

April 21, 2023

Mr. Jacob Evans
Environmental Compliance Advisor
Civitas Resources
650 Southgate Drive
Windsor, Colorado 80550

**Re: Miller 4-17J Pit Site Assessment
Soil Analytic Summary Report
SWSW Sec 17, T2S, R67W
COGCC Facility ID 103315
Remediation Project # 25332**

Dear Mr. Evans,

Site Background

On behalf Civitas Resources (Civitas), Quandary Consultants, LLC (Quandary) has prepared a soil analytic summary report for the site assessment at the Miller 14-17J location (Site). A topographic site location map is presented as Figure 1. An aerial site location map is presented as Figure 2. A soil and hydrology map are presented as Figure 3.

While collecting samples for root zone soil suitability analysis on March 8, 2023 for the Miller 14-17 pit (COGCC Location ID 103309), suspected hydrocarbon impacts were encountered by Quandary. Quandary mobilized again on March 14, 2023, and March 21, 2023 to conduct a site assessment for Colorado Oil and Gas Conservation Commission (COGCC) Table 915-1 Constituents of Concerns (COCs). Five source area boreholes (SB01-SB05) and five background boreholes (BG01-BG05) were advanced. All ten boreholes were dry to refusal at approximately 20 to 22 feet (ft.) below ground surface (bgs). After review of the soil delineation samples, it was determined that the impacts were associated with the Miller 4-17J (COGCC location ID 103315), located approximately 60 ft. northeast of Miller 4-17. All samples had been labeled as the Miller 14-17 at the time.

Soil Analytical Results

Source area soil samples were collected and analyzed for the full Table 915-1 at depths of 4-5, 9-10, 14-15, and 19-20 ft. bgs in SB01-SB05. Background soil samples were analyzed for Soil Suitability for Reclamation (Soil Suitability) and Metals in Soils (Metals) COCs at corresponding depths in BG01-BG05. The highest background value for Soil Suitability and the average background x 1.25 for Metals were utilized to compare to source area Soil Suitability and Metals at corresponding depths.

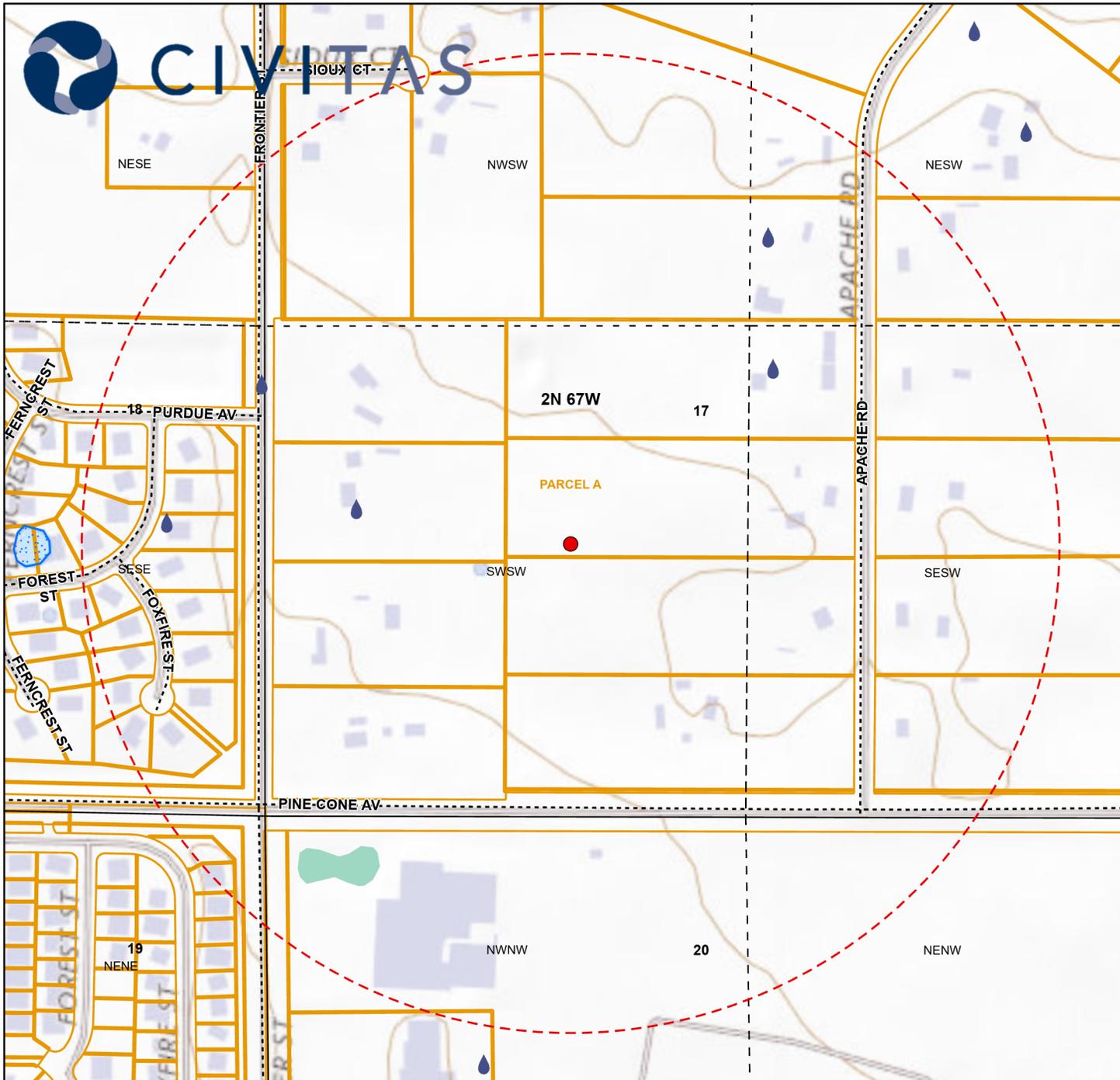
Analytical results indicate Volatile Organic Compound (VOC) and/or Polycyclic Aromatic Hydrocarbon (PAH) impacts above COGCC allowable levels in SB01, SB02, and SB03. Analytical results indicate Soil Suitability impacts above COGCC allowable levels in SB01-SB05. Finally, analytical results indicate Metals impacts above COGCC allowable levels in SB04 and SB05. Source area and background results are depicted in Figures 4-7B and presented in Tables 1-5. The borehole logs and soil laboratory analytical reports are also attached.

Conclusion

Soil analytical results indicate impacts above COGCC allowable levels in all five source area boreholes associated with Miller 14-17-J. Please contact Mike Dinkel with Quandary if you have any questions or require additional information on this Soil Analytical Summary Report. He can be reached at mdinkel@quandaryconsultants.com or 785-691-7788.



CIVITAS



Legend

- MILLER 14-17 Pit (103309)
- 0.25-Mile Buffer
- 💧 CDWR Water Well Application
- NWI Freshwater Pond
- NHD Waterbody
- Road
- PLSS Township & Range
- PLSS Section
- PLSS Qtr-Qtr
- Parcel Boundary
- County Boundary

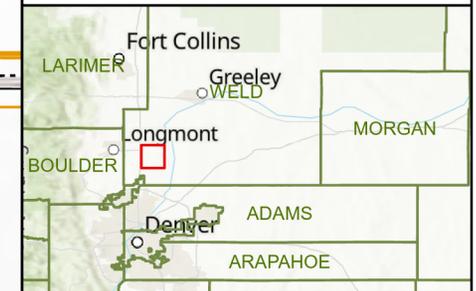
0 125 250 375 500 Feet



CIVITAS RESOURCES

**Figure 1. MILLER 14-17 & MILLER 4-17J
Topographic Site Location Map**

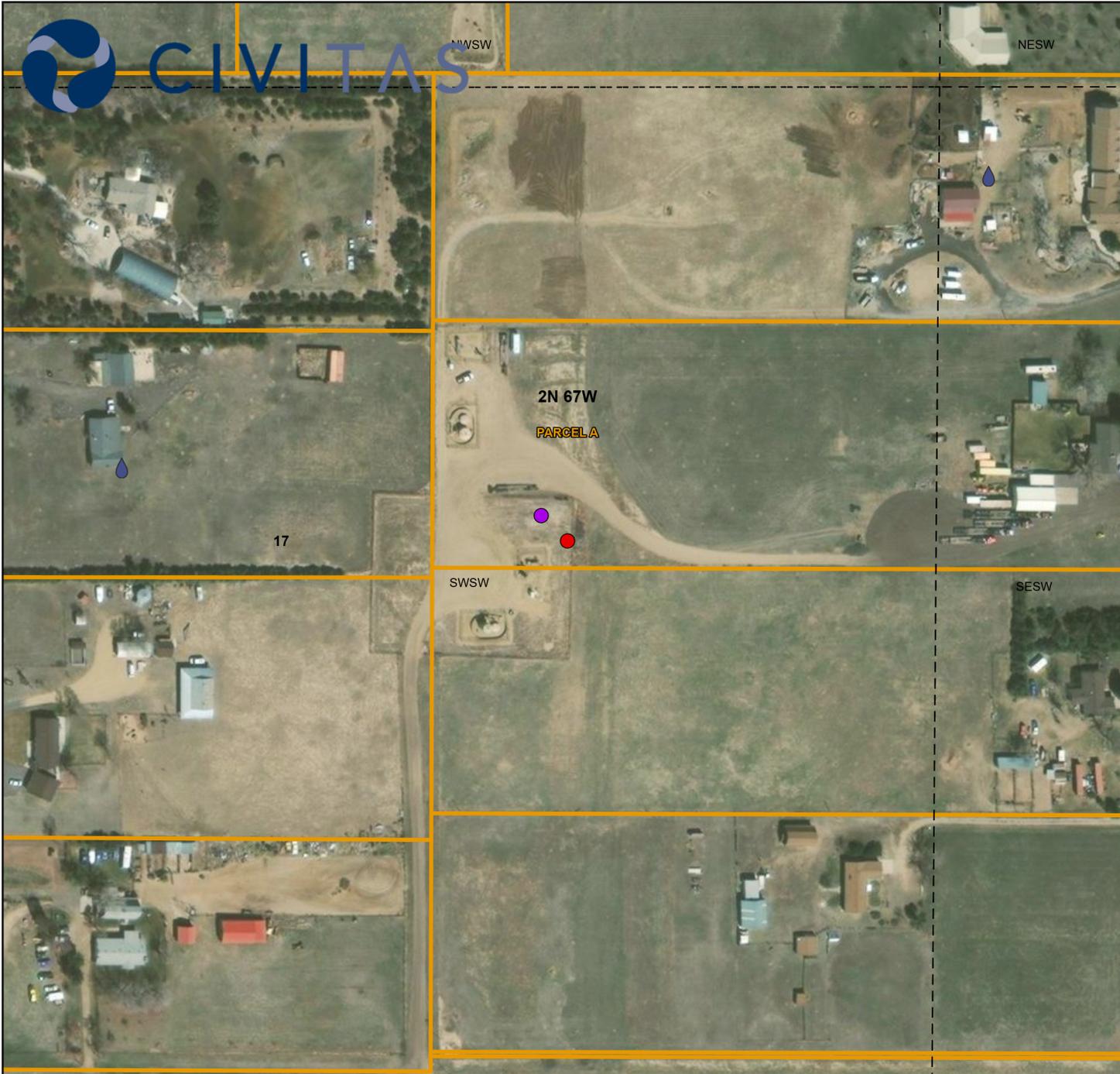
Facility ID: 103309 (40.133080, -104.921035)
 Facility ID: 103315 (40.133170, -104.921157)
 SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
 Weld County, CO



Author: CSJ Date: 04/20/2023

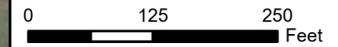
Data Sources: Esri, CGIAR, USGS, Maxar, CDWR, NWI, NHD

PARCEL A: PICKERING, CODY & RANA - 9131 Apache Rd, Longmont, CO 80504-5440 (Account: R5407486, Parcel: 131117005054).



Legend

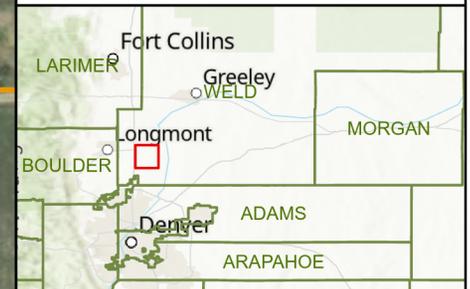
- MILLER 14-17 Pit (103309)
- MILLER 4-17J Pit (103315)
- 💧 CDWR Water Well Application
- PLSS Township & Range
- PLSS Section
- PLSS Qtr-Qtr
- Parcel Boundary
- County Boundary



CIVITAS RESOURCES

Figure 2. MILLER 14-17 & MILLER 4-17J Aerial Site Location Map

Facility ID: 103309 (40.133080, -104.921035)
Facility ID: 103315 (40.133170, -104.921157)
SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
Weld County, CO



Author: CSJ Date: 04/20/2023

PARCELA: PICKERING, CODY & RANA - 9131 Apache Rd, Longmont, CO 80504-5440 (Account: R5407486, Parcel: 131117005054).

Data Sources: Esri, CGIAR, USGS, Maxar, CDWR, NWI, NHD

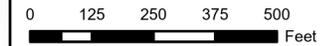
Figures



CIVITAS

Legend

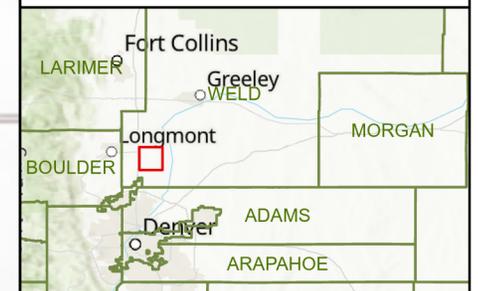
- MILLER 14-17 Pit (103309)
 - 0.25-Mile Buffer
 - 💧 CDWR Water Well Application
 - NWI Freshwater Pond
- NRCS Soils
(Map Unit Symbol - Map Unit Name)*
- 44 - Olney loamy sand, 1-3% slopes
 - 72 - Vona loamy sand, 0-3% slopes
 - 73 - Vona loamy sand, 3-5% slopes



CIVITAS RESOURCES

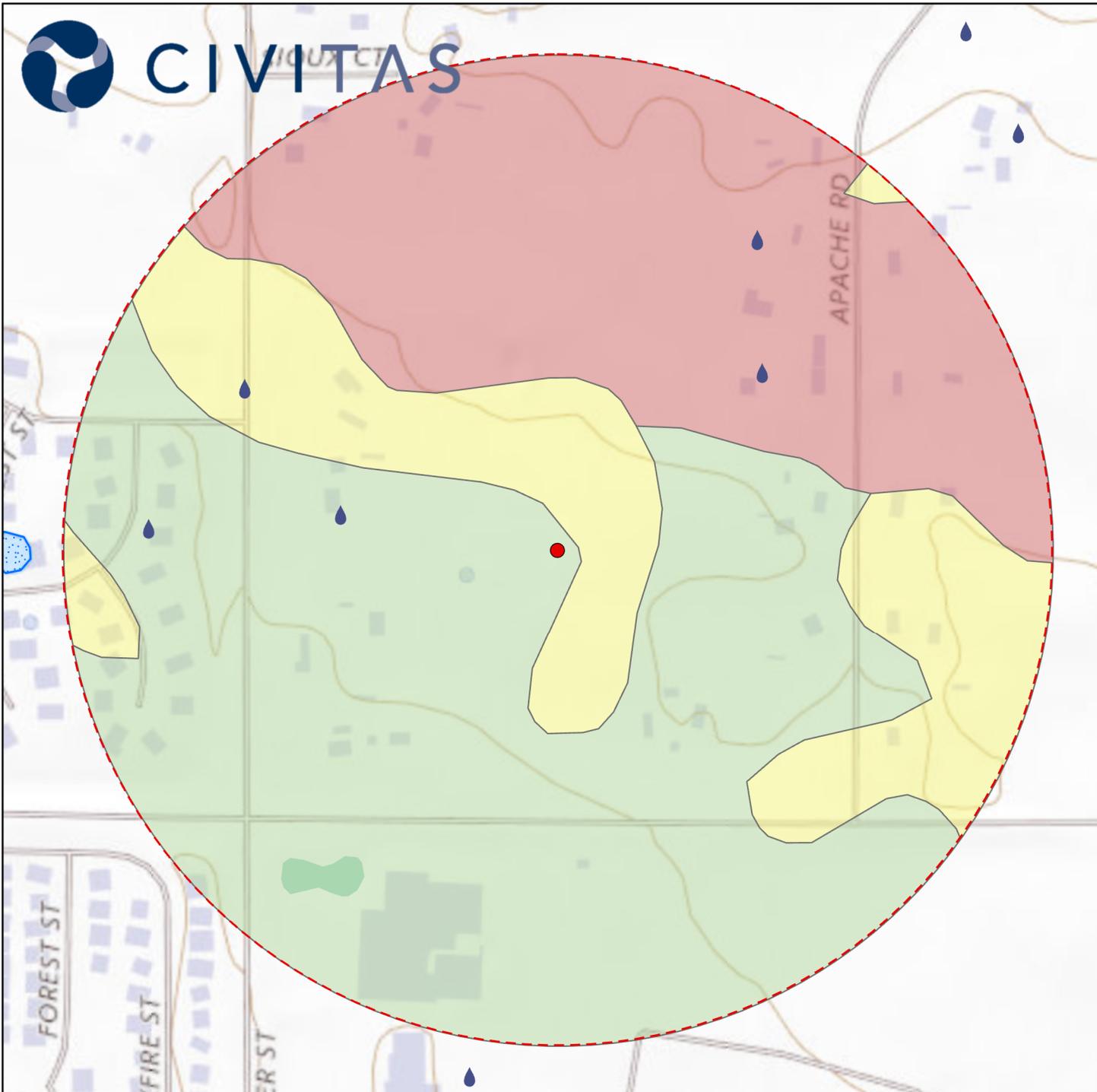
**Figure 3. MILLER 14-17 & MILLER 4-17J
Soil & Hydrology Map**

Facility ID: 103309 (40.133080, -104.921035)
 Facility ID: 103315 (40.133170, -104.921157)
 SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
 Weld County, CO



Author: CSJ Date: 04/20/2023

Data Sources: Esri, CGIAR, USGS, Maxar, CDWR, NWI, NHD, NRCS





SB02@4-5'	SB02@9-10'	SB02@14-15'	SB02@19-20'
03/14/23	03/14/23	03/14/23	03/14/23
G = <0.50	G = <0.50	G = <0.50	G = 2.9
D = <50	D = <50	D = <50	D = <50
R = <50	R = <50	R = <50	R = <50
B = <0.002	B = <0.002	B = <0.002	B = <0.002
T = <0.005	T = <0.005	T = <0.005	T = <0.005
E = <0.005	E = <0.005	E = <0.005	E = <0.005
X = <0.01	X = <0.01	X = <0.01	X = <0.01
1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005	1,2,4-Tmb = 0.13
1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005	1,3,5-Tmb = 0.086
N = <0.0038	N = <0.0038	N = <0.0038	N = <0.0038

SB01@4-5'	SB01@9-10'	SB01@14-15'	SB01@19-20'
03/14/23	03/14/23	03/14/23	03/14/23
G = 2000	G = 280	G = 280	G = 21
D = 180	D = 2900	D = 1500	D = 210
R = <50	R = 450	R = 240	R = 74
B = 1.2	B = 0.14	B = 0.37	B = 0.017
T = 0.011	T = <0.005	T = <0.005	T = <0.005
E = 5.8	E = 0.29	E = 1.2	E = 0.09
X = 20	X = 15	X = 1.9	X = 0.57
1,2,4-Tmb = 33	1,2,4-Tmb = 7.1	1,2,4-Tmb = 6.7	1,2,4-Tmb = 0.53
1,3,5-Tmb = 27	1,3,5-Tmb = 0.56	1,3,5-Tmb = 2.5	1,3,5-Tmb = 0.2
N = 0.5	N = 0.59	N = 1.8	N = 0.14

