			

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BFJ0786 - EPA 5030 Soil MS

Matrix Spike (BFJ0786-MS1)		Source: 2210442-01			Prepared & Analyzed: 10/28/22						
Acenaphthene	0.0225	0.00500	mg/kg	0.0333	ND	67.4	31-137				
Anthracene	0.0222	0.00500	"	0.0333	ND	66.7	30-120				
Benzo (a) anthracene	0.0187	0.00500	"	0.0333	ND	56.1	30-120				
Benzo (a) pyrene	0.0170	0.00500	"	0.0333	ND	51.0	30-120				
Benzo (b) fluoranthene	0.0168	0.00500	"	0.0333	ND	50.4	30-120				
Benzo (k) fluoranthene	0.0173	0.00500	"	0.0333	ND	52.0	30-120				
Chrysene	0.0189	0.00500	"	0.0333	ND	56.7	30-120				
Dibenz (a,h) anthracene	0.0155	0.00500	"	0.0333	ND	46.5	30-120				
Fluoranthene	0.0220	0.00500	"	0.0333	ND	66.0	30-120				
Fluorene	0.0222	0.00500	"	0.0333	ND	66.6	30-120				
Indeno (1,2,3-cd) pyrene	0.0158	0.00500	"	0.0333	ND	47.3	30-120				
Pyrene	0.0190	0.00500	"	0.0333	ND	56.8	35-142				
1-Methylnaphthalene	0.0193	0.00500	"	0.0333	ND	58.0	15-130				
2-Methylnaphthalene	0.0206	0.00500	"	0.0333	ND	61.9	15-130				
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0174</i>		<i>"</i>	<i>0.0333</i>		<i>52.1</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0222</i>		<i>"</i>	<i>0.0333</i>		<i>66.5</i>	<i>40-150</i>				

Matrix Spike Dup (BFJ0786-MSD1)		Source: 2210442-01			Prepared & Analyzed: 10/28/22						
Acenaphthene	0.0224	0.00500	mg/kg	0.0333	ND	67.2	31-137	0.244	30		
Anthracene	0.0231	0.00500	"	0.0333	ND	69.4	30-120	3.89	30		
Benzo (a) anthracene	0.0208	0.00500	"	0.0333	ND	62.3	30-120	10.5	30		
Benzo (a) pyrene	0.0191	0.00500	"	0.0333	ND	57.4	30-120	11.8	30		
Benzo (b) fluoranthene	0.0187	0.00500	"	0.0333	ND	56.0	30-120	10.5	30		
Benzo (k) fluoranthene	0.0192	0.00500	"	0.0333	ND	57.6	30-120	10.2	30		
Chrysene	0.0208	0.00500	"	0.0333	ND	62.4	30-120	9.53	30		
Dibenz (a,h) anthracene	0.0173	0.00500	"	0.0333	ND	52.0	30-120	11.1	30		
Fluoranthene	0.0226	0.00500	"	0.0333	ND	67.9	30-120	2.84	30		
Fluorene	0.0224	0.00500	"	0.0333	ND	67.2	30-120	0.767	30		
Indeno (1,2,3-cd) pyrene	0.0177	0.00500	"	0.0333	ND	53.2	30-120	11.7	30		
Pyrene	0.0201	0.00500	"	0.0333	ND	60.4	35-142	5.99	30		
1-Methylnaphthalene	0.0206	0.00500	"	0.0333	ND	61.8	15-130	6.37	50		
2-Methylnaphthalene	0.0229	0.00500	"	0.0333	ND	68.7	15-130	10.4	50		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0188</i>		<i>"</i>	<i>0.0333</i>		<i>56.3</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0230</i>		<i>"</i>	<i>0.0333</i>		<i>68.9</i>	<i>40-150</i>				

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

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

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

Batch BFJ0712 - EPA 3050B

Blank (BFJ0712-BLK1)

Prepared: 10/26/22 Analyzed: 10/27/22

Boron ND 0.0100 mg/L

LCS (BFJ0712-BS1)

Prepared: 10/26/22 Analyzed: 10/27/22

Boron 4.64 0.0100 mg/L 5.00 92.8 80-120

Duplicate (BFJ0712-DUP1)

Source: 2210449-14

Prepared: 10/26/22 Analyzed: 10/27/22

Boron 0.433 0.0100 mg/L 0.471 8.39 20

Matrix Spike (BFJ0712-MS1)

Source: 2210449-14

Prepared: 10/26/22 Analyzed: 10/27/22

Boron 4.44 0.0100 mg/L 5.00 0.471 79.3 75-125

Matrix Spike Dup (BFJ0712-MSD1)

Source: 2210449-14

Prepared: 10/26/22 Analyzed: 10/27/22

Boron 4.90 0.0100 mg/L 5.00 0.471 88.6 75-125 9.96 25

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

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

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

Batch BFJ0779 - General Preparation

Blank (BFJ0779-BLK1)

Prepared: 10/27/22 Analyzed: 10/28/22

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

LCS (BFJ0779-BS1)

Prepared: 10/27/22 Analyzed: 10/28/22

Calcium	5.79	0.0500	mg/L wet	5.00		116	70-130			
Magnesium	5.56	0.0500	"	5.00		111	70-130			
Sodium	5.29	0.0500	"	5.00		106	70-130			

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
 Project Manager: Sam Vogt

Reported:
 11/03/22 09:29

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

Summit Scientific

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

Batch BFJ0716 - General Preparation

Duplicate (BFJ0716-DUP1)

Source: 2210452-01

Prepared & Analyzed: 10/26/22

% Solids	89.8		%		88.9			1.10	20	
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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344
Project Manager: Sam Vogt

Reported:
11/03/22 09:29

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

Summit Scientific

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

Batch BFJ0817 - General Preparation

Blank (BFJ0817-BLK1)

Prepared & Analyzed: 10/28/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BFJ0817-BS1)

Prepared & Analyzed: 10/28/22

Specific Conductance (EC) 0.149 0.0100 mmhos/cm 0.150 99.1 95-105

Duplicate (BFJ0817-DUP1)

Source: 2210441-02

Prepared & Analyzed: 10/28/22

Specific Conductance (EC) 0.358 0.0100 mmhos/cm 0.381 6.26 20

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Civitas Resources
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Project: Madison 23-9 WH

Project Number: AFE# 22344
 Project Manager: Sam Vogt

Reported:
 11/03/22 09:29

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

Summit Scientific

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

Batch BFJ0816 - General Preparation

LCS (BFJ0816-BS1)

Prepared & Analyzed: 10/28/22

pH 9.18 pH Units 9.18 100 95-105

Duplicate (BFJ0816-DUP1)

Source: 2210441-02

Prepared & Analyzed: 10/28/22

pH 8.22 pH Units 8.23 0.122 20

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Madison 23-9 WH

Project Number: AFE# 22344

Project Manager: Sam Vogt

Reported:
11/03/22 09:29

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