SB03@4-5'	SB03@9-10'	SB03@14-15'	SB03@19-20'
03/14/23	03/14/23	03/14/23	03/14/23
G = <0.50	G = <0.50	G = <0.50	G = <0.50
D = <50	D = <50	D = <50	D = <50
R = <50	R = <50	R = <50	R = <50
B = <0.002	B = <0.002	B = <0.002	B = <0.002
T = <0.005	T = <0.005	T = <0.005	T = <0.005
E = <0.005	E = <0.005	E = <0.005	E = <0.005
X = <0.01	X = <0.01	X = <0.01	X = <0.01
1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005
1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005
N = <0.0038	N = <0.0038	N = <0.0038	N = <0.0038

SB05@4-5'	SB05@9-10'	SB05@14-15'	SB05@19-20'
03/14/23	03/14/23	03/14/23	03/14/23
G = <0.50	G = <0.50	G = <0.50	G = <0.50
D = <50	D = <50	D = <50	D = <50
R = <50	R = <50	R = <50	R = <50
B = <0.002	B = <0.002	B = <0.002	B = <0.002
T = <0.005	T = <0.005	T = <0.005	T = <0.005
E = <0.005	E = <0.005	E = <0.005	E = <0.005
X = <0.01	X = <0.01	X = <0.01	X = <0.01
1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005
1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005
N = <0.0038	N = <0.0038	N = <0.0038	N = <0.0038

SB04@4-5'	SB04@9-10'	SB04@14-15'	SB04@19-20'
03/14/23	03/14/23	03/14/23	03/14/23
G = <0.50	G = <0.50	G = 0.95	G = 13
D = <50	D = <50	D = <50	D = <50
R = <50	R = <50	R = <50	R = <50
B = <0.002	B = <0.002	B = <0.002	B = 0.05
T = <0.005	T = <0.005	T = <0.005	T = <0.005
E = <0.005	E = <0.005	E = 0.0078	E = 0.17
X = <0.01	X = <0.01	X = 0.087	X = 3.1
1,2,4-Tmb = <0.005	1,2,4-Tmb = <0.005	1,2,4-Tmb = 0.025	1,2,4-Tmb = 0.31
1,3,5-Tmb = <0.005	1,3,5-Tmb = <0.005	1,3,5-Tmb = 0.021	1,3,5-Tmb = 0.23
N = <0.0038	N = <0.0038	N = <0.0038	N = 0.017

Legend

- MILLER 14-17 Pit (103309)
- MILLER 4-17J Pit (103315)
- Soil Sample Location

Parameters

Sample Location @ Depth (ft.)
Sample Date
G = TPH-GRO (mg/kg)
D = TPH-DRO (mg/kg)
R = TPH-RRO (mg/kg)
B = Benzene (mg/kg)
T = Toluene (mg/kg)
E = Ethylbenzene (mg/kg)
X = Total Xylenes (mg/kg)
1,2,4-Tmb = 1,2,4-Trimethylbenzene (mg/kg)
1,3,5-Tmb = 1,3,5-Trimethylbenzene (mg/kg)
N = Naphthalene (mg/kg)

mg/kg = Milligrams per Kilogram

- TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics
- TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics
- TPH-RRO = Total Petroleum Hydrocarbons - Residual Range Organics

Note: Values presented in **bold** exceed COGCC Table 915-1 regulatory limits for that compound. Values presented in **blue** exceed Protection of Groundwater Soil Screening level concentrations. Values presented in **red** exceed Residential Soil Screening levels.



CIVITAS RESOURCES

Figure 4. MILLER 14-17 & MILLER 4-17J Soil Suitability Map - Volatile Organic Compounds

Facility ID: 103309 (40.133080, -104.921035)
 Facility ID: 103315 (40.133170, -104.921157)
 SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
 Weld County, CO



Author: CSJ Date: 04/20/2023

Data Sources: Esri, CGIAR, USGS, Maxar



Legend

- MILLER 14-17 Pit (103309)
- MILLER 4-17J Pit (103315)
- Soil Sample Location

Parameters

Sample Location @ Depth (ft.)
Sample Date
Ac = Acenaphthene (mg/kg)
An = Anthracene (mg/kg)
Baa = Benz[a]anthracene (mg/kg)
Bbf = Benzo[b]fluoranthene (mg/kg)
Bkf = Benzo[k]fluoranthene (mg/kg)
Bap = Benzo[a]pyrene (mg/kg)
C = Chrysene (mg/kg)
Di = Dibenzo[a,h]anthracene (mg/kg)
Fa = Fluoranthene (mg/kg)
F = Fluorene (mg/kg)
I = Indeno[1,2,3-cd]pyrene (mg/kg)
1-M = 1-Methylnaphthalene (mg/kg)
2-M = 2-Methylnaphthalene (mg/kg)
P = Pyrene (mg/kg)

mg/kg = Milligrams per Kilogram

Note: Values presented in **bold** exceed COGCC Table 915-1 regulatory limits for that compound. Values presented in **blue** exceed Protection of Groundwater Soil Screening level concentrations. Values presented in **red** exceed Residential Soil Screening levels.



CIVITAS RESOURCES

Figure 5. MILLER 14-17 & MILLER 4-17J Soil Suitability Map - PAH

Facility ID: 103309 (40.133080, -104.921035)
 Facility ID: 103315 (40.133170, -104.921157)
 SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
 Weld County, CO



Author: CSJ Date: 04/20/2023

Data Sources: Esri, CGIAR, USGS, Maxar

SB01@4-5' 03/14/23	SB01@9-10' 03/14/23	SB01@14-15' 03/14/23	SB01@19-20' 03/14/23
Ac = <0.005	Ac = <0.05	Ac = <0.05	Ac = <0.005
An = <0.05	An = <0.05	An = <0.05	An = <0.005
Baa = <0.005	Baa = <0.05	Baa = 0.093	Baa = <0.005
Bbf = 0.0186	Bbf = <0.05	Bbf = <0.05	Bbf = <0.005
Bkf = <0.005	Bkf = <0.05	Bkf = <0.05	Bkf = <0.005
Bap = 0.0297	Bap = <0.05	Bap = <0.05	Bap = <0.005
C = 0.145	C = 0.287	C = 0.062	C = 0.00538
Di = <0.005	Di = <0.05	Di = <0.05	Di = <0.005
Fa = 0.043	Fa = 0.147	Fa = 0.0651	Fa = <0.005
F = 0.304	F = 1.85	F = 2.06	F = 0.0584
I = <0.005	I = <0.05	I = <0.05	I = <0.005
1-M = 1	1-M = 12.5	1-M = 9.96	1-M = 0.323
2-M = 1.41	2-M = 20.7	2-M = 17.1	2-M = 0.465
P = 0.036	P = 0.222	P = 0.113	P = <0.005

SB02@4-5' 03/14/23	SB02@9-10' 03/14/23	SB02@14-15' 03/14/23	SB02@19-20' 03/14/23
Ac = <0.005	Ac = <0.005	Ac = <0.005	Ac = <0.005
An = <0.005	An = <0.005	An = <0.005	An = <0.005
Baa = <0.005	Baa = <0.005	Baa = <0.005	Baa = <0.005
Bbf = <0.005	Bbf = <0.005	Bbf = <0.005	Bbf = <0.005
Bkf = <0.005	Bkf = <0.005	Bkf = <0.005	Bkf = <0.005
Bap = <0.005	Bap = <0.005	Bap = <0.005	Bap = <0.005
C = <0.005	C = <0.005	C = <0.005	C = <0.005
Di = <0.005	Di = <0.005	Di = <0.005	Di = <0.005
Fa = <0.005	Fa = <0.005	Fa = <0.005	Fa = <0.005
F = <0.005	F = <0.005	F = <0.005	F = <0.005
I = <0.005	I = <0.005	I = <0.005	I = <0.005
1-M = <0.005	1-M = <0.005	1-M = <0.005	1-M = <0.005
2-M = <0.005	2-M = <0.005	2-M = <0.005	2-M = <0.005
P = <0.005	P = <0.005	P = <0.005	P = <0.005

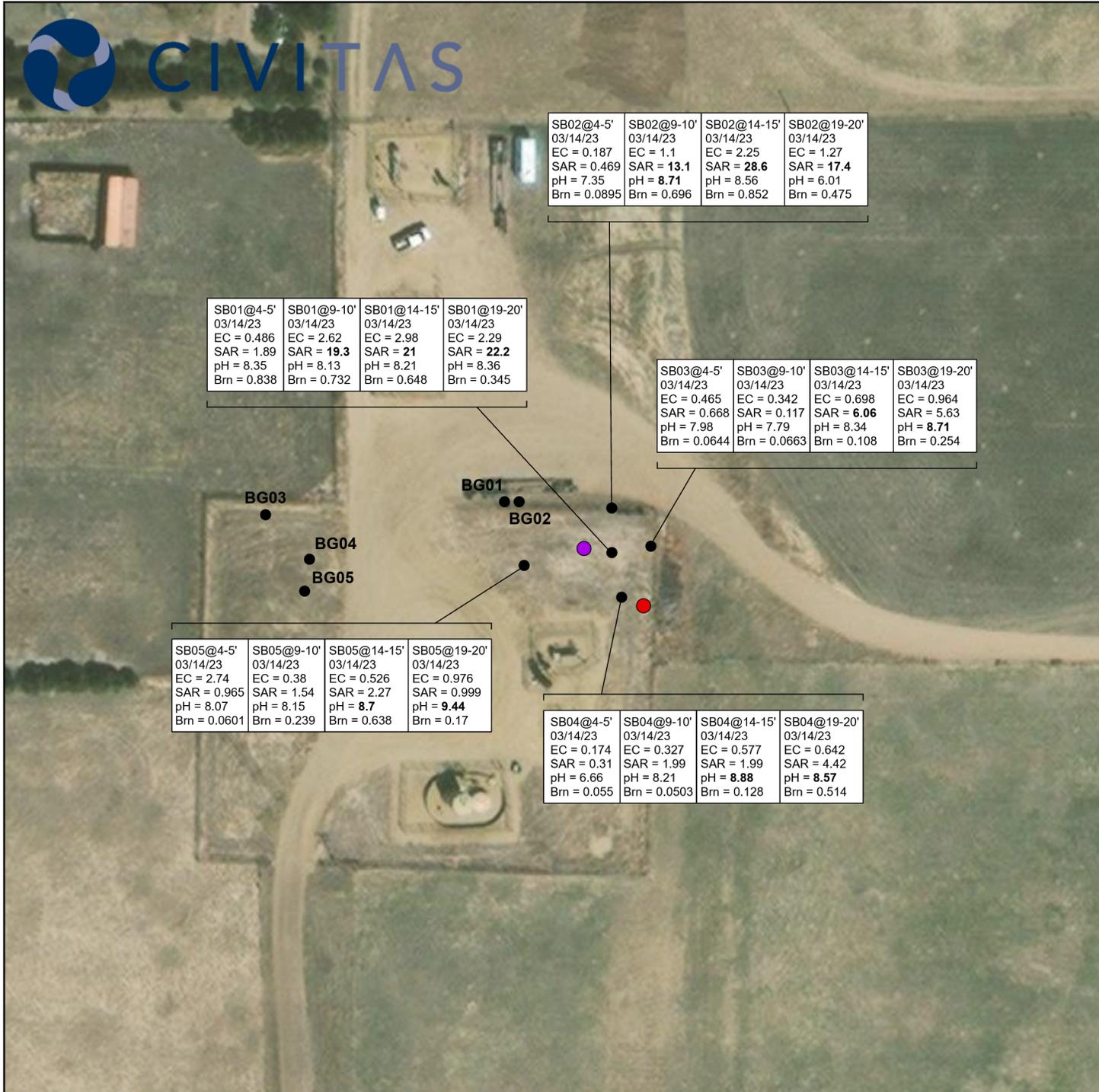
SB03@4-5' 03/14/23	SB03@9-10' 03/14/23	SB03@14-15' 03/14/23	SB03@19-20' 03/14/23
Ac = <0.005	Ac = <0.005	Ac = <0.005	Ac = <0.005
An = <0.005	An = <0.005	An = <0.005	An = <0.005
Baa = <0.005	Baa = <0.005	Baa = <0.005	Baa = <0.005
Bbf = <0.005	Bbf = <0.005	Bbf = <0.005	Bbf = <0.005
Bkf = <0.005	Bkf = <0.005	Bkf = <0.005	Bkf = <0.005
Bap = <0.005	Bap = <0.005	Bap = <0.005	Bap = <0.005
C = <0.005	C = <0.005	C = <0.005	C = <0.005
Di = <0.005	Di = <0.005	Di = <0.005	Di = <0.005
Fa = <0.005	Fa = <0.005	Fa = <0.005	Fa = <0.005
F = <0.005	F = <0.005	F = <0.005	F = <0.005
I = <0.005	I = <0.005	I = <0.005	I = <0.005
1-M = <0.005	1-M = <0.005	1-M = <0.005	1-M = <0.005
2-M = <0.005	2-M = <0.005	2-M = <0.005	2-M = <0.005
P = <0.005	P = <0.005	P = <0.005	P = <0.005

SB05@4-5' 03/14/23	SB05@9-10' 03/14/23	SB05@14-15' 03/14/23	SB05@19-20' 03/14/23
Ac = <0.005	Ac = <0.005	Ac = <0.005	Ac = <0.005
An = <0.005	An = <0.005	An = <0.005	An = <0.005
Baa = <0.005	Baa = <0.005	Baa = <0.005	Baa = <0.005
Bbf = <0.005	Bbf = <0.005	Bbf = <0.005	Bbf = <0.005
Bkf = <0.005	Bkf = <0.005	Bkf = <0.005	Bkf = <0.005
Bap = <0.005	Bap = <0.005	Bap = <0.005	Bap = <0.005
C = <0.005	C = <0.005	C = <0.005	C = <0.005
Di = <0.005	Di = <0.005	Di = <0.005	Di = <0.005
Fa = <0.005	Fa = <0.005	Fa = <0.005	Fa = <0.005
F = <0.005	F = <0.005	F = <0.005	F = <0.005
I = <0.005	I = <0.005	I = <0.005	I = <0.005
1-M = 0.0133	1-M = <0.005	1-M = <0.005	1-M = <0.005
2-M = 0.0187	2-M = 0.0123	2-M = <0.005	2-M = <0.005
P = <0.005	P = <0.005	P = <0.005	P = <0.005

SB04@4-5' 03/14/23	SB04@9-10' 03/14/23	SB04@14-15' 03/14/23	SB04@19-20' 03/14/23
Ac = <0.005	Ac = <0.005	Ac = <0.005	Ac = <0.005
An = <0.005	An = <0.005	An = <0.005	An = <0.005
Baa = <0.005	Baa = <0.005	Baa = <0.005	Baa = <0.005
Bbf = <0.005	Bbf = <0.005	Bbf = <0.005	Bbf = <0.005
Bkf = <0.005	Bkf = <0.005	Bkf = <0.005	Bkf = <0.005
Bap = <0.005	Bap = <0.005	Bap = <0.005	Bap = <0.005
C = <0.005	C = <0.005	C = <0.005	C = <0.005
Di = <0.005	Di = <0.005	Di = <0.005	Di = <0.005
Fa = <0.005	Fa = <0.005	Fa = <0.005	Fa = <0.005
F = <0.005	F = <0.005	F = <0.005	F = <0.005
I = <0.005	I = <0.005	I = <0.005	I = <0.005
1-M = <0.005	1-M = <0.005	1-M = 0.0162	1-M = 0.0407
2-M = <0.005	2-M = <0.005	2-M = 0.0309	2-M = 0.0793
P = <0.005	P = <0.005	P = <0.005	P = <0.005

BG03
BG04
BG05

BG01
BG02



Legend

- MILLER 14-17 Pit (103309)
- MILLER 4-17J Pit (103315)
- Soil Sample Location

Parameters

Sample Location @ Depth (ft.)
 Sample Date
 EC = Electrical Conductivity (mmhos/cm)
 SAR = Sodium Absorption Ratio
 pH = pH (pH Units)
 Brn = Boron (mg/L)

mmhos/cm = Millimhos per Centimeter
 mg/L = Milligrams per Liter

ND = Non-Detect

Note: Values presented in **bold** exceed COGCC Table 915-1 regulatory limits for that compound.



CIVITAS RESOURCES

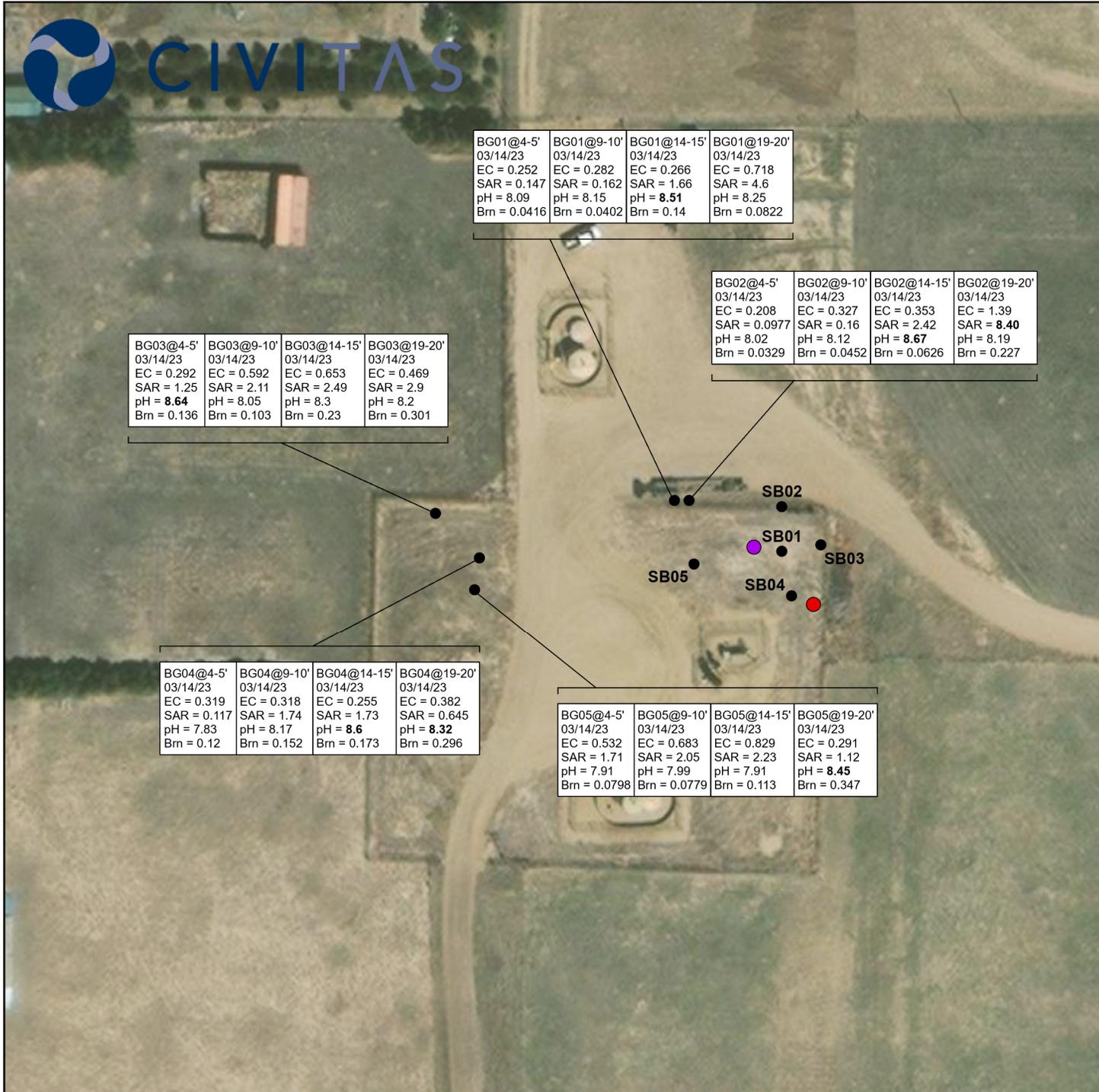
Figure 6A. MILLER 14-17 & MILLER 4-17J Soil Suitability Map - Soil Reclamation

Facility ID: 103309 (40.133080, -104.921035)
 Facility ID: 103315 (40.133170, -104.921157)
 SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
 Weld County, CO



Author: CSJ Date: 04/20/2023

Data Sources: Esri, CGIAR, USGS, Maxar



BG01@4-5' 03/14/23 EC = 0.252 SAR = 0.147 pH = 8.09 Brn = 0.0416	BG01@9-10' 03/14/23 EC = 0.282 SAR = 0.162 pH = 8.15 Brn = 0.0402	BG01@14-15' 03/14/23 EC = 0.266 SAR = 1.66 pH = 8.51 Brn = 0.14	BG01@19-20' 03/14/23 EC = 0.718 SAR = 4.6 pH = 8.25 Brn = 0.0822
---	--	---	---

BG02@4-5' 03/14/23 EC = 0.208 SAR = 0.0977 pH = 8.02 Brn = 0.0329	BG02@9-10' 03/14/23 EC = 0.327 SAR = 0.16 pH = 8.12 Brn = 0.0452	BG02@14-15' 03/14/23 EC = 0.353 SAR = 2.42 pH = 8.67 Brn = 0.0626	BG02@19-20' 03/14/23 EC = 1.39 SAR = 8.40 pH = 8.19 Brn = 0.227
--	---	---	---

BG03@4-5' 03/14/23 EC = 0.292 SAR = 1.25 pH = 8.64 Brn = 0.136	BG03@9-10' 03/14/23 EC = 0.592 SAR = 2.11 pH = 8.05 Brn = 0.103	BG03@14-15' 03/14/23 EC = 0.653 SAR = 2.49 pH = 8.3 Brn = 0.23	BG03@19-20' 03/14/23 EC = 0.469 SAR = 2.9 pH = 8.2 Brn = 0.301
--	--	---	---

BG04@4-5' 03/14/23 EC = 0.319 SAR = 0.117 pH = 7.83 Brn = 0.12	BG04@9-10' 03/14/23 EC = 0.318 SAR = 1.74 pH = 8.17 Brn = 0.152	BG04@14-15' 03/14/23 EC = 0.255 SAR = 1.73 pH = 8.6 Brn = 0.173	BG04@19-20' 03/14/23 EC = 0.382 SAR = 0.645 pH = 8.32 Brn = 0.296
---	--	---	---

BG05@4-5' 03/14/23 EC = 0.532 SAR = 1.71 pH = 7.91 Brn = 0.0798	BG05@9-10' 03/14/23 EC = 0.683 SAR = 2.05 pH = 7.99 Brn = 0.0779	BG05@14-15' 03/14/23 EC = 0.829 SAR = 2.23 pH = 7.91 Brn = 0.113	BG05@19-20' 03/14/23 EC = 0.291 SAR = 1.12 pH = 8.45 Brn = 0.347
--	---	---	--

Legend

- MILLER 14-17 Pit (103309)
- MILLER 4-17J Pit (103315)
- Soil Sample Location

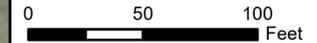
Parameters

Sample Location @ Depth (ft.)
 Sample Date
 EC = Electrical Conductivity (mmhos/cm)
 SAR = Sodium Absorption Ratio
 pH = pH (pH Units)
 Brn = Boron (mg/L)

mmhos/cm = Millimhos per Centimeter
 mg/L = Milligrams per Liter

ND = Non-Detect

Note: Values presented in **bold** exceed COGCC Table 915-1 regulatory limits for that compound.



CIVITAS RESOURCES

Figure 6B. MILLER 14-17 & MILLER 4-17J Soil Suitability Map - Soil Reclamation

Facility ID: 103309 (40.133080, -104.921035)
 Facility ID: 103315 (40.133170, -104.921157)
 SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
 Weld County, CO



Author: CSJ Date: 04/20/2023

Data Sources: Esri, CGIAR, USGS, Maxar



SB01@4-5' 03/14/23	SB01@9-10' 03/14/23	SB01@14-15' 03/14/23	SB01@19-20' 03/14/23
As = 0.948	As = 4.74	As = 2.91	As = 6.38
Ba = 50	Ba = 154	Ba = 130	Ba = 43.1
Cd = 0.101	Cd = 0.0922	Cd = 0.13	Cd = 0.0792
Cr = <0.3	Cr = <0.3	Cr = <0.3	Cr = <0.3
Cu = 6.33	Cu = 11.5	Cu = 6.87	Cu = 14.4
Pb = 6.04	Pb = 8.34	Pb = 5.82	Pb = 9.68
Ni = 5.08	Ni = 14.2	Ni = 7.93	Ni = 4.62
Se = 0.381	Se = 0.542	Se = 0.385	Se = 0.636
Ag = 0.0246	Ag = 0.0272	Ag = 0.0251	Ag = 0.0329
Zn = 32.7	Zn = 39.6	Zn = 26.8	Zn = 27.4

SB02@4-5' 03/14/23	SB02@9-10' 03/14/23	SB02@14-15' 03/14/23	SB02@19-20' 03/14/23
As = 1.16	As = 5.25	As = 4.35	As = 4.88
Ba = 55.9	Ba = 143	Ba = 137	Ba = 41.4
Cd = 0.75	Cd = 0.209	Cd = 0.189	Cd = 0.107
Cr = <0.3	Cr = <0.3	Cr = <0.3	Cr = <0.3
Cu = 5.97	Cu = 7	Cu = 4.4	Cu = 6.43
Pb = 4.67	Pb = 9.49	Pb = 7	Pb = 6.68
Ni = 6.59	Ni = 8.5	Ni = 5.84	Ni = 2.06
Se = 0.264	Se = <0.175	Se = <0.175	Se = <0.175
Ag = 0.0332	Ag = 0.0284	Ag = 0.0123	Ag = 0.0274
Zn = 23.5	Zn = 22.8	Zn = 17.9	Zn = 19.6

SB03@4-5' 03/14/23	SB03@9-10' 03/14/23	SB03@14-15' 03/14/23	SB03@19-20' 03/14/23
As = 1.95	As = 3.46	As = 4.63	As = 4.62
Ba = 70.7	Ba = 95.1	Ba = 76.8	Ba = 166
Cd = 0.157	Cd = 0.208	Cd = 0.165	Cd = 0.558
Cr = <0.3	Cr = <0.3	Cr = <0.3	Cr = <0.3
Cu = 4.17	Cu = 6.18	Cu = 5.62	Cu = 8.41
Pb = 6.12	Pb = 8.32	Pb = 8.79	Pb = 10
Ni = 4.57	Ni = 7.63	Ni = 6.79	Ni = 9.79
Se = <0.175	Se = <0.175	Se = <0.175	Se = <0.175
Ag = 0.0267	Ag = 0.0302	Ag = 0.0135	Ag = 0.0343
Zn = 17.7	Zn = 21.6	Zn = 21.9	Zn = 23.2

SB05@4-5' 03/14/23	SB05@9-10' 03/14/23	SB05@14-15' 03/14/23	SB05@19-20' 03/14/23
As = 1.94	As = 4.69	As = 5.23	As = 4.95
Ba = 73.4	Ba = 383	Ba = 259	Ba = 78.4
Cd = 0.0759	Cd = 0.149	Cd = 0.129	Cd = 0.119
Cr = <0.3	Cr = <0.3	Cr = <0.3	Cr = <0.3
Cu = 6.68	Cu = 9.16	Cu = 11.7	Cu = 7.23
Pb = 4.92	Pb = 7.57	Pb = 9.49	Pb = 10.6
Ni = 8	Ni = 10.2	Ni = 10.7	Ni = 3.39
Se = 0.299	Se = 0.423	Se = 0.579	Se = <0.175
Ag = 0.0235	Ag = 0.0201	Ag = 0.0356	Ag = 0.0331
Zn = 25.6	Zn = 36.2	Zn = 33.4	Zn = 18.5

SB04@4-5' 03/14/23	SB04@9-10' 03/14/23	SB04@14-15' 03/14/23	SB04@19-20' 03/14/23
As = 2.07	As = 4.83	As = 3.51	As = 4.03
Ba = 59.8	Ba = 412	Ba = 157	Ba = 264
Cd = 0.116	Cd = 0.205	Cd = 0.101	Cd = 0.306
Cr = <0.3	Cr = <0.3	Cr = <0.3	Cr = <0.3
Cu = 3.94	Cu = 5.91	Cu = 6.33	Cu = 12.3
Pb = 5.65	Pb = 8.27	Pb = 7.48	Pb = 10.2
Ni = 4.27	Ni = 6.88	Ni = 8.14	Ni = 19.5
Se = <0.175	Se = <0.175	Se = <0.175	Se = 0.591
Ag = 0.0264	Ag = 0.0169	Ag = 0.0106	Ag = 0.0892
Zn = 15.4	Zn = 20.8	Zn = 19	Zn = 46

BG03

BG01

BG02

BG04

BG05

Legend

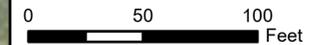
- MILLER 14-17 Pit (103309)
- MILLER 4-17J Pit (103315)
- Soil Sample Location

Parameters

Sample Location @ Depth (ft.)
 Sample Date
 As = Arsenic (mg/kg)
 Ba = Barium (mg/kg)
 Cd = Cadmium (mg/kg)
 Cr = Chromium (VI) (mg/kg)
 Cu = Copper (mg/kg)
 Pb = Lead (mg/kg)
 Ni = Nickel (mg/kg)
 Se = Selenium (mg/kg)
 Ag = Silver (mg/kg)
 Zn = Zinc (mg/kg)

mg/kg = Milligrams per Kilogram

Note: Values presented in **bold** exceed COGCC Table 915-1 regulatory limits for that compound. Values presented in **blue** exceed Protection of Groundwater Soil Screening level concentrations. Values presented in **red** exceed Residential Soil Screening levels.



CIVITAS RESOURCES

Figure 7A. MILLER 14-17 & MILLER 4-17J Soil Suitability Map - Metals

Facility ID: 103309 (40.133080, -104.921035)
 Facility ID: 103315 (40.133170, -104.921157)
 SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
 Weld County, CO



Author: CSJ Date: 04/20/2023

Data Sources: Esri, CGIAR, USGS, Maxar



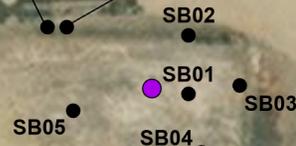
BG01@4-5' 03/14/23 As = 4.5 Ba = 83.6 Cd = 0.182 Cr = <0.3 Cu = 5.21 Pb = 6.85 Ni = 5.6 Se = <0.175 Ag = 0.0191 Zn = 18.3	BG01@9-10' 03/14/23 As = 3.91 Ba = 96.6 Cd = 0.199 Cr = <0.3 Cu = 5.46 Pb = 7.63 Ni = 5.72 Se = <0.175 Ag = 0.0144 Zn = 19.8	BG01@14-15' 03/14/23 As = 5.11 Ba = 46.5 Cd = 0.113 Cr = <0.3 Cu = 5.71 Pb = 6.4 Ni = 5.27 Se = <0.175 Ag = 0.00888 Zn = 16.8	BG01@19-20' 03/14/23 As = 7.69 Ba = 31.8 Cd = 0.169 Cr = <0.3 Cu = 7.32 Pb = 21.3 Ni = 2.74 Se = <0.175 Ag = 0.0374 Zn = 18.1
---	--	---	---

BG03@4-5' 03/14/23 As = 1.61 Ba = 65.1 Cd = 0.0812 Cr = <0.3 Cu = 3.65 Pb = 4.23 Ni = 4.31 Se = <0.175 Ag = 0.0239 Zn = 13.3	BG03@9-10' 03/14/23 As = 5.01 Ba = 124 Cd = 0.257 Cr = <0.3 Cu = 6.28 Pb = 8.61 Ni = 7.36 Se = <0.175 Ag = 0.0203 Zn = 22.6	BG03@14-15' 03/14/23 As = 3.29 Ba = 70.7 Cd = 0.145 Cr = <0.3 Cu = 5.38 Pb = 6.17 Ni = 5.36 Se = <0.175 Ag = 0.0108 Zn = 18.2	BG03@19-20' 03/14/23 As = 3.64 Ba = 49.5 Cd = 0.147 Cr = <0.3 Cu = 7.99 Pb = 13.6 Ni = 3.01 Se = <0.175 Ag = 0.03 Zn = 20.1
--	---	---	---

BG02@4-5' 03/14/23 As = 2.06 Ba = 80.3 Cd = 0.119 Cr = <0.3 Cu = 4.58 Pb = 4.96 Ni = 5.02 Se = <0.175 Ag = 0.0248 Zn = 16	BG02@9-10' 03/14/23 As = 5.26 Ba = 116 Cd = 0.313 Cr = <0.3 Cu = 6.06 Pb = 8.56 Ni = 7.54 Se = <0.175 Ag = 0.0184 Zn = 21.9	BG02@14-15' 03/14/23 As = 3.25 Ba = 65 Cd = 0.237 Cr = <0.3 Cu = 4.1 Pb = 5.98 Ni = 5.4 Se = <0.175 Ag = 0.0131 Zn = 16.1	BG02@19-20' 03/14/23 As = 7.18 Ba = 38.6 Cd = 0.117 Cr = <0.3 Cu = 8.12 Pb = 9.92 Ni = 2.22 Se = <0.175 Ag = 0.0305 Zn = 21.4
---	---	---	---

BG04@4-5' 03/14/23 As = 2.56 Ba = 71.5 Cd = 0.135 Cr = <0.3 Cu = 4.63 Pb = 11.9 Ni = 5.17 Se = <0.175 Ag = 0.0256 Zn = 28.4	BG04@9-10' 03/14/23 As = 3.11 Ba = 33 Cd = 0.116 Cr = <0.3 Cu = 4.32 Pb = <0.215 Ni = 4.42 Se = <0.175 Ag = 0.00816 Zn = 16.6	BG04@14-15' 03/14/23 As = 2.72 Ba = 37.8 Cd = 0.0748 Cr = <0.3 Cu = 4.99 Pb = 6.91 Ni = 7.53 Se = <0.175 Ag = 0.0131 Zn = 18.7	BG04@19-20' 03/14/23 As = 29.5 Ba = 44 Cd = 0.352 Cr = <0.3 Cu = 18.2 Pb = <0.235 Ni = 4.15 Se = <0.175 Ag = 0.0612 Zn = 23.7
---	---	--	---

BG05@4-5' 03/14/23 As = 2.7 Ba = 79.2 Cd = 0.178 Cr = <0.3 Cu = 5.3 Pb = 8.25 Ni = 5.56 Se = <0.175 Ag = 0.0325 Zn = 19.8	BG05@9-10' 03/14/23 As = 4.16 Ba = 429 Cd = 0.207 Cr = <0.3 Cu = 5.27 Pb = 7.52 Ni = 6.22 Se = <0.175 Ag = 0.0137 Zn = 20.9	BG05@14-15' 03/14/23 As = 4.85 Ba = 348 Cd = 0.245 Cr = <0.3 Cu = 5.65 Pb = 8.41 Ni = 6.59 Se = <0.175 Ag = 0.015 Zn = 22.4	BG05@19-20' 03/14/23 As = 0.727 Ba = 33.6 Cd = 0.175 Cr = <0.3 Cu = 8.03 Pb = 19 Ni = 1.4 Se = <0.175 Ag = 0.0662 Zn = 2.48
---	---	---	---



Legend

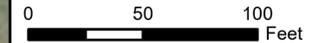
- MILLER 14-17 Pit (103309)
- MILLER 4-17J Pit (103315)
- Soil Sample Location

Parameters

Sample Location @ Depth (ft.)
Sample Date
As = Arsenic (mg/kg)
Ba = Barium (mg/kg)
Cd = Cadmium (mg/kg)
Cr = Chromium (VI) (mg/kg)
Cu = Copper (mg/kg)
Pb = Lead (mg/kg)
Ni = Nickel (mg/kg)
Se = Selenium (mg/kg)
Ag = Silver (mg/kg)
Zn = Zinc (mg/kg)

mg/kg = Milligrams per Kilogram

Note: Values presented in **bold** exceed COGCC Table 915-1 regulatory limits for that compound. Values presented in **blue** exceed Protection of Groundwater Soil Screening level concentrations. Values presented in **red** exceed Residential Soil Screening levels.



CIVITAS RESOURCES

Figure 7B. MILLER 14-17 & MILLER 4-17J Soil Suitability Map - Metals

Facility ID: 103309 (40.133080, -104.921035)
 Facility ID: 103315 (40.133170, -104.921157)
 SWSW Qtr-Qtr, Sec 17, T2N, R67W, 6PM
 Weld County, CO



Author: CSJ Date: 04/20/2023

Data Sources: Esri, CGIAR, USGS, Maxar

Tables

Table 1 - Miller 4-17J, 14-17 VOC Results

Sample ID	Date Sampled	Depth	TPH-GRO	TPH-DRO	TPH-ORO	benzene	Toluene	ethyl-benzene	xylenes (total)	1,2,4-trimethyl-benzene	1,3,5-trimethyl-benzene	Naphthalene
Table 915-1 - Residential Soil Screening Levels						1.2 mg/kg	490 mg/kg	5.8 mg/kg	58 mg/kg	30 mg/kg	27 mg/kg	2.4 mg/kg
Table 915-1 - Protection of Groundwater Soil Screening Levels		ft. (bgs)	500 mg/kg			0.0026 mg/kg	0.69 mg/kg	0.78 mg/kg	9.9 mg/kg	0.0081 mg/kg	0.0087 mg/kg	0.0038 mg/kg
SB01@9-10'	3/14/23	4-5	2000	180	<50	1.2	0.011	5.8	20	33	27	0.5
SB01@9-10'	3/14/23	9-10	280	2900	450	0.14	<0.0050	0.29	15	7.1	0.56	0.59
SB01@14-15'	3/14/23	14-15	280	1500	240	0.37	<0.0050	1.2	1.9	6.7	2.5	1.8
SB01@19-20'	3/14/23	19-20	21	210	74	0.017	<0.0050	0.09	0.57	0.53	0.2	0.14
SB02@4-5'	3/14/23	4-5	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB02@9-10'	3/14/23	9-10	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB02@14-15'	3/14/23	14-15	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB02@19-20'	3/14/23	19-20	2.9	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	0.13	0.086	<0.0038
SB03@4-5'	3/14/23	4-5	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB03@9-10'	3/14/23	9-10	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB03@14-15'	3/14/23	14-15	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB03@19-20'	3/14/23	19-20	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB04@4-5'	3/14/23	4-5	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB04@9-10'	3/14/23	9-10	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB04@14-15'	3/14/23	14-15	0.95	<50	<50	<0.0020	<0.0050	0.0078	0.087	0.025	0.021	<0.0038
SB04@19-20'	3/14/23	19-20	13	<50	<50	0.05	<0.0050	0.17	3.1	0.31	0.23	0.017
SB05@4-5'	3/14/23	4-5	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB05@9-10'	3/14/23	9-10	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB05@14-15'	3/14/23	14-15	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038
SB05@19-20'	3/14/23	19-20	<0.50	<50	<50	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038

Notes:

mg/kg-milligrams per kilogram

TPH-GRO = total petroleum hydrocarbons-gasoline range organics

TPH-DRO = total petroleum hydrocarbons-diesel range organics

TPH-RRO = total petroleum hydrocarbons-residual range organics

Bold indicates a Table 915-1 exceedance

Table 2 - Miller 4-17J, 14-17 PAH results

Sample ID	Date Sampled	Depth	ace-naphthene	anthracene	benz (a)-anthracene	benzo (b)-fluoranthene	benzo (k)-fluoranthene	benzo-(a)pyrene	chrysene	dibenzo-(a,h)-anthracene	fluoranthene	fluorene	indeno-(1,2,3-cd)-pyrene	1-methyl-naphthalene	2-methyl-naphthalene	pyrene
Table 915-1 - Residential Soil Screening Levels			360 mg/kg	360 mg/kg	1800 mg/kg	1.1 mg/kg	11 mg/kg	0.11 mg/kg	110 mg/kg	110 mg/kg	240 mg/kg	240 mg/kg	240 mg/kg	18 mg/kg	24 mg/kg	180 mg/kg
Table 915-1 - Protection of Groundwater Soil Screening Levels			0.55 mg/kg	5.8 mg/kg	0.011 mg/kg	0.3 mg/kg	1.1 mg/kg	0.24 mg/kg	9 mg/kg	9 mg/kg	8.9 mg/kg	0.54 mg/kg	0.98 mg/kg	0.006 mg/kg	0.019 mg/kg	1.3 mg/kg
		ft. (bgs)														
SB01@9-10'	3/14/23	4-5	<0.005	<0.05	<0.005	0.0186	<0.005	0.0297	0.145	<0.005	0.043	0.304	<0.005	1.0	1.41	0.036
SB01@9-10'	3/14/23	9-10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.287	<0.05	0.147	1.85	<0.05	12.5	20.7	0.222
SB01@14-15'	3/14/23	14-15	<0.05	<0.05	0.093	<0.05	<0.05	<0.05	0.062	<0.05	0.0651	2.06	<0.05	9.96	17.1	0.113
SB01@19-20'	3/14/23	19-20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00538	<0.005	<0.005	0.0584	<0.005	0.323	0.465	<0.005
SB02@4-5'	3/14/23	4-5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB02@9-10'	3/14/23	9-10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB02@14-15'	3/14/23	14-15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB02@19-20'	3/14/23	19-20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB03@4-5'	3/14/23	4-5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB03@9-10'	3/14/23	9-10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB03@14-15'	3/14/23	14-15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB03@19-20'	3/14/23	19-20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB04@4-5'	3/14/23	4-5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB04@9-10'	3/14/23	9-10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB04@14-15'	3/14/23	14-15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0162	0.0309	<0.005
SB04@19-20'	3/14/23	19-20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0407	0.0793	<0.005
SB05@4-5'	3/14/23	4-5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0133	0.0187	<0.005
SB05@9-10'	3/14/23	9-10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0123	<0.005
SB05@14-15'	3/14/23	14-15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB05@19-20'	3/14/23	19-20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Notes:

mg/kg-milligrams per kilogram

Bold indicates a Table 915-1 exceedance

Blue shading indicates above Protection of Groundwater Soil Screening levels

Yellow shading indicates above Residential Soil Screening levels

Table 3 - Miller 4-17J, 14-17 Soil Suitability Results						
Sample ID	Date Sampled	Depth	EC	SAR	pH	boron
Table 915-1 Standards		ft. (bgs)	<4 mmhos/cm	6	6–8.3	2.0 mg/L
SB01@4-5'	3/14/23	4-5	0.486	1.89	8.35	0.838
SB01@9-10'	3/14/23	9-10	2.62	19.3	8.13	0.732
SB01@14-15'	3/14/23	14-15	2.98	21.0	8.21	0.648
SB01@19-20'	3/14/23	19-20	2.29	22.2	8.36	0.345
SB02@4-5'	3/14/23	4-5	0.187	0.469	7.35	0.0895
SB02@9-10'	3/14/23	9-10	1.1	13.1	8.71	0.696
SB02@14-15'	3/14/23	14-15	2.25	28.6	8.56	0.852
SB02@19-20'	3/14/23	19-20	1.27	17.4	6.01	0.475
SB03@4-5'	3/21/23	4-5	0.465	0.668	7.98	0.0644
SB03@9-10'	3/21/23	9-10	0.342	0.117	7.79	0.0663
SB03@14-15'	3/21/23	14-15	0.698	6.06	8.34	0.108
SB03@19-20'	3/21/23	19-20	0.964	5.63	8.71	0.254
SB04@4-5'	3/21/23	4-5	0.174	0.31	6.66	0.055
SB04@9-10'	3/21/23	9-10	0.327	1.99	8.21	0.0503
SB04@14-15'	3/21/23	14-15	0.577	1.99	8.88	0.128
SB04@19-20'	3/21/23	19-20	0.642	4.42	8.57	0.514
SB05@4-5'	3/21/23	4-5	2.74	0.965	8.07	0.0601
SB05@9-10'	3/21/23	9-10	0.38	1.54	8.15	0.239
SB05@14-15'	3/21/23	14-15	0.526	2.27	8.70	0.638
SB05@19-20'	3/21/23	19-20	0.976	0.999	9.44	0.17

Notes:

mg/L = milligrams per liter

mg/kg = milligrams per kilogram

mmhos/cm-millimhos per centimeter

EC = Electrical Conductivity

SAR = Sodium absorption ratio

Bold indicates a Table 915-1 exceedance and above background

Table 3 - Miller 4-17J, 14-17 Soil Suitability Results continued						
Sample ID	Date Sampled	Depth	EC	SAR	pH	boron
Table 915-1 Standards		ft. (bgs)	<4 mmhos/cm	6	6–8.3	2.0 mg/L
BG01@4-5'	3/14/23	4-5	0.252	0.147	8.09	0.0416
BG01@9-10'	3/14/23	9-10	0.282	0.162	8.15	0.0402
BG01@14-15'	3/14/23	14-15	0.266	1.66	8.51	0.14
BG01@19-20'	3/14/23	19-20	0.718	4.6	8.25	0.0822
BG02@4-5'	3/14/23	4-5	0.208	0.0977	8.02	0.0329
BG02@9-10'	3/14/23	9-10	0.327	0.16	8.12	0.0452
BG02@14-15'	3/14/23	14-15	0.353	2.42	8.67	0.0626
BG02@19-20'	3/14/23	19-20	1.39	8.40	8.19	0.227
BG03@4.5'	3/21/23	4.5	0.292	1.25	8.64	0.136
BG03@9-10'	3/21/23	9-10	0.592	2.11	8.05	0.103
BG03@14-15'	3/21/23	14-15	0.653	2.49	8.3	0.23
BG03@19-20'	3/21/23	19-20	0.469	2.9	8.2	0.301
BG04@4.5'	3/21/23	4.5	0.319	0.117	7.83	0.12
BG04@9-10'	3/21/23	9-10	0.318	1.74	8.17	0.152
BG04@14-15'	3/21/23	14-15	0.255	1.73	8.6	0.173
BG04@19-20'	3/21/23	19-20	0.382	0.645	8.32	0.296
BG05@4.5'	3/21/23	4.5	0.532	1.71	7.91	0.0798
BG05@9-10'	3/21/23	9-10	0.683	2.05	7.99	0.0779
BG05@14-15'	3/21/23	14-15	0.829	2.23	7.91	0.113
BG05@19-20'	3/21/23	19-20	0.291	1.12	8.45	0.347

Notes:

mg/L = milligrams per liter

mg/kg = milligrams per kilogram

mmhos/cm-millimhos per centimeter

EC = Electrical Conductivity

SAR = Sodium absorption ratio

Bold indicates background above Table 915-1

Table 4 -Miller 4-17J, 14-17 Metals Results

Sample ID	Date Sampled	Date Sampled	arsenic	barium	cadmium	chromium (VI)	copper	lead	nickel	selenium	silver	zinc
Table 915-1 Standards Residential Soil Screening Levels			0.68 mg/kg	15000 mg/kg	71 mg/kg	0.3 mg/kg	3100 mg/kg	400 mg/kg	1500 mg/kg	390 mg/kg	390 mg/kg	23000 mg/kg
Table 915-1 Protection of Groundwater Soil Screening Levels			0.29 mg/kg	82 mg/kg	0.38 mg/kg	0.00067 mg/kg	46 mg/kg	14 mg/kg	26 mg/kg	0.26 mg/kg	0.8 mg/kg	23000 mg/kg
		ft. (bgs)										
SB01@4-5'	3/14/23	4-5	0.948	50	0.101	<0.3	6.33	6.04	5.08	0.381	0.0246	32.7
SB01@9-10'	3/14/23	9-10	4.74	154	0.0922	<0.3	11.5	8.34	14.2	0.542	0.0272	39.6
SB01@14-15'	3/14/23	14-15	2.91	130	0.13	<0.3	6.87	5.82	7.93	0.385	0.0251	26.8
SB01@19-20'	3/14/23	19-20	6.38	43.1	0.0792	<0.3	14.4	9.68	4.62	0.636	0.0329	27.4
SB02@4-5'	3/14/23	4-5	1.16	55.9	0.075	<0.3	5.97	4.67	6.59	0.264	0.0332	23.5
SB02@9-10'	3/14/23	9-10	5.25	143	0.209	<0.3	7.0	9.49	8.5	<0.175	0.0284	22.8
SB02@14-15'	3/14/23	14-15	4.35	137	0.189	<0.3	4.4	7.0	5.84	<0.175	0.0123	17.9
SB02@19-20'	3/14/23	19-20	4.88	41.4	0.107	<0.3	6.43	6.68	2.06	<0.175	0.0274	19.6
SB03@4-5'	3/14/23	4-5	1.95	70.7	0.157	<0.3	4.17	6.12	4.57	<0.175	0.0267	17.1
SB03@9-10'	3/14/23	9-10	3.46	95.1	0.208	<0.3	6.18	8.32	7.63	<0.175	0.0302	21.6
SB03@14-15'	3/14/23	14-15	4.63	76.8	0.165	<0.3	5.62	8.79	6.79	<0.175	0.0135	21.9
SB03@19-20'	3/14/23	19-20	4.62	166	0.558	<0.3	8.41	10	9.79	<0.175	0.0343	23.2
SB04@4-5'	3/14/23	4-5	2.07	59.8	0.116	<0.3	3.94	5.65	4.27	<0.175	0.0264	15.4
SB04@9-10'	3/14/23	9-10	4.83	412	0.205	<0.3	5.91	8.27	6.88	<0.175	0.0169	20.8
SB04@14-15'	3/14/23	14-15	3.51	157	0.101	<0.3	6.33	7.48	8.14	<0.175	0.0106	19.0
SB04@19-20'	3/14/23	19-20	4.03	264	0.306	<0.3	12.3	10.2	19.5	0.591	0.0892	46.0
SB05@4-5'	3/14/23	4-5	1.94	73.4	0.0759	<0.3	6.68	4.92	8	0.299	0.0235	25.6
SB05@9-10'	3/14/23	9-10	4.69	383	0.149	<0.3	9.16	7.57	10.2	0.423	0.0201	36.2
SB05@14-15'	3/14/23	14-15	5.23	259	0.129	<0.3	11.7	9.49	10.7	0.579	0.0356	33.4
SB05@19-20'	3/14/23	19-20	4.95	78.4	0.119	<0.3	7.23	10.6	3.39	<0.175	0.0331	18.5

Notes:

mg/kg-milligrams per kilogram

Bold indicates a Table 915-1 exceedance

Blue shading indicates above Protection of Groundwater Soil Screening level and above background

Yellow shading indicates above Residential Soil Screening levels and above background

Table 4 -Miller 4-17J, 14-17 Metals Results continued

Sample ID	Date Sampled	Date Sampled	arsenic	barium	cadmium	chromium (VI)	copper	lead	nickel	selenium	silver	zinc
Table 915-1 Standards Residential Soil Screening Levels			0.68 mg/kg	15000 mg/kg	71 mg/kg	0.3 mg/kg	3100 mg/kg	400 mg/kg	1500 mg/kg	390 mg/kg	390 mg/kg	23000 mg/kg
Table 915-1 Protection of Groundwater Soil Screening Levels			0.29 mg/kg	82 mg/kg	0.38 mg/kg	0.00067 mg/kg	46 mg/kg	14 mg/kg	26 mg/kg	0.26 mg/kg	0.8 mg/kg	370 mg/kg
		ft. (bgs)										
BG01@4-5'	3/14/23	4-5	4.5	83.6	0.182	<0.3	5.21	6.85	5.60	<0.175	0.0191	18.3
BG01@9-10'	3/14/23	9-10	3.91	96.6	0.199	<0.3	5.46	7.63	5.72	<0.175	0.0144	19.8
BG01@14-15'	3/14/23	14-15	5.11	46.5	0.113	<0.3	5.71	6.4	5.27	<0.175	0.00888	16.8
BG01@19-20'	3/14/23	19-20	7.69	31.8	0.169	<0.3	7.32	21.3	2.74	<0.175	0.0374	18.1
BG02@4-5'	3/14/23	4-5	2.06	80.3	0.119	<0.3	4.58	4.96	5.02	<0.175	0.0248	16.0
BG02@9-10'	3/14/23	9-10	5.26	116	0.313	<0.3	6.06	8.56	7.54	<0.175	0.0184	21.9
BG02@14-15'	3/14/23	14-15	3.25	65	0.237	<0.3	4.1	5.98	5.40	<0.175	0.0131	16.1
BG02@19-20'	3/14/23	19-20	7.18	38.6	0.117	<0.3	8.12	9.92	2.22	<0.175	0.0305	21.4
BG03@4.5'	3/21/23	4-5	1.61	65.1	0.0812	<0.3	3.65	4.23	4.31	<0.175	0.0239	13.3
BG03@9-10'	3/21/23	9-10	5.01	124	0.257	<0.3	6.28	8.61	7.36	<0.175	0.0203	22.6
BG03@14-15'	3/21/23	14-15	3.29	70.7	0.145	<0.3	5.38	6.17	5.36	<0.175	0.0108	18.2
BG03@19-20'	3/21/23	19-20	3.64	49.5	0.147	<0.3	7.99	13.6	3.01	<0.175	0.03	20.1
BG04@4.5'	3/21/23	4-5	2.56	71.5	0.135	<0.3	4.63	11.9	5.17	<0.175	0.0256	28.4
BG04@9-10'	3/21/23	9-10	3.11	33	0.116	<0.3	4.32	<0.215	4.42	<0.175	0.00816	16.6
BG04@14-15'	3/21/23	14-15	2.72	37.8	0.0748	<0.3	4.99	6.91	7.53	<0.175	0.0131	18.7
BG04@19-20'	3/21/23	19-20	29.5	44	0.352	<0.3	18.2	<0.235	4.15	<0.175	0.0612	23.7
BG05@4.5'	3/21/23	4-5	2.7	79.2	0.178	<0.3	5.3	8.25	5.56	<0.175	0.0325	19.8
BG05@9-10'	3/21/23	9-10	4.16	429	0.207	<0.3	5.27	7.52	6.22	<0.175	0.0137	20.9
BG05@14-15'	3/21/23	14-15	4.85	348	0.245	<0.3	5.65	8.41	6.59	<0.175	0.015	22.4
BG05@19-20'	3/21/23	19-20	0.727	33.6	0.175	<0.3	8.03	19.0	1.4	<0.175	0.0662	2.48

Notes:

mg/kg-milligrams per kilogram

Bold indicates background above Table 915-1 Protection of Groundwater Soil Screening Levels

Table 5 - Miller 4-17J, 14-17 Background Comparison Values						
Depth ft. (bgs)	EC	SAR	pH	boron	arsenic	barium
4-5	0.53	1.71	8.64	0.136	3.58	94.93
9-10	0.683	2.11	8.17	0.152	5.36	199.65
14-15	0.829	2.42	8.67	0.23	4.80	142.0
19-20	1.39	8.4	8.41	0.347	12.18	49.38

Notes:

Soil suitability background comparison values are the highest value at that depth.

Arsenic and barium background comparison values are the average concentration at that depth x 1.25.

mg/kg-milligrams per kilogram

EC = Electrical Conductivity

SAR = Sodium absorption ratio

Borelogs



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: SB01		Project: Miller 14-17	
Date: 3/14/23	Logged By: Mike Dinkel	Driller: DrillPro	
Drilling Method: Direct Push	Sampling Method: Single Rod	Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA	Seal: 0-22' BGS	Grout: NA	
Casing Type: NA	Diameter: NA	Length: NA	Depth to Water (ft. bgs): Dry
Screen Type: NA	Slot: NA	Diameter: NA	Length: NA
			Total Depth (ft.): 22

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion		
0-5			Dry				0-4'	SP - Sand, medium, brown			
5-8			Dry	477	Yes	SB01@4-5'	4-8'				
8-12											
12-16								SC - Clayey-sand, brown, orange, and gray			
16-20								CL - Clay, gray and orange, compacted, refusal at 20'			
20-22											

NOTES:



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: SB02		Project: Miller 14-17	
Date: 3/14/23	Logged By: Mike Dinkel	Driller: DrillPro	
Drilling Method: Direct Push	Sampling Method: Single Rod	Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA	Seal: 0-20' BGS	Grout: NA	
Casing Type: NA	Diameter: NA	Length: NA	Depth to Water (ft. bgs): Dry
Screen Type: NA	Slot: NA	Diameter: NA	Length: NA
			Total Depth (ft.): 20

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion		
0-5			Dry		No		0-4'	SP - Sand, medium, brown			
5-8			Dry	1.1	No	SB02@4-5'	4-8'				
8-12											
12-16								SC - Clayey-sand, brown, orange, and gray			
16-20								CL - Clay, gray and orange, compacted, refusal at 20'			
10-15			Dry	13.8	No	SB02@9-10'					
15-19			Dry	5.6	No	SB02@14-15'					
19-20			Dry	29.6	No	SB02@19-20'					

NOTES:



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: SB03		Project: Miller 14-17	
Date: 3/14/23		Logged By: Mike Dinkel	
Drilling Method: Direct Push		Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA		Seal: 0-20' BGS	
Casing Type: NA		Grout: NA	
Diameter: NA		Length: NA	
Screen Type: NA		Depth to Water (ft. bgs): Dry	
Slot: NA		Total Depth (ft.): 20	
Diameter: NA		Length: NA	

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion		
0-5			Dry		No		0-4'	SP - Sand, medium, brown			
5-8			Dry	0.4	No	SB03@4-5'	4-8'				
8-12											
12-16			Dry	0.6	No	SB03@9-10'	8-12'	SC - Clayey-sand, brown, orange, and gray			
16-20			Dry	1.4	No	SB03@14-15'	12-16'	CL - Clay, gray and orange, compacted, refusal at 20'			
20			Dry	1.8	No	SB03@19-20'	16-20'				

NOTES:



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: SB04		Project: Miller 14-17	
Date: 3/14/23	Logged By: Mike Dinkel	Driller: DrillPro	
Drilling Method: Direct Push	Sampling Method: Single Rod	Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA	Seal: 0-20' BGS	Grout: NA	
Casing Type: NA	Diameter: NA	Length: NA	Depth to Water (ft. bgs): Dry
Screen Type: NA	Slot: NA	Diameter: NA	Length: NA
			Total Depth (ft.): 20

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion		
0-5			Dry		No		0-4'	SP - Sand, medium, brown			
5-8			Dry	6.8	Yes	SB04@4-5'	4-8'				
8-12											
12-16								SC - Clayey-sand, brown, orange, and gray			
16-20								CL - Clay, gray and orange, compacted, refusal at 20'			
10-12			Dry	4.7	Yes	SB04@9-10'					
14-15			Dry	877	Yes	SB04@14-15'					
19-20			Dry	345	Yes	SB04@19-20'					

NOTES:



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: SB05		Project: Miller 14-17	
Date: 3/14/23	Logged By: Mike Dinkel	Driller: DrillPro	
Drilling Method: Direct Push	Sampling Method: Single Rod	Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA	Seal: 0-20' BGS	Grout: NA	
Casing Type: NA	Diameter: NA	Length: NA	Depth to Water (ft. bgs): Dry
Screen Type: NA	Slot: NA	Diameter: NA	Length: NA
			Total Depth (ft.): 20

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion			
0-5			Dry		No		0-4'	SP - Sand, medium, brown				
5-8			Dry	2.5	No	SB05@4-5'	4-8'					
8-12												
12-16				Dry	1.5	No	SB05@9-10'	8-12'	SC - Clayey-sand, brown, orange, and gray			
16-20												
15-20			Dry	1.7	No	SB05@14-15'	12-16'	CL - Clay, gray and orange, compacted, refusal at 20'				
20												
			Dry	0.2	No	SB05@19-20'	16-20'					

NOTES: Stepped out approximately 50' to the west after higher PID detections in the original borehole.



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: BG01		Project: Miller 14-17	
Date: 3/14/23		Logged By: Mike Dinkel	
Drilling Method: Direct Push		Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA		Seal: 0-20' BGS	
Casing Type: NA		Grout: NA	
Diameter: NA		Length: NA	
Screen Type: NA		Depth to Water (ft. bgs): Dry	
Slot: NA		Total Depth (ft.): 20	
Diameter: NA		Length: NA	

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion		
0-5			Dry				0-4'	SP - Sand, medium, brown			
5-8			Dry	0	No	BG01@4-5'	4-8'				
8-12			Dry	0	No	BG01@9-10	8-12'				
12-16			Dry	0	No	BG01@14-15'	12-16'	SC- Clayey-sand, brown, orange, and gray			
16-20			Dry	0	No	BG01@19-20'	16-20'	CL - Clay, gray and orange, compacted, refusal at 20'			

NOTES:



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: BG02		Project: Miller 14-17	
Date: 3/14/23	Logged By: Mike Dinkel	Driller: DrillPro	
Drilling Method: Direct Push	Sampling Method: Single Rod	Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA	Seal: 0-20' BGS	Grout: NA	
Casing Type: NA	Diameter: NA	Length: NA	Depth to Water (ft. bgs): Dry
Screen Type: NA	Slot: NA	Diameter: NA	Length: NA
			Total Depth (ft.): 20

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion		
0-5			Dry				0-4'	SP - Sand, medium, brown			
5-8			Dry	0	No	BG02@4-5'	4-8'				
8-12			Dry	0	No	BG02@9-10					
12-16			Dry	0	No	BG02@14-15'	12-16'	SC - Clayey-sand, brown, orange, and gray			
16-20			Dry	0	No	BG02@19-20'	16-20'	CL - Clay, gray and orange, compacted, refusal at 20'			

NOTES:



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: BG03		Project: Miller 14-17	
Date: 3/14/23	Logged By: Mike Dinkel	Driller: DrillPro	
Drilling Method: Direct Push	Sampling Method: Single Rod	Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA	Seal: 0-20' BGS	Grout: NA	
Casing Type: NA	Diameter: NA	Length: NA	Depth to Water (ft. bgs): Dry
Screen Type: NA	Slot: NA	Diameter: NA	Length: NA
			Total Depth (ft.): 20

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion		
0-5			Dry				0-4'	SP - Sand, medium, brown			
5-8			Dry	0	No	BG03@4-5'	4-8'				
8-12			Dry	0	No	BG03@9-10					
12-16			Dry	0	No	BG03@14-15'	12-16'	SC - Clayey-sand, brown, orange, and gray			
16-20			Dry	0	No	BG03@19-20'	16-20'	CL - Clay, gray and orange, compacted, refusal at 20'			

NOTES:



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: BG04		Project: Miller 14-17	
Date: 3/14/23	Logged By: Mike Dinkel	Driller: DrillPro	
Drilling Method: Direct Push	Sampling Method: Single Rod	Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA	Seal: 0-20' BGS	Grout: NA	
Casing Type: NA	Diameter: NA	Length: NA	Depth to Water (ft. bgs): Dry
Screen Type: NA	Slot: NA	Diameter: NA	Length: NA
			Total Depth (ft.): 20

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion		
0-5			Dry				0-4'	SP - Sand, medium, brown			
5-8			Dry	0	No	BG04@4-5'	4-8'				
8-12			Dry	0	No	BG04@9-10'					
12-16			Dry	0	No	BG04@14-15'	12-16'	SC - Clayey-sand, brown, orange, and gray			
16-20			Dry	0	No	BG04@19-20'	16-20'	CL - Clay, gray and orange, compacted, refusal at 20'			

NOTES:



BORING LOG/MONITORING WELL COMPLETION LOG

Boring/Well Number: BG05		Project: Miller 14-17	
Date: 3/14/23		Logged By: Mike Dinkel	
Drilling Method: Direct Push		Field Screening Equipment: Mini Rae 2000 PID	
Gravel Pack: NA		Seal: 0-20' BGS	
Casing Type: NA		Grout: NA	
Diameter: NA		Length: NA	
Screen Type: NA		Depth to Water (ft. bgs): Dry	
Slot: NA		Total Depth (ft.): 20	
Diameter: NA		Length: NA	

Depth (ft. bgs)	Lithology	Water Level	Moisture Content	Vapor (ppm)	Staining (Y/N)	Sample	Sample Run	Lithology/Remarks	Well Completion
0-5			Dry				0-4'	SP - Sand, medium, brown	
5-8			Dry	0	No	BG05@4-5'	4-8'		
8-12			Dry	0	No	BG05@9-10'	8-12'		
12-16			Dry	0	No	BG05@14-15'	12-16'	SC - Clayey-sand, brown, orange, and gray	
16-20			Dry	0	No	BG05@19-20'	16-20'	CL - Clay, gray and orange, compacted, refusal at 20'	

NOTES:

Laboratory Analytical

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

March 21, 2023

Mike Dinkel

Civitas Resources

650 Southgate Drive

Windsor, CO 80550

RE: Miller 14-17

Work Order # 2303333

Enclosed are the results of analyses for samples received by Summit Scientific on 03/14/23 15:37. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Scott Sheely". The signature is written in a cursive style with a large, stylized 'S' at the beginning.

Scott Sheely For Paul Shrewsbury

President



Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
 Project Manager: Mike Dinkel

Reported:
 03/21/23 17:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB01@4-5'	2303333-01	Soil	03/14/23 08:45	03/14/23 15:37
SB01@9-10'	2303333-02	Soil	03/14/23 08:50	03/14/23 15:37
SB01@14-15'	2303333-03	Soil	03/14/23 08:55	03/14/23 15:37
SB01@19-20'	2303333-04	Soil	03/14/23 09:00	03/14/23 15:37
SB02@4-5'	2303333-05	Soil	03/14/23 09:30	03/14/23 15:37
SB02@9-10'	2303333-06	Soil	03/14/23 09:40	03/14/23 15:37
SB02@14-15'	2303333-07	Soil	03/14/23 09:45	03/14/23 15:37
SB02@19-20'	2303333-08	Soil	03/14/23 09:50	03/14/23 15:37
SB03@4-5'	2303333-09	Soil	03/14/23 10:00	03/14/23 15:37
SB03@9-10'	2303333-10	Soil	03/14/23 10:05	03/14/23 15:37
SB03@14-15'	2303333-11	Soil	03/14/23 10:10	03/14/23 15:37
SB03@19-20'	2303333-12	Soil	03/14/23 10:20	03/14/23 15:37
SB04@4-5'	2303333-13	Soil	03/14/23 11:15	03/14/23 15:37
SB04@9-10'	2303333-14	Soil	03/14/23 11:20	03/14/23 15:37
SB04@14-15'	2303333-15	Soil	03/14/23 11:25	03/14/23 15:37
SB04@19-20'	2303333-16	Soil	03/14/23 11:30	03/14/23 15:37
SB05@4-5'	2303333-17	Soil	03/14/23 11:45	03/14/23 15:37
SB05@9-10'	2303333-18	Soil	03/14/23 11:50	03/14/23 15:37
SB05@14-15'	2303333-19	Soil	03/14/23 11:55	03/14/23 15:37
BG01@4-5'	2303333-20	Soil	03/14/23 13:00	03/14/23 15:37
BG01@9-10'	2303333-21	Soil	03/14/23 13:10	03/14/23 15:37
BG01@14-15'	2303333-22	Soil	03/14/23 13:30	03/14/23 15:37
BG01@19-20'	2303333-23	Soil	03/14/23 13:35	03/14/23 15:37
BG02@4-5'	2303333-24	Soil	03/14/23 13:40	03/14/23 15:37
BG02@9-10'	2303333-25	Soil	03/14/23 13:45	03/14/23 15:37
BG02@14-15'	2303333-26	Soil	03/14/23 13:50	03/14/23 15:37
BG02@19-20'	2303333-27	Soil	03/14/23 13:55	03/14/23 15:37

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB05@19'-20'	2303333-28	Soil	03/14/23 00:00	03/14/23 15:37

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

2303333.1

Lab ID	Page 1 of 2
--------	-------------

Client: <u>Civitas</u>	Project Manager: <u>mdinkel@quandaryconsultants.com</u>	Company: <u>Civitas</u>
Address: <u>650 Southgate</u>	E-Mail: <u>rshaw@quandaryconsultants.com</u>	Project Name/Location: <u>Miller 14-17</u>
City/State/Zip: <u>windsor CO</u>		AFE#:
Phone: <u>785-691-7788</u>	Project Name: <u>Miller 1417</u>	PO/Billing Codes:
Sampler Name: <u>Mike Dinkel</u>	Project Number:	Contact: <u>Jacob Evans</u>

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other					
1	SB01 @ 4-5'		0845	2			X				X						
2	SB01 @ 9-10'		0850	↓													
3	SB01 @ 14-15'		0855														
4	SB01 @ 19-20'		0900														
5	SB02 @ 4-5'		0930														
6	SB02 @ 9-10'		0940														
7	SB02 @ 14-15'		0945														
8	SB02 @ 19-20'		0950														
9	SB03 @ 4-5'		1000														
10	SB03 @ 9-10'		1005														
11	SB03 @ 14-15'		1010														
12	SB03 @ 19-20'		1020														
13	SB04 @ 4-5'		1115														
14	SB04 @ 9-10'		1120														
15	SB04 @ 14-15'		1125														

Relinquished by: <u>[Signature]</u> Date/Time: <u>3-14/1530</u>	Received by: <u>[Signature]</u> Date/Time: <u>3/14/23 1537</u>	TAT Business Days	Field DO	Notes: same day for organics -analyzed for all else
Relinquished by:	Received by:	Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by:	Received by:	1 Day <input type="checkbox"/>	Field ORP	
Relinquished by:	Received by:	2 Days <input type="checkbox"/>	Field pH	
Relinquished by:	Received by:	3 Days <input type="checkbox"/>	Field Temp.	
Temperature Upon Receipt: <u>10.3</u>	Corrected Temperature: <u>-</u>	IR gun #: <u>02</u>	HNO3 lot #:	

SUMMIT SCIENTIFIC

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

2303333-2

Lab ID	Page 2 of 2
--------	-------------

Client: CIVITAS	Project Manager: Mike Drake	Company: Civitas
Address: 650 Southgate	E-Mail: mdrake@guardaryconsultants.com	Project Name/Location: Miller 14-17
City/State/Zip: Windsor CO	rshea@guardaryconsultants.com	AFE#:
Phone: 785-691-7388	Project Name: Miller 14-17	PO/Billing Codes:
Sampler Name: Mike Drake	Project Number:	Contact: Jacob Evans

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative					Matrix		Analysis Requested					Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Table 915-1	Table 915-2	Table 915-3	Table 915-4			
1	SB04 @ 19-20'		1130	2			X												
2	SB05 @ 4-5'		1145	2															
3	SB05 @ 9-10'		1150	2															
4	SB05 @ 14-15'		1155	2															
5	B601 @ 4-5'		1200	1															
6	B601 @ 9-10'		1300 ¹³¹⁰	1															
7	B601 @ 14-15'		1320 ¹³³⁰	1															
8	B601 @ 19-20'		1335	1															
9	B602 @ 4-5'		1340	1															
10	B602 @ 9-10'		1345	1															
11	B602 @ 14-15'		1350	1															
12	B602 @ 19-20'		1355	1															
13																			
14																			
15																			

Relinquished by: <i>W. Cole</i>	Date/Time: 3-14/15 ³⁰	Received by: <i>Scott Stedley</i>	Date/Time: 3/14/15 1537	TAT Business Days	Field DO	Notes: same day for organics quickest for all else
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard	Field Turb.	
Temperature Upon Receipt: 10.3	Corrected Temperature: —	IR gun #: 02	HNO3 lot #:			

S₂

S2 Work Order# 2303833

Sample Receipt Checklist

Client: Civitas Client Project ID: Miller 14-17

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

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

Temp (°C) 10.3 Thermometer # 02

	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"/>	<u>On Ice</u>
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Sameday</u>
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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<u>extra sample</u>
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.

[Signature]
Custodian Printed Name

3/14/23 1537
Date/Time



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@4-5'
2303333-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	1.2	0.20		mg/kg	100	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	0.011	0.0050		"	1	"	"	"	"	
Ethylbenzene	5.8	0.50		"	100	"	"	"	"	
Xylenes (total)	20	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	33	0.50		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	27	0.50		"	"	"	"	"	"	
Naphthalene	0.50	0.0038		"	1	"	"	"	"	
Gasoline Range Hydrocarbons	2000	50		"	100	"	"	"	"	

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		145 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		137 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		134 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	180	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		69.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@4-5'
2303333-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/18/23	EPA 8270D SIM	
Anthracene	ND	0.0500		"	10	"	"	03/19/23	"	
Benzo (a) anthracene	ND	0.00500		"	1	"	"	03/18/23	"	
Benzo (a) pyrene	0.0297	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0186	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	0.145	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	0.0430	0.00500		"	"	"	"	"	"	
Fluorene	0.304	0.0500		"	10	"	"	03/19/23	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	1	"	"	03/18/23	"	
Pyrene	0.0360	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	1.00	0.0500		"	10	"	"	03/19/23	"	
2-Methylnaphthalene	1.41	0.0500		"	"	"	"	"	"	

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.9 %		40-150		"	"	03/18/23	"	
Surrogate: Fluoranthene-d10		110 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.838	0.0100		mg/L	1	BGC0418	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@4-5'
2303333-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.948	0.237	0.199	mg/kg dry	1	BGC0417	03/14/23	03/16/23	EPA 6020B	
Barium	50.0	0.473	0.374	"	"	"	"	"	"	
Cadmium	0.101	0.237	0.00852	"	"	"	"	"	"	
Copper	6.33	0.473	0.0247	"	"	"	"	"	"	
Lead	6.04	0.237	0.0650	"	"	"	"	"	"	
Nickel	5.08	0.473	0.0722	"	"	"	"	"	"	
Selenium	0.381	0.260	0.175	"	"	"	"	"	"	
Silver	0.0246	0.0237	0.00316	"	"	"	"	"	"	
Zinc	32.7	0.473	0.315	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 08:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 08:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	44.3	0.0591		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	9.11	0.0591		"	"	"	"	"	"	
Sodium	52.9	0.0591		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 08:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.89	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@4-5'
2303333-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	84.5			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.486	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 08:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.35			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@9-10'
2303333-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.14	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.29	0.0050		"	"	"	"	"	"	
Xylenes (total)	15	0.10		"	10	"	"	"	"	E
1,2,4-Trimethylbenzene	7.1	0.050		"	"	"	"	"	"	E
1,3,5-Trimethylbenzene	0.56	0.0050		"	1	"	"	"	"	
Naphthalene	0.59	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	280	5.0		"	10	"	"	"	"	

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		137 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		134 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		135 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	2900	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	450	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		77.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@9-10'
2303333-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500		mg/kg	10	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.0500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0500		"	"	"	"	"	"	
Chrysene	0.287	0.0500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0500		"	"	"	"	"	"	
Fluoranthene	0.147	0.0500		"	"	"	"	"	"	
Fluorene	1.85	0.0500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0500		"	"	"	"	"	"	
Pyrene	0.222	0.0500		"	"	"	"	"	"	
1-Methylnaphthalene	12.5	0.500		"	100	"	"	03/19/23	"	
2-Methylnaphthalene	20.7	0.500		"	"	"	"	"	"	E

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		84.0 %		40-150		"	"	03/19/23	"	
Surrogate: Fluoranthene-d10		107 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.732	0.0100		mg/L	1	BGC0418	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@9-10'
2303333-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.74	0.228	0.192	mg/kg dry	1	BGC0417	03/14/23	03/16/23	EPA 6020B	
Barium	154	0.456	0.360	"	"	"	"	"	"	
Cadmium	0.0922	0.228	0.00821	"	"	"	"	"	"	
Copper	11.5	0.456	0.0238	"	"	"	"	"	"	
Lead	8.34	0.228	0.0627	"	"	"	"	"	"	
Nickel	14.2	0.456	0.0696	"	"	"	"	"	"	
Selenium	0.542	0.260	0.175	"	"	"	"	"	"	
Silver	0.0272	0.0228	0.00304	"	"	"	"	"	"	
Zinc	39.6	0.456	0.303	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	36.4	0.0570		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	2.73	0.0570		"	"	"	"	"	"	
Sodium	449	0.0570		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	19.3	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@9-10'
2303333-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	87.7			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	2.62	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 08:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.13			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@14-15'
2303333-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.37	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	1.2	0.050		"	10	"	"	"	"	
Xylenes (total)	1.9	0.10		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	6.7	0.050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	2.5	0.050		"	"	"	"	"	"	
Naphthalene	1.8	0.038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	280	5.0		"	"	"	"	"	"	

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		130 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		149 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		141 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1500	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	240	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		70.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@14-15'
2303333-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500		mg/kg	10	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.0500		"	"	"	"	"	"	
Benzo (a) anthracene	0.0973	0.0500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0500		"	"	"	"	"	"	
Chrysene	0.0620	0.0500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0500		"	"	"	"	"	"	
Fluoranthene	0.0651	0.0500		"	"	"	"	"	"	
Fluorene	2.06	0.0500		"	"	"	"	"	"	E
Indeno (1,2,3-cd) pyrene	ND	0.0500		"	"	"	"	"	"	
Pyrene	0.113	0.0500		"	"	"	"	"	"	
1-Methylnaphthalene	9.96	0.500		"	100	"	"	03/19/23	"	
2-Methylnaphthalene	17.1	0.500		"	"	"	"	"	"	

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		119 %		40-150		"	"	03/19/23	"	
Surrogate: Fluoranthene-d10		58.9 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.648	0.0100		mg/L	1	BGC0418	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@14-15'
2303333-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	0.225	0.190	mg/kg dry	1	BGC0417	03/14/23	03/16/23	EPA 6020B
Arsenic	2.91	0.225	0.190	mg/kg dry	1	BGC0417	03/14/23	03/16/23	EPA 6020B
Barium	130	0.451	0.356	"	"	"	"	"	"
Cadmium	0.130	0.225	0.00812	"	"	"	"	"	"
Copper	6.87	0.451	0.0236	"	"	"	"	"	"
Lead	5.82	0.225	0.0620	"	"	"	"	"	"
Nickel	7.93	0.451	0.0688	"	"	"	"	"	"
Selenium	0.385	0.260	0.175	"	"	"	"	"	"
Silver	0.0251	0.0225	0.00301	"	"	"	"	"	"
Zinc	26.8	0.451	0.300	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 08:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 08:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	35.4	0.0564		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	4.27	0.0564		"	"	"	"	"	"	
Sodium	496	0.0564		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 08:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	21.0	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@14-15'
2303333-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	88.7			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	2.98	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 08:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.21			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@19-20'
2303333-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.017	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.090	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.57	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.53	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.20	0.0050		"	"	"	"	"	"	
Naphthalene	0.14	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	21	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		126 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		147 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		137 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	210	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	74	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:00**

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

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@19-20'
2303333-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	0.00538	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	0.0584	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	0.323	0.00500		"	"	"	"	"	"	E
2-Methylnaphthalene	0.465	0.00500		"	"	"	"	"	"	E

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		81.4 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.4 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.345	0.0100		mg/L	1	BGC0418	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@19-20'
2303333-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	6.38	0.229	0.193	mg/kg dry	1	BGC0417	03/14/23	03/16/23	EPA 6020B	
Barium	43.1	0.457	0.361	"	"	"	"	"	"	
Cadmium	0.0792	0.229	0.00823	"	"	"	"	"	"	
Copper	14.4	0.457	0.0239	"	"	"	"	"	"	
Lead	9.68	0.229	0.0628	"	"	"	"	"	"	
Nickel	4.62	0.457	0.0697	"	"	"	"	"	"	
Selenium	0.636	0.260	0.175	"	"	"	"	"	"	
Silver	0.0329	0.0229	0.00305	"	"	"	"	"	"	
Zinc	27.4	0.457	0.304	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 09:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 09:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	12.3	0.0571		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	5.50	0.0571		"	"	"	"	"	"	
Sodium	373	0.0571		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 09:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	22.2	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB01@19-20'
2303333-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	87.5			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	2.29	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.36			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@4-5'
2303333-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		139 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		96.1 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		79.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@4-5'
2303333-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		81.9 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.3 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0895	0.0100		mg/L	1	BGC0418	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@4-5'
2303333-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.16	0.212	0.179	mg/kg dry	1	BGC0417	03/14/23	03/16/23	EPA 6020B	
Barium	55.9	0.424	0.335	"	"	"	"	"	"	
Cadmium	0.0750	0.212	0.00763	"	"	"	"	"	"	
Copper	5.97	0.424	0.0221	"	"	"	"	"	"	
Lead	4.67	0.212	0.0582	"	"	"	"	"	"	
Nickel	6.59	0.424	0.0646	"	"	"	"	"	"	
Selenium	0.264	0.260	0.175	"	"	"	"	"	"	
Silver	0.0332	0.0212	0.00283	"	"	"	"	"	"	
Zinc	23.5	0.424	0.282	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 09:30

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 09:30

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	42.4	0.0530		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	13.0	0.0530		"	"	"	"	"	"	
Sodium	13.6	0.0530		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 09:30

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.469	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@4-5'
2303333-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	94.4			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.187	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 09:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.35			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@9-10'
2303333-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		144 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		58.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@9-10'
2303333-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		70.4 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		54.4 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.696	0.0100		mg/L	1	BGC0418	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@9-10'
2303333-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.25	0.229	0.193	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	143	0.458	0.362	"	"	"	"	"	"	
Cadmium	0.209	0.229	0.00825	"	"	"	"	"	"	
Copper	7.00	0.458	0.0239	"	"	"	"	"	"	
Lead	9.49	0.229	0.0630	"	"	"	"	"	"	
Nickel	8.50	0.458	0.0699	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0284	0.0229	0.00306	"	"	"	"	"	"	
Zinc	22.8	0.458	0.305	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 09:40

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 09:40

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	12.9	0.0573		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	4.63	0.0573		"	"	"	"	"	"	
Sodium	216	0.0573		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 09:40

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	13.1	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@9-10'
2303333-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	87.3			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.10	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 09:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.71			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@14-15'
2303333-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		135 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		48.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@14-15'
2303333-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.0 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		46.0 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.852	0.0100		mg/L	1	BGC0418	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@14-15'
2303333-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.35	0.227	0.191	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	137	0.454	0.359	"	"	"	"	"	"	
Cadmium	0.189	0.227	0.00818	"	"	"	"	"	"	
Copper	4.40	0.454	0.0237	"	"	"	"	"	"	
Lead	7.00	0.227	0.0624	"	"	"	"	"	"	
Nickel	5.84	0.454	0.0693	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0123	0.0227	0.00303	"	"	"	"	"	"	
Zinc	17.9	0.454	0.302	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 09:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 09:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	11.4	0.0568		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	1.60	0.0568		"	"	"	"	"	"	
Sodium	389	0.0568		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 09:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	28.6	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@14-15'
2303333-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	88.1			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	2.25	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.56			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@19-20'
2303333-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.13	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.086	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2.9	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		150 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		98.3 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		125 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		46.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@19-20'
2303333-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		70.6 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		56.5 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.475	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@19-20'
2303333-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.88	0.225	0.189	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	41.4	0.450	0.355	"	"	"	"	"	"	
Cadmium	0.107	0.225	0.00809	"	"	"	"	"	"	
Copper	6.43	0.450	0.0235	"	"	"	"	"	"	
Lead	6.68	0.225	0.0618	"	"	"	"	"	"	
Nickel	2.06	0.450	0.0686	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0274	0.0225	0.00300	"	"	"	"	"	"	
Zinc	19.6	0.450	0.299	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 09:50

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 09:50

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	6.11	0.0562		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	2.37	0.0562		"	"	"	"	"	"	
Sodium	200	0.0562		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 09:50

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	17.4	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB02@19-20'
2303333-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	89.0			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.27	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.01			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@4-5'
2303333-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		140 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		95.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		52.6 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@4-5'
2303333-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		47.3 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		56.3 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0644	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@4-5'
2303333-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.95	0.226	0.190	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	70.7	0.452	0.357	"	"	"	"	"	"	
Cadmium	0.157	0.226	0.00813	"	"	"	"	"	"	
Copper	4.17	0.452	0.0236	"	"	"	"	"	"	
Lead	6.12	0.226	0.0621	"	"	"	"	"	"	
Nickel	4.57	0.452	0.0689	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0267	0.0226	0.00302	"	"	"	"	"	"	
Zinc	17.1	0.452	0.300	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 10:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 10:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	37.6	0.0565		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	10.2	0.0565		"	"	"	"	"	"	
Sodium	17.9	0.0565		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 10:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.668	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@4-5'
2303333-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	88.5			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.465	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.98			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@9-10'
2303333-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		135 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		96.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/15/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:05**

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

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@9-10'
2303333-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		65.5 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		82.5 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0663	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@9-10'
2303333-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.46	0.243	0.205	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	95.1	0.486	0.384	"	"	"	"	"	"	
Cadmium	0.208	0.243	0.00876	"	"	"	"	"	"	
Copper	6.18	0.486	0.0254	"	"	"	"	"	"	
Lead	8.32	0.243	0.0668	"	"	"	"	"	"	
Nickel	7.63	0.486	0.0742	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0302	0.0243	0.00325	"	"	"	"	"	"	
Zinc	21.6	0.486	0.323	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 10:05

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 10:05

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	31.4	0.0608		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	9.03	0.0608		"	"	"	"	"	"	
Sodium	2.88	0.0608		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 10:05

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.117	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@9-10'
2303333-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	82.2			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.342	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 10:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.79			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@14-15'
2303333-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		73.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@14-15'
2303333-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		79.4 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.108	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@14-15'
2303333-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.63	0.232	0.195	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	76.8	0.464	0.367	"	"	"	"	"	"	
Cadmium	0.165	0.232	0.00835	"	"	"	"	"	"	
Copper	5.62	0.464	0.0242	"	"	"	"	"	"	
Lead	8.79	0.232	0.0638	"	"	"	"	"	"	
Nickel	6.79	0.464	0.0708	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0135	0.0232	0.00310	"	"	"	"	"	"	
Zinc	21.9	0.464	0.309	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	17.4	0.0580		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	4.59	0.0580		"	"	"	"	"	"	
Sodium	110	0.0580		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.06	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@14-15'
2303333-11 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	86.2			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.698	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.34			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@19-20'
2303333-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		100 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		78.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@19-20'
2303333-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.5 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		72.8 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.254	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@19-20'
2303333-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.62	0.238	0.201	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	166	0.477	0.377	"	"	"	"	"	"	
Cadmium	0.558	0.238	0.00858	"	"	"	"	"	"	
Copper	8.41	0.477	0.0249	"	"	"	"	"	"	
Lead	10.0	0.238	0.0655	"	"	"	"	"	"	
Nickel	9.79	0.477	0.0727	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0343	0.0238	0.00318	"	"	"	"	"	"	
Zinc	23.2	0.477	0.317	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	72.5	0.0596		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	4.69	0.0596		"	"	"	"	"	"	
Sodium	183	0.0596		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.63	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB03@19-20'
2303333-12 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	83.9			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.964	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.71			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@4-5'
2303333-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		102 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		80.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@4-5'
2303333-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		53.2 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		66.9 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0550	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@4-5'
2303333-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.07	0.213	0.179	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	59.8	0.426	0.337	"	"	"	"	"	"	
Cadmium	0.116	0.213	0.00767	"	"	"	"	"	"	
Copper	3.94	0.426	0.0223	"	"	"	"	"	"	
Lead	5.65	0.213	0.0585	"	"	"	"	"	"	
Nickel	4.27	0.426	0.0650	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0264	0.0213	0.00284	"	"	"	"	"	"	
Zinc	15.4	0.426	0.283	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 11:15

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 11:15

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	108	0.0533		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	52.8	0.0533		"	"	"	"	"	"	
Sodium	15.7	0.0533		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 11:15

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.310	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@4-5'
2303333-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	93.9			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.174	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.66			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@9-10'
2303333-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		101 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		98.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		63.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@9-10'
2303333-14 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.7 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		72.7 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0503	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@9-10'
2303333-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.83	0.228	0.192	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	412	0.457	0.361	"	"	"	"	"	"	
Cadmium	0.205	0.228	0.00822	"	"	"	"	"	"	
Copper	5.91	0.457	0.0239	"	"	"	"	"	"	
Lead	8.27	0.228	0.0627	"	"	"	"	"	"	
Nickel	6.88	0.457	0.0696	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0169	0.0228	0.00305	"	"	"	"	"	"	
Zinc	20.8	0.457	0.304	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 11:20

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 11:20

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	20.8	0.0571		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	5.41	0.0571		"	"	"	"	"	"	
Sodium	39.4	0.0571		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 11:20

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.99	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@9-10'
2303333-14 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	87.6			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.327	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.21			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@14-15'
2303333-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/15/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.0078	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.087	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.025	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.021	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.95	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		80.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@14-15'
2303333-15 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	0.0162	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	0.0309	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		97.6 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		81.5 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.128	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@14-15'
2303333-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.51	0.231	0.194	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	157	0.462	0.365	"	"	"	"	"	"	
Cadmium	0.101	0.231	0.00831	"	"	"	"	"	"	
Copper	6.33	0.462	0.0241	"	"	"	"	"	"	
Lead	7.48	0.231	0.0634	"	"	"	"	"	"	
Nickel	8.14	0.462	0.0704	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0106	0.0231	0.00308	"	"	"	"	"	"	
Zinc	19.0	0.462	0.307	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 11:25

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 11:25

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	200	0.0577		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	72.7	0.0577		"	"	"	"	"	"	
Sodium	129	0.0577		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 11:25

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.99	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@14-15'
2303333-15 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	86.7			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.577	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.88			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@19-20'
2303333-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	0.050	0.0020		mg/kg	1	BGC0415	03/14/23	03/15/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.17	0.0050		"	"	"	"	"	"	
Xylenes (total)	3.1	0.10		"	10	"	"	"	"	
1,2,4-Trimethylbenzene	0.31	0.0050		"	1	"	"	"	"	
1,3,5-Trimethylbenzene	0.23	0.0050		"	"	"	"	"	"	
Naphthalene	0.017	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	13	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %		50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		93.9 %		50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		124 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
<i>Surrogate: o-Terphenyl</i>		118 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@19-20'
2303333-16 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	0.0407	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	0.0793	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		111 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		81.6 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.514	0.0100		mg/L	1	BGC0480	03/16/23	03/18/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@19-20'
2303333-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.03	0.243	0.204	mg/kg dry	1	BGC0453	03/15/23	03/17/23	EPA 6020B	
Barium	264	0.485	0.383	"	"	"	"	"	"	
Cadmium	0.306	0.243	0.00873	"	"	"	"	"	"	
Copper	12.3	0.485	0.0254	"	"	"	"	"	"	
Lead	10.2	0.243	0.0667	"	"	"	"	"	"	
Nickel	19.5	0.485	0.0740	"	"	"	"	"	"	
Selenium	0.591	0.260	0.175	"	"	"	"	"	"	
Silver	0.0892	0.0243	0.00324	"	"	"	"	"	"	
Zinc	46.0	0.485	0.323	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 11:30

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 11:30

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	46.8	0.0607		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	6.67	0.0607		"	"	"	"	"	"	
Sodium	122	0.0607		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 11:30

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.42	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB04@19-20'
2303333-16 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	82.4			%	1	BGC0456	03/15/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.642	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.57			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@4-5'
2303333-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		106 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		76.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@4-5'
2303333-17 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	0.0133	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	0.0187	0.00500		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		74.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		84.8 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0601	0.0100		mg/L	1	BGC0480	03/16/23	03/18/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@4-5'
2303333-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.94	0.210	0.177	mg/kg dry	1	BGC0453	03/15/23	03/17/23	EPA 6020B	
Barium	73.4	0.421	0.332	"	"	"	"	"	"	
Cadmium	0.0759	0.210	0.00757	"	"	"	"	"	"	
Copper	6.68	0.421	0.0220	"	"	"	"	"	"	
Lead	4.92	0.210	0.0578	"	"	"	"	"	"	
Nickel	8.00	0.421	0.0642	"	"	"	"	"	"	
Selenium	0.299	0.260	0.175	"	"	"	"	"	"	
Silver	0.0235	0.0210	0.00281	"	"	"	"	"	"	
Zinc	25.6	0.421	0.280	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 11:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 11:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	15.5	0.0526		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	8.42	0.0526		"	"	"	"	"	"	
Sodium	19.0	0.0526		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 11:45

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.965	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@4-5'
2303333-17 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	95.1			%	1	BGC0456	03/15/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	2.74	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.07			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@9-10'
2303333-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		101 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		76.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@9-10'
2303333-18 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	0.0123	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		55.9 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		69.6 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.239	0.0100		mg/L	1	BGC0480	03/16/23	03/18/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@9-10'
2303333-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.69	0.226	0.191	mg/kg dry	1	BGC0453	03/15/23	03/17/23	EPA 6020B	
Barium	383	0.453	0.358	"	"	"	"	"	"	
Cadmium	0.149	0.226	0.00815	"	"	"	"	"	"	
Copper	9.16	0.453	0.0237	"	"	"	"	"	"	
Lead	7.57	0.226	0.0622	"	"	"	"	"	"	
Nickel	10.2	0.453	0.0691	"	"	"	"	"	"	
Selenium	0.423	0.260	0.175	"	"	"	"	"	"	
Silver	0.0201	0.0226	0.00302	"	"	"	"	"	"	
Zinc	36.2	0.453	0.301	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 11:50

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 11:50

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.3	0.0566		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	16.2	0.0566		"	"	"	"	"	"	
Sodium	35.9	0.0566		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 11:50

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.54	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@9-10'
2303333-18 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	88.3			%	1	BGC0456	03/15/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.380	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.15			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@14-15'
2303333-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGC0415	03/14/23	03/14/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		102 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0416	03/14/23	03/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		49.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@14-15'
2303333-19 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		53.4 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		66.3 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.638	0.0100		mg/L	1	BGC0480	03/16/23	03/18/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@14-15'
2303333-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	
Arsenic	5.23	0.237	0.200	mg/kg dry	1	BGC0453	03/15/23	03/17/23	EPA 6020B
Barium	259	0.474	0.375	"	"	"	"	"	"
Cadmium	0.129	0.237	0.00853	"	"	"	"	"	"
Copper	11.7	0.474	0.0248	"	"	"	"	"	"
Lead	9.49	0.237	0.0651	"	"	"	"	"	"
Nickel	10.7	0.474	0.0723	"	"	"	"	"	"
Selenium	0.579	0.260	0.175	"	"	"	"	"	"
Silver	0.0356	0.0237	0.00316	"	"	"	"	"	"
Zinc	33.4	0.474	0.315	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 11:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 11:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	103	0.0593		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	19.4	0.0593		"	"	"	"	"	"	
Sodium	95.8	0.0593		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 11:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.27	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@14-15'
2303333-19 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	84.4			%	1	BGC0456	03/15/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.526	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.70			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG01@4-5'
2303333-20 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0416	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	4.50	0.222	0.187	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	83.6	0.444	0.351	"	"	"	"	"	"	
Cadmium	0.182	0.222	0.00799	"	"	"	"	"	"	
Copper	5.21	0.444	0.0232	"	"	"	"	"	"	
Lead	6.85	0.222	0.0610	"	"	"	"	"	"	
Nickel	5.60	0.444	0.0677	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0191	0.0222	0.00296	"	"	"	"	"	"	
Zinc	18.3	0.444	0.295	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	16.9	0.0555		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	12.4	0.0555		"	"	"	"	"	"	
Sodium	3.26	0.0555		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG01@4-5'
2303333-20 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	0.147	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	90.1			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.252	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.09			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG01@9-10'
2303333-21 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0402	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	3.91	0.225	0.189	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	96.6	0.449	0.355	"	"	"	"	"	"	
Cadmium	0.199	0.225	0.00809	"	"	"	"	"	"	
Copper	5.46	0.449	0.0235	"	"	"	"	"	"	
Lead	7.63	0.225	0.0617	"	"	"	"	"	"	
Nickel	5.72	0.449	0.0685	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0144	0.0225	0.00300	"	"	"	"	"	"	
Zinc	19.8	0.449	0.299	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	16.0	0.0562		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	17.3	0.0562		"	"	"	"	"	"	
Sodium	3.92	0.0562		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG01@9-10'
2303333-21 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/14/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.162	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.0			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.282	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.15			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG01@14-15'
2303333-22 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.140	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	5.11	0.222	0.187	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	46.5	0.444	0.351	"	"	"	"	"	"	
Cadmium	0.113	0.222	0.00799	"	"	"	"	"	"	
Copper	5.71	0.444	0.0232	"	"	"	"	"	"	
Lead	6.40	0.222	0.0610	"	"	"	"	"	"	
Nickel	5.27	0.444	0.0677	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.00888	0.0222	0.00296	"	"	"	"	"	"	
Zinc	16.8	0.444	0.295	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	9.51	0.0555		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	6.67	0.0555		"	"	"	"	"	"	
Sodium	27.3	0.0555		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG01@14-15'
2303333-22 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/14/23 13:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.66	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 13:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.1			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 13:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.266	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 13:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.51			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG01@19-20'
2303333-23 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0822	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	7.69	0.228	0.192	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	31.8	0.456	0.360	"	"	"	"	"	"	
Cadmium	0.169	0.228	0.00821	"	"	"	"	"	"	
Copper	7.32	0.456	0.0238	"	"	"	"	"	"	
Lead	21.3	0.228	0.0627	"	"	"	"	"	"	
Nickel	2.74	0.456	0.0695	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0374	0.0228	0.00304	"	"	"	"	"	"	
Zinc	18.1	0.456	0.303	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	12.4	0.0570		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	11.2	0.0570		"	"	"	"	"	"	
Sodium	92.8	0.0570		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG01@19-20'
2303333-23 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/14/23 13:35**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.60	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 13:35**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.7			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 13:35**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.718	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 13:35**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.25			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG02@4-5'
2303333-24 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0329	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	2.06	0.213	0.180	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	80.3	0.427	0.337	"	"	"	"	"	"	"
Cadmium	0.119	0.213	0.00768	"	"	"	"	"	"	"
Copper	4.58	0.427	0.0223	"	"	"	"	"	"	"
Lead	4.96	0.213	0.0586	"	"	"	"	"	"	"
Nickel	5.02	0.427	0.0651	"	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"	"	"
Silver	0.0248	0.0213	0.00285	"	"	"	"	"	"	"
Zinc	16.0	0.427	0.284	"	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	36.8	0.0533		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	3.17	0.0533		"	"	"	"	"	"	"
Sodium	2.30	0.0533		"	"	"	"	"	"	"

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG02@4-5'
2303333-24 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/14/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0977	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.7			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.208	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 13:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.02			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG02@9-10'
2303333-25 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 13:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0452	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 13:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	5.26	0.229	0.193	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	116	0.459	0.363	"	"	"	"	"	"	"
Cadmium	0.313	0.229	0.00826	"	"	"	"	"	"	"
Copper	6.06	0.459	0.0240	"	"	"	"	"	"	"
Lead	8.56	0.229	0.0631	"	"	"	"	"	"	"
Nickel	7.54	0.459	0.0700	"	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"	"	"
Silver	0.0184	0.0229	0.00306	"	"	"	"	"	"	"
Zinc	21.9	0.459	0.305	"	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 13:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 13:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	15.5	0.0574		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	22.2	0.0574		"	"	"	"	"	"	"
Sodium	4.26	0.0574		"	"	"	"	"	"	"

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG02@9-10'
2303333-25 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/14/23 13:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.163	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 13:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.2			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 13:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.327	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 13:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.12			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG02@14-15'
2303333-26 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0626	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	3.25	0.225	0.190	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	65.0	0.451	0.356	"	"	"	"	"	"	"
Cadmium	0.237	0.225	0.00811	"	"	"	"	"	"	"
Copper	4.10	0.451	0.0235	"	"	"	"	"	"	"
Lead	5.98	0.225	0.0619	"	"	"	"	"	"	"
Nickel	5.40	0.451	0.0687	"	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"	"	"
Silver	0.0131	0.0225	0.00301	"	"	"	"	"	"	"
Zinc	16.1	0.451	0.300	"	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	13.1	0.0563		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	8.42	0.0563		"	"	"	"	"	"	"
Sodium	45.6	0.0563		"	"	"	"	"	"	"

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG02@14-15'
2303333-26 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/14/23 13:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.42	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 13:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.8			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 13:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.353	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 13:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.67			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG02@19-20'
2303333-27 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 13:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.227	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 13:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	7.18	0.228	0.192	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	38.6	0.455	0.360	"	"	"	"	"	"	
Cadmium	0.117	0.228	0.00819	"	"	"	"	"	"	
Copper	8.12	0.455	0.0238	"	"	"	"	"	"	
Lead	9.92	0.228	0.0625	"	"	"	"	"	"	
Nickel	2.22	0.455	0.0694	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0305	0.0228	0.00304	"	"	"	"	"	"	
Zinc	21.4	0.455	0.303	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/14/23 13:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: **03/14/23 13:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	17.5	0.0569		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	17.6	0.0569		"	"	"	"	"	"	
Sodium	208	0.0569		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

BG02@19-20'
2303333-27 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/14/23 13:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.40	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 13:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.9			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 13:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.39	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 13:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.19			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@19'-20'
2303333-28 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/14/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGC0427	03/15/23	03/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **03/14/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		60.9 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		75.0 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/14/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.170	0.0100		mg/L	1	BGC0422	03/14/23	03/17/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/14/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@19'-20'
2303333-28 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.95	0.227	0.191	mg/kg dry	1	BGC0423	03/14/23	03/17/23	EPA 6020B	
Barium	78.4	0.453	0.358	"	"	"	"	"	"	
Cadmium	0.119	0.227	0.00816	"	"	"	"	"	"	
Copper	7.23	0.453	0.0237	"	"	"	"	"	"	
Lead	10.6	0.227	0.0623	"	"	"	"	"	"	
Nickel	3.39	0.453	0.0691	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0331	0.0227	0.00302	"	"	"	"	"	"	
Zinc	18.5	0.453	0.301	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 03/14/23 00:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0640	03/20/23	03/20/23	EPA 7196A	

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

Date Sampled: 03/14/23 00:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	103	0.0566		mg/L dry	1	BGC0429	03/15/23	03/17/23	EPA 6020B	
Magnesium	30.8	0.0566		"	"	"	"	"	"	
Sodium	45.0	0.0566		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 03/14/23 00:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.999	0.00100		units	1	BGC0533	03/17/23	03/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

SB05@19'-20'
2303333-28 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/14/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	88.3			%	1	BGC0486	03/16/23	03/16/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/14/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.976	0.0100		mmhos/cm	1	BGC0489	03/16/23	03/16/23	EPA 120.1	

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

Date Sampled: **03/14/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	9.44			pH Units	1	BGC0488	03/16/23	03/16/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGC0415 - EPA 5030 Soil MS

Blank (BGC0415-BLK1)

Prepared: 03/14/23 Analyzed: 03/15/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0393		"	0.0400		98.3	50-150			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.5	50-150			
Surrogate: 4-Bromofluorobenzene	0.0434		"	0.0400		109	50-150			

Blank (BGC0415-BLK2)

Prepared: 03/14/23 Analyzed: 03/15/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0390		"	0.0400		97.6	50-150			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0443		"	0.0400		111	50-150			

LCS (BGC0415-BS1)

Prepared: 03/14/23 Analyzed: 03/15/23

Benzene	0.0924	0.0020	mg/kg	0.125		73.9	70-130			
Toluene	0.111	0.0050	"	0.125		88.6	70-130			
Ethylbenzene	0.138	0.0050	"	0.125		110	70-130			
m,p-Xylene	0.274	0.010	"	0.250		110	70-130			
o-Xylene	0.128	0.0050	"	0.125		102	70-130			
1,2,4-Trimethylbenzene	0.148	0.0050	"	0.125		119	70-130			
1,3,5-Trimethylbenzene	0.151	0.0050	"	0.125		121	70-130			
Naphthalene	0.0971	0.0038	"	0.125		77.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	50-150			
Surrogate: Toluene-d8	0.0413		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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 BGC0415 - EPA 5030 Soil MS

LCS (BGC0415-BS2)

Prepared: 03/14/23 Analyzed: 03/15/23

Benzene	0.117	0.0020	mg/kg	0.125		93.3	70-130			
Toluene	0.106	0.0050	"	0.125		84.8	70-130			
Ethylbenzene	0.137	0.0050	"	0.125		109	70-130			
m,p-Xylene	0.272	0.010	"	0.250		109	70-130			
o-Xylene	0.127	0.0050	"	0.125		102	70-130			
1,2,4-Trimethylbenzene	0.149	0.0050	"	0.125		119	70-130			
1,3,5-Trimethylbenzene	0.152	0.0050	"	0.125		121	70-130			
Naphthalene	0.103	0.0038	"	0.125		82.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0405		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

Matrix Spike (BGC0415-MS1)

Source: 2303333-04

Prepared: 03/14/23 Analyzed: 03/15/23

Benzene	0.131	0.0020	mg/kg	0.125	0.0172	90.6	70-130			
Toluene	0.0980	0.0050	"	0.125	ND	78.4	70-130			
Ethylbenzene	0.196	0.0050	"	0.125	0.0902	84.5	70-130			
m,p-Xylene	0.617	0.010	"	0.250	0.525	36.9	70-130			QM-02
o-Xylene	0.163	0.0050	"	0.125	0.0502	89.9	70-130			
1,2,4-Trimethylbenzene	0.507	0.0050	"	0.125	0.526	NR	70-130			QM-02
1,3,5-Trimethylbenzene	0.243	0.0050	"	0.125	0.204	31.3	70-130			QM-02
Naphthalene	0.216	0.0038	"	0.125	0.142	59.4	70-130			QM-02
Surrogate: 1,2-Dichloroethane-d4	0.0428		"	0.0400		107	50-150			
Surrogate: Toluene-d8	0.0355		"	0.0400		88.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0516		"	0.0400		129	50-150			

Matrix Spike (BGC0415-MS2)

Source: 2303333-05

Prepared: 03/14/23 Analyzed: 03/15/23

Benzene	0.143	0.0020	mg/kg	0.125	ND	115	70-130			
Toluene	0.103	0.0050	"	0.125	ND	82.2	70-130			
Ethylbenzene	0.133	0.0050	"	0.125	ND	106	70-130			
m,p-Xylene	0.265	0.010	"	0.250	ND	106	70-130			
o-Xylene	0.125	0.0050	"	0.125	ND	99.6	70-130			
1,2,4-Trimethylbenzene	0.148	0.0050	"	0.125	ND	119	70-130			
1,3,5-Trimethylbenzene	0.148	0.0050	"	0.125	ND	118	70-130			
Naphthalene	0.122	0.0038	"	0.125	0.00363	94.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0412		"	0.0400		103	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0414		"	0.0400		104	50-150			

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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

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

Batch BGC0415 - EPA 5030 Soil MS

Matrix Spike Dup (BGC0415-MSD1)		Source: 2303333-04			Prepared: 03/14/23		Analyzed: 03/15/23		
Benzene	0.137	0.0020	mg/kg	0.125	0.0172	95.8	70-130	4.80	30
Toluene	0.0982	0.0050	"	0.125	ND	78.5	70-130	0.184	30
Ethylbenzene	0.201	0.0050	"	0.125	0.0902	89.0	70-130	2.84	30
m,p-Xylene	0.652	0.010	"	0.250	0.525	51.1	70-130	5.58	30 QM-02
o-Xylene	0.164	0.0050	"	0.125	0.0502	91.0	70-130	0.864	30
1,2,4-Trimethylbenzene	0.563	0.0050	"	0.125	0.526	29.0	70-130	10.5	30 QM-02
1,3,5-Trimethylbenzene	0.238	0.0050	"	0.125	0.204	27.5	70-130	1.97	30 QM-02
Naphthalene	0.227	0.0038	"	0.125	0.142	67.6	70-130	4.58	30 QM-02
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0436</i>		"	<i>0.0400</i>		<i>109</i>	<i>50-150</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0359</i>		"	<i>0.0400</i>		<i>89.8</i>	<i>50-150</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0533</i>		"	<i>0.0400</i>		<i>133</i>	<i>50-150</i>		

Matrix Spike Dup (BGC0415-MSD2)		Source: 2303333-05			Prepared: 03/14/23		Analyzed: 03/15/23		
Benzene	0.141	0.0020	mg/kg	0.125	ND	112	70-130	1.94	30
Toluene	0.0982	0.0050	"	0.125	ND	78.6	70-130	4.45	30
Ethylbenzene	0.132	0.0050	"	0.125	ND	105	70-130	0.885	30
m,p-Xylene	0.262	0.010	"	0.250	ND	105	70-130	1.12	30
o-Xylene	0.125	0.0050	"	0.125	ND	99.7	70-130	0.0482	30
1,2,4-Trimethylbenzene	0.148	0.0050	"	0.125	ND	119	70-130	0.0607	30
1,3,5-Trimethylbenzene	0.147	0.0050	"	0.125	ND	118	70-130	0.406	30
Naphthalene	0.118	0.0038	"	0.125	0.00363	91.8	70-130	3.05	30
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0412</i>		"	<i>0.0400</i>		<i>103</i>	<i>50-150</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0406</i>		"	<i>0.0400</i>		<i>101</i>	<i>50-150</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0406</i>		"	<i>0.0400</i>		<i>102</i>	<i>50-150</i>		

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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 BGC0416 - EPA 3550A

Blank (BGC0416-BLK1)

Prepared: 03/14/23 Analyzed: 03/15/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	10.8		"	12.5		86.0	30-150				

Blank (BGC0416-BLK2)

Prepared: 03/14/23 Analyzed: 03/15/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	10.0		"	12.5		80.0	30-150				

LCS (BGC0416-BS1)

Prepared: 03/14/23 Analyzed: 03/15/23

C10-C28 (DRO)	481	50	mg/kg	500		96.3	70-130				
Surrogate: <i>o</i> -Terphenyl	9.13		"	12.5		73.1	30-150				

LCS (BGC0416-BS2)

Prepared: 03/14/23 Analyzed: 03/15/23

C10-C28 (DRO)	513	50	mg/kg	500		103	70-130				
Surrogate: <i>o</i> -Terphenyl	11.4		"	12.5		91.2	30-150				

Matrix Spike (BGC0416-MS1)

Source: 2303333-05

Prepared: 03/14/23 Analyzed: 03/15/23

C10-C28 (DRO)	408	50	mg/kg	500	38.4	74.0	70-130				
Surrogate: <i>o</i> -Terphenyl	9.34		"	12.5		74.7	30-150				

Matrix Spike (BGC0416-MS2)

Source: 2303333-02

Prepared: 03/14/23 Analyzed: 03/15/23

C10-C28 (DRO)	3460	50	mg/kg	500	2900	111	70-130				
Surrogate: <i>o</i> -Terphenyl	10.8		"	12.5		86.6	30-150				

Matrix Spike Dup (BGC0416-MSD1)

Source: 2303333-05

Prepared: 03/14/23 Analyzed: 03/15/23

C10-C28 (DRO)	415	50	mg/kg	500	38.4	75.3	70-130	1.62	20		
Surrogate: <i>o</i> -Terphenyl	9.45		"	12.5		75.6	30-150				

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.



Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
 Project Manager: Mike Dinkel

Reported:
 03/21/23 17:04

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGC0416 - EPA 3550A

Matrix Spike Dup (BGC0416-MSD2)

Source: 2303333-02

Prepared: 03/14/23 Analyzed: 03/15/23

C10-C28 (DRO)	3340	50	mg/kg	500	2900	86.9	70-130	3.55	20	
Surrogate: <i>o</i> -Terphenyl	10.8		"	12.5		86.4	30-150			

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGC0427 - EPA 5030 Soil MS

Blank (BGC0427-BLK1)

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

Acenaphthene	ND	0.00500	mg/kg									
Acenaphthene	ND	0.00500	"									
Anthracene	ND	0.00500	"									
Anthracene	ND	0.00500	"									
Benzo (a) anthracene	ND	0.00500	"									
Benzo (a) anthracene	ND	0.00500	"									
Benzo (a) pyrene	ND	0.00500	"									
Benzo (a) pyrene	ND	0.00500	"									
Benzo (b) fluoranthene	ND	0.00500	"									
Benzo (b) fluoranthene	ND	0.00500	"									
Benzo (k) fluoranthene	ND	0.00500	"									
Benzo (k) fluoranthene	ND	0.00500	"									
Chrysene	ND	0.00500	"									
Chrysene	ND	0.00500	"									
Dibenz (a,h) anthracene	ND	0.00500	"									
Dibenz (a,h) anthracene	ND	0.00500	"									
Fluoranthene	ND	0.00500	"									
Fluoranthene	ND	0.00500	"									
Fluorene	ND	0.00500	"									
Fluorene	ND	0.00500	"									
Indeno (1,2,3-cd) pyrene	ND	0.00500	"									
Indeno (1,2,3-cd) pyrene	ND	0.00500	"									
Pyrene	ND	0.00500	"									
Pyrene	ND	0.00500	"									
1-Methylnaphthalene	ND	0.00500	"									
1-Methylnaphthalene	ND	0.00500	"									
2-Methylnaphthalene	ND	0.00500	"									
2-Methylnaphthalene	ND	0.00500	"									
Surrogate: 2-Methylnaphthalene-d10	0.0391		"	0.0333		117		40-150				
Surrogate: 2-Methylnaphthalene-d10	0.0391		"	0.0333		117		40-150				
Surrogate: Fluoranthene-d10	0.0300		"	0.0333		90.1		40-150				
Surrogate: Fluoranthene-d10	0.0300		"	0.0333		90.1		40-150				

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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 BGC0427 - EPA 5030 Soil MS

LCS (BGC0427-BS1)

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

Acenaphthene	0.0330	0.00500	mg/kg	0.0333		99.1	31-137			
Acenaphthene	0.0330	0.00500	"	0.0333		99.1	31-137			
Anthracene	0.0369	0.00500	"	0.0333		111	30-120			
Anthracene	0.0369	0.00500	"	0.0333		111	30-120			
Benzo (a) anthracene	0.0265	0.00500	"	0.0333		79.5	30-120			
Benzo (a) anthracene	0.0265	0.00500	"	0.0333		79.5	30-120			
Benzo (a) pyrene	0.0289	0.00500	"	0.0333		86.6	30-120			
Benzo (a) pyrene	0.0289	0.00500	"	0.0333		86.6	30-120			
Benzo (b) fluoranthene	0.0293	0.00500	"	0.0333		87.9	30-120			
Benzo (b) fluoranthene	0.0293	0.00500	"	0.0333		87.9	30-120			
Benzo (k) fluoranthene	0.0336	0.00500	"	0.0333		101	30-120			
Benzo (k) fluoranthene	0.0336	0.00500	"	0.0333		101	30-120			
Chrysene	0.0260	0.00500	"	0.0333		77.9	30-120			
Chrysene	0.0260	0.00500	"	0.0333		77.9	30-120			
Dibenz (a,h) anthracene	0.0286	0.00500	"	0.0333		85.8	30-120			
Dibenz (a,h) anthracene	0.0286	0.00500	"	0.0333		85.8	30-120			
Fluoranthene	0.0396	0.00500	"	0.0333		119	30-120			
Fluoranthene	0.0396	0.00500	"	0.0333		119	30-120			
Fluorene	0.0375	0.00500	"	0.0333		112	30-120			
Fluorene	0.0375	0.00500	"	0.0333		112	30-120			
Indeno (1,2,3-cd) pyrene	0.0271	0.00500	"	0.0333		81.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0271	0.00500	"	0.0333		81.2	30-120			
Pyrene	0.0291	0.00500	"	0.0333		87.2	35-142			
Pyrene	0.0291	0.00500	"	0.0333		87.2	35-142			
1-Methylnaphthalene	0.0361	0.00500	"	0.0333		108	35-142			
1-Methylnaphthalene	0.0361	0.00500	"	0.0333		108	35-142			
2-Methylnaphthalene	0.0328	0.00500	"	0.0333		98.4	35-142			
2-Methylnaphthalene	0.0328	0.00500	"	0.0333		98.4	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0377		"	0.0333		113	40-150			
Surrogate: 2-Methylnaphthalene-d10	0.0377		"	0.0333		113	40-150			
Surrogate: Fluoranthene-d10	0.0343		"	0.0333		103	40-150			
Surrogate: Fluoranthene-d10	0.0343		"	0.0333		103	40-150			

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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 BGC0427 - EPA 5030 Soil MS

LCS Dup (BGC0427-BSD1)

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

Acenaphthene	0.0330	0.00500	mg/kg	0.0333	99.0	31-137	0.142	30	
Acenaphthene	0.0330	0.00500	"	0.0333	99.0	31-137	0.142	30	
Anthracene	0.0364	0.00500	"	0.0333	109	30-120	1.38	30	
Anthracene	0.0364	0.00500	"	0.0333	109	30-120	1.38	30	
Benzo (a) anthracene	0.0264	0.00500	"	0.0333	79.1	30-120	0.491	30	
Benzo (a) anthracene	0.0264	0.00500	"	0.0333	79.1	30-120	0.491	30	
Benzo (a) pyrene	0.0294	0.00500	"	0.0333	88.2	30-120	1.82	30	
Benzo (a) pyrene	0.0294	0.00500	"	0.0333	88.2	30-120	1.82	30	
Benzo (b) fluoranthene	0.0289	0.00500	"	0.0333	86.7	30-120	1.37	30	
Benzo (b) fluoranthene	0.0289	0.00500	"	0.0333	86.7	30-120	1.37	30	
Benzo (k) fluoranthene	0.0331	0.00500	"	0.0333	99.4	30-120	1.41	30	
Benzo (k) fluoranthene	0.0331	0.00500	"	0.0333	99.4	30-120	1.41	30	
Chrysene	0.0258	0.00500	"	0.0333	77.3	30-120	0.764	30	
Chrysene	0.0258	0.00500	"	0.0333	77.3	30-120	0.764	30	
Dibenz (a,h) anthracene	0.0270	0.00500	"	0.0333	81.1	30-120	5.69	30	
Dibenz (a,h) anthracene	0.0270	0.00500	"	0.0333	81.1	30-120	5.69	30	
Fluoranthene	0.0333	0.00500	"	0.0333	99.9	30-120	17.4	30	
Fluoranthene	0.0333	0.00500	"	0.0333	99.9	30-120	17.4	30	
Fluorene	0.0373	0.00500	"	0.0333	112	30-120	0.414	30	
Fluorene	0.0373	0.00500	"	0.0333	112	30-120	0.414	30	
Indeno (1,2,3-cd) pyrene	0.0235	0.00500	"	0.0333	70.5	30-120	14.2	30	
Indeno (1,2,3-cd) pyrene	0.0235	0.00500	"	0.0333	70.5	30-120	14.2	30	
Pyrene	0.0295	0.00500	"	0.0333	88.4	35-142	1.36	30	
Pyrene	0.0295	0.00500	"	0.0333	88.4	35-142	1.36	30	
1-Methylnaphthalene	0.0348	0.00500	"	0.0333	104	35-142	3.68	30	
1-Methylnaphthalene	0.0348	0.00500	"	0.0333	104	35-142	3.68	30	
2-Methylnaphthalene	0.0373	0.00500	"	0.0333	112	35-142	12.8	30	
2-Methylnaphthalene	0.0373	0.00500	"	0.0333	112	35-142	12.8	30	
Surrogate: 2-Methylnaphthalene-d10	0.0391		"	0.0333	117	40-150			
Surrogate: 2-Methylnaphthalene-d10	0.0391		"	0.0333	117	40-150			
Surrogate: Fluoranthene-d10	0.0377		"	0.0333	113	40-150			
Surrogate: Fluoranthene-d10	0.0377		"	0.0333	113	40-150			

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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 BGC0418 - EPA 3050B

Blank (BGC0418-BLK1)											
Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	ND	0.0100	mg/L								
LCS (BGC0418-BS1)											
Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	5.96	0.0100	mg/L	5.00	119	80-120					
Duplicate (BGC0418-DUP1)											
Source: 2303331-01 Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	0.320	0.0100	mg/L		0.286			11.2	20		
Matrix Spike (BGC0418-MS1)											
Source: 2303331-01 Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	6.01	0.0100	mg/L	5.00	0.286	115	75-125				
Matrix Spike Dup (BGC0418-MSD1)											
Source: 2303331-01 Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	6.00	0.0100	mg/L	5.00	0.286	114	75-125	0.287	25		

Batch BGC0422 - EPA 3050B

Blank (BGC0422-BLK1)											
Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	ND	0.0100	mg/L								
LCS (BGC0422-BS1)											
Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	5.44	0.0100	mg/L	5.00	109	80-120					
Duplicate (BGC0422-DUP1)											
Source: 2303333-08 Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	0.447	0.0100	mg/L		0.475			6.04	20		
Matrix Spike (BGC0422-MS1)											
Source: 2303333-08 Prepared: 03/14/23 Analyzed: 03/17/23											
Boron	5.85	0.0100	mg/L	5.00	0.475	107	75-125				

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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 BGC0422 - EPA 3050B

Matrix Spike Dup (BGC0422-MSD1)		Source: 2303333-08			Prepared: 03/14/23		Analyzed: 03/17/23		
Boron	6.08	0.0100	mg/L	5.00	0.475	112	75-125	3.89	25

Batch BGC0480 - EPA 3050B

Blank (BGC0480-BLK1)					Prepared: 03/16/23		Analyzed: 03/18/23		
Boron	ND	0.0100	mg/L						

LCS (BGC0480-BS1)					Prepared: 03/16/23		Analyzed: 03/18/23		
Boron	5.04	0.0100	mg/L	5.00		101	80-120		

Duplicate (BGC0480-DUP1)		Source: 2303289-01			Prepared: 03/16/23		Analyzed: 03/18/23		
Boron	0.478	0.0100	mg/L		0.486			1.71	20

Matrix Spike (BGC0480-MS1)		Source: 2303289-01			Prepared: 03/16/23		Analyzed: 03/18/23		
Boron	5.25	0.0100	mg/L	5.00	0.486	95.2	75-125		

Matrix Spike Dup (BGC0480-MSD1)		Source: 2303289-01			Prepared: 03/16/23		Analyzed: 03/18/23		
Boron	5.26	0.0100	mg/L	5.00	0.486	95.5	75-125	0.249	25

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGC0417 - EPA 3050B

Blank (BGC0417-BLK1)

Prepared: 03/14/23 Analyzed: 03/16/23

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Selenium	ND	0.260	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							

LCS (BGC0417-BS1)

Prepared: 03/14/23 Analyzed: 03/16/23

Arsenic	39.7	0.200	mg/kg wet	40.0	99.3	80-120
Barium	36.0	0.400	"	40.0	90.1	80-120
Cadmium	1.88	0.200	"	2.00	93.8	80-120
Copper	38.3	0.400	"	40.0	95.7	80-120
Lead	17.5	0.200	"	20.0	87.7	80-120
Nickel	38.2	0.400	"	40.0	95.4	80-120
Selenium	3.73	0.260	"	4.00	93.4	80-120
Silver	1.68	0.0200	"	2.00	83.9	80-120
Zinc	40.6	0.400	"	40.0	101	80-120

Duplicate (BGC0417-DUP1)

Source: 2303306-01

Prepared: 03/14/23 Analyzed: 03/16/23

Arsenic	2.35	0.251	mg/kg dry	5.30	77.1	20	QR-03
Barium	520	0.503	"	464	11.4	20	
Cadmium	0.211	0.251	"	0.197	6.77	20	
Copper	34.8	0.503	"	18.7	60.0	20	QR-03
Lead	43.6	0.251	"	36.6	17.5	20	
Nickel	6.28	0.503	"	6.11	2.82	20	
Selenium	1.48	0.260	"	1.22	19.2	20	
Silver	0.113	0.0251	"	0.0864	26.8	20	QR-03
Zinc	78.4	0.503	"	84.5	7.52	20	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGC0417 - EPA 3050B

Matrix Spike (BGC0417-MS1)

Source: 2303306-01

Prepared: 03/14/23 Analyzed: 03/16/23

Arsenic	50.0	0.251	mg/kg dry	50.3	5.30	88.9	75-125				
Barium	1070	0.503	"	50.3	464	NR	75-125				QM-02
Cadmium	2.47	0.251	"	2.51	0.197	90.6	75-125				
Copper	62.7	0.503	"	50.3	18.7	87.6	75-125				
Lead	52.3	0.251	"	25.1	36.6	62.8	75-125				QM-05
Nickel	51.3	0.503	"	50.3	6.11	89.9	75-125				
Selenium	5.13	0.260	"	5.03	1.22	77.9	75-125				
Silver	0.844	0.0251	"	2.51	0.0864	30.2	75-125				QM-05
Zinc	136	0.503	"	50.3	84.5	103	75-125				

Matrix Spike Dup (BGC0417-MSD1)

Source: 2303306-01

Prepared: 03/14/23 Analyzed: 03/16/23

Arsenic	53.0	0.251	mg/kg dry	50.3	5.30	94.9	75-125	5.88	25		
Barium	1150	0.503	"	50.3	464	NR	75-125	7.64	25		QM-02
Cadmium	2.69	0.251	"	2.51	0.197	99.2	75-125	8.43	25		
Copper	66.4	0.503	"	50.3	18.7	94.9	75-125	5.72	25		
Lead	56.0	0.251	"	25.1	36.6	77.2	75-125	6.69	25		
Nickel	54.6	0.503	"	50.3	6.11	96.5	75-125	6.30	25		
Selenium	5.47	0.260	"	5.03	1.22	84.5	75-125	6.27	25		
Silver	0.917	0.0251	"	2.51	0.0864	33.1	75-125	8.26	25		QM-05
Zinc	145	0.503	"	50.3	84.5	120	75-125	5.84	25		

Batch BGC0423 - EPA 3050B

Blank (BGC0423-BLK1)

Prepared: 03/14/23 Analyzed: 03/17/23

Arsenic	ND	0.200	mg/kg wet								
Barium	ND	0.400	"								
Cadmium	ND	0.200	"								
Copper	ND	0.400	"								
Lead	ND	0.200	"								
Nickel	ND	0.400	"								
Selenium	ND	0.260	"								
Silver	ND	0.0200	"								
Zinc	ND	0.400	"								

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGC0423 - EPA 3050B

LCS (BGC0423-BS1)

Prepared: 03/14/23 Analyzed: 03/17/23

Arsenic	38.9	0.200	mg/kg wet	40.0		97.3	80-120		
Barium	38.5	0.400	"	40.0		96.2	80-120		
Cadmium	1.85	0.200	"	2.00		92.4	80-120		
Copper	37.3	0.400	"	40.0		93.4	80-120		
Lead	18.5	0.200	"	20.0		92.7	80-120		
Nickel	36.3	0.400	"	40.0		90.8	80-120		
Selenium	4.16	0.260	"	4.00		104	80-120		
Silver	1.71	0.0200	"	2.00		85.6	80-120		
Zinc	36.2	0.400	"	40.0		90.5	80-120		

Duplicate (BGC0423-DUP1)

Source: 2303333-06

Prepared: 03/14/23 Analyzed: 03/17/23

Arsenic	5.23	0.229	mg/kg dry		5.25			0.455	20
Barium	142	0.458	"		143			0.372	20
Cadmium	0.212	0.229	"		0.209			1.31	20
Copper	6.95	0.458	"		7.00			0.618	20
Lead	9.34	0.229	"		9.49			1.51	20
Nickel	8.46	0.458	"		8.50			0.486	20
Selenium	ND	0.260	"		ND				20
Silver	0.0261	0.0229	"		0.0284			8.40	20
Zinc	22.7	0.458	"		22.8			0.433	20

Matrix Spike (BGC0423-MS1)

Source: 2303333-06

Prepared: 03/14/23 Analyzed: 03/17/23

Arsenic	48.4	0.229	mg/kg dry	45.8	5.25	94.1	75-125		
Barium	171	0.458	"	45.8	143	60.3	75-125		QM-02
Cadmium	2.32	0.229	"	2.29	0.209	92.1	75-125		
Copper	31.9	0.458	"	45.8	7.00	54.3	75-125		QM-07
Lead	29.8	0.229	"	22.9	9.49	88.5	75-125		
Nickel	33.1	0.458	"	45.8	8.50	53.7	75-125		QM-07
Selenium	4.25	0.260	"	4.58	ND	92.6	75-125		
Silver	1.77	0.0229	"	2.29	0.0284	75.9	75-125		
Zinc	46.8	0.458	"	45.8	22.8	52.2	75-125		QM-07

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGC0423 - EPA 3050B

Matrix Spike Dup (BGC0423-MSD1)

Source: 2303333-06

Prepared: 03/14/23 Analyzed: 03/17/23

Arsenic	47.4	0.229	mg/kg dry	45.8	5.25	92.1	75-125	1.96	25	
Barium	168	0.458	"	45.8	143	55.5	75-125	1.29	25	QM-02
Cadmium	2.29	0.229	"	2.29	0.209	90.9	75-125	1.13	25	
Copper	32.1	0.458	"	45.8	7.00	54.7	75-125	0.541	25	QM-07
Lead	29.4	0.229	"	22.9	9.49	86.9	75-125	1.23	25	
Nickel	33.2	0.458	"	45.8	8.50	54.0	75-125	0.345	25	QM-07
Selenium	4.44	0.260	"	4.58	ND	96.9	75-125	4.53	25	
Silver	1.76	0.0229	"	2.29	0.0284	75.7	75-125	0.260	25	
Zinc	46.9	0.458	"	45.8	22.8	52.6	75-125	0.362	25	QM-07

Batch BGC0453 - EPA 3050B

Blank (BGC0453-BLK1)

Prepared: 03/15/23 Analyzed: 03/17/23

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Selenium	ND	0.260	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							

LCS (BGC0453-BS1)

Prepared: 03/15/23 Analyzed: 03/17/23

Arsenic	39.7	0.200	mg/kg wet	40.0		99.2	80-120			
Barium	39.1	0.400	"	40.0		97.7	80-120			
Cadmium	1.97	0.200	"	2.00		98.3	80-120			
Copper	38.5	0.400	"	40.0		96.2	80-120			
Lead	19.3	0.200	"	20.0		96.4	80-120			
Nickel	37.8	0.400	"	40.0		94.4	80-120			
Selenium	3.79	0.260	"	4.00		94.9	80-120			
Silver	1.78	0.0200	"	2.00		89.0	80-120			
Zinc	40.1	0.400	"	40.0		100	80-120			

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGC0453 - EPA 3050B

Duplicate (BGC0453-DUP1)		Source: 2303333-16			Prepared: 03/15/23		Analyzed: 03/17/23		
Arsenic	4.02	0.243	mg/kg dry	4.03	4.03	96.9	75-125	0.355	20
Barium	266	0.485	"	264	264	200	75-125	0.786	20
Cadmium	0.303	0.243	"	0.306	0.306	98.3	75-125	0.999	20
Copper	12.3	0.485	"	12.3	12.3	96.5	75-125	0.119	20
Lead	10.3	0.243	"	10.2	10.2	86.4	75-125	0.790	20
Nickel	19.4	0.485	"	19.5	19.5	90.0	75-125	0.442	20
Selenium	0.556	0.260	"	0.591	0.591	82.4	75-125	6.05	20
Silver	0.0996	0.0243	"	0.0892	0.0892	85.1	75-125	11.0	20
Zinc	46.2	0.485	"	46.0	46.0	97.0	75-125	0.573	20

Matrix Spike (BGC0453-MS1)		Source: 2303333-16			Prepared: 03/15/23		Analyzed: 03/17/23		
Arsenic	51.1	0.243	mg/kg dry	48.5	4.03	96.9	75-125		
Barium	362	0.485	"	48.5	264	200	75-125		QM-02
Cadmium	2.69	0.243	"	2.43	0.306	98.3	75-125		
Copper	59.1	0.485	"	48.5	12.3	96.5	75-125		
Lead	31.2	0.243	"	24.3	10.2	86.4	75-125		
Nickel	63.2	0.485	"	48.5	19.5	90.0	75-125		
Selenium	4.59	0.260	"	4.85	0.591	82.4	75-125		
Silver	2.15	0.0243	"	2.43	0.0892	85.1	75-125		
Zinc	93.0	0.485	"	48.5	46.0	97.0	75-125		

Matrix Spike Dup (BGC0453-MSD1)		Source: 2303333-16			Prepared: 03/15/23		Analyzed: 03/17/23		
Arsenic	51.7	0.243	mg/kg dry	48.5	4.03	98.2	75-125	1.22	25
Barium	354	0.485	"	48.5	264	184	75-125	2.20	25
Cadmium	2.67	0.243	"	2.43	0.306	97.6	75-125	0.600	25
Copper	59.4	0.485	"	48.5	12.3	97.1	75-125	0.471	25
Lead	30.9	0.243	"	24.3	10.2	85.1	75-125	0.978	25
Nickel	63.2	0.485	"	48.5	19.5	90.1	75-125	0.0885	25
Selenium	4.87	0.260	"	4.85	0.591	88.2	75-125	5.89	25
Silver	2.19	0.0243	"	2.43	0.0892	86.5	75-125	1.57	25
Zinc	94.0	0.485	"	48.5	46.0	99.0	75-125	1.04	25

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGC0640 - 3060A Mod

Blank (BGC0640-BLK1)

Prepared & Analyzed: 03/20/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGC0640-BS1)

Prepared & Analyzed: 03/20/23

Chromium, Hexavalent 21.4 0.30 mg/kg wet 25.0 85.4 80-120

Duplicate (BGC0640-DUP1)

Source: 2303333-05

Prepared & Analyzed: 03/20/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGC0640-MS1)

Source: 2303333-05

Prepared & Analyzed: 03/20/23

Chromium, Hexavalent 23.6 0.30 mg/kg dry 26.5 ND 89.0 75-125

Matrix Spike Dup (BGC0640-MSD1)

Source: 2303333-05

Prepared & Analyzed: 03/20/23

Chromium, Hexavalent 24.2 0.30 mg/kg dry 26.5 ND 91.4 75-125 2.66 20

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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 BGC0429 - General Preparation

Blank (BGC0429-BLK1)

Prepared: 03/15/23 Analyzed: 03/17/23

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

LCS (BGC0429-BS1)

Prepared: 03/15/23 Analyzed: 03/17/23

Calcium	5.58	0.0500	mg/L wet	5.00		112	70-130			
Magnesium	5.25	0.0500	"	5.00		105	70-130			
Sodium	4.83	0.0500	"	5.00		96.6	70-130			

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.



Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
 Project Manager: Mike Dinkel

Reported:
 03/21/23 17:04

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 BGC0456 - General Preparation

Duplicate (BGC0456-DUP1)		Source: 2303312-01		Prepared: 03/15/23 Analyzed: 03/16/23			
% Solids	83.8		%		82.9	1.10	20

Batch BGC0486 - General Preparation

Duplicate (BGC0486-DUP1)		Source: 2303333-01		Prepared & Analyzed: 03/16/23			
% Solids	85.1		%		84.5	0.711	20

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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

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

Batch BGC0489 - General Preparation

Blank (BGC0489-BLK1)

Prepared & Analyzed: 03/16/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGC0489-BS1)

Prepared & Analyzed: 03/16/23

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

Duplicate (BGC0489-DUP1)

Source: 2303333-01

Prepared & Analyzed: 03/16/23

Specific Conductance (EC) 0.482 0.0100 mmhos/cm 0.486 0.764 20

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

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 BGC0488 - General Preparation

LCS (BGC0488-BS1)

Prepared & Analyzed: 03/16/23

pH	9.09		pH Units	9.18		99.0	95-105		
----	------	--	----------	------	--	------	--------	--	--

Duplicate (BGC0488-DUP1)

Source: 2303333-01

Prepared & Analyzed: 03/16/23

pH	8.20		pH Units	8.35			1.81	20	
----	------	--	----------	------	--	--	------	----	--

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
03/21/23 17:04

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- QM-02 The RPD and/or percent recovery for this QC sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

April 03, 2023

Mike Dinkel

Civitas Resources

650 Southgate Drive

Windsor, CO 80550

RE: Miller 14-17

Work Order # 2303556

Enclosed are the results of analyses for samples received by Summit Scientific on 03/22/23 17:02. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury

President



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG03@4.5'	2303556-01	Soil	03/21/23 13:40	03/22/23 17:02
BG03@9-10'	2303556-02	Soil	03/21/23 13:50	03/22/23 17:02
BG03@14-15'	2303556-03	Soil	03/21/23 13:55	03/22/23 17:02
BG03@19-20'	2303556-04	Soil	03/21/23 14:00	03/22/23 17:02
BG04@4.5'	2303556-05	Soil	03/21/23 14:10	03/22/23 17:02
BG04@9-10'	2303556-06	Soil	03/21/23 14:20	03/22/23 17:02
BG04@14-15'	2303556-07	Soil	03/21/23 14:30	03/22/23 17:02
BG04@19-20'	2303556-08	Soil	03/21/23 14:40	03/22/23 17:02
BG05@4.5'	2303556-09	Soil	03/21/23 14:50	03/22/23 17:02
BG05@9-10'	2303556-10	Soil	03/21/23 15:00	03/22/23 17:02
BG05@14-15'	2303556-11	Soil	03/21/23 15:10	03/22/23 17:02
BG05@19-20'	2303556-12	Soil	03/21/23 15:20	03/22/23 17:02

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.

S₂

Sample Receipt Checklist

S2 Work Order# 2303556

Client: Civitas Client Project ID: Miller 14-17

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"/>	<u>on Ice</u>
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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"/>	
<u>Additional Comments (if any):</u>				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS
Custodian Printed Name

3/24/23 1702
Date/Time



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG03@4.5'
2303556-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.136	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	1.61	0.209	0.176	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	65.1	0.419	0.331	"	"	"	"	"	"	
Cadmium	0.0812	0.209	0.00754	"	"	"	"	"	"	
Copper	3.65	0.419	0.0219	"	"	"	"	"	"	
Lead	4.23	0.209	0.0575	"	"	"	"	"	"	
Nickel	4.31	0.419	0.0639	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0239	0.0209	0.00279	"	"	"	"	"	"	
Zinc	13.3	0.419	0.278	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	26.3	0.0523		mg/L dry	1	BGC0912	03/27/23	03/28/23	EPA 6020B	
Magnesium	4.46	0.0523		"	"	"	"	"	"	
Sodium	26.3	0.0523		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG03@4.5'
2303556-01 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	1.25	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	95.5			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.292	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.64			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG03@9-10'
2303556-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.103	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	5.01	0.225	0.190	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	124	0.450	0.356	"	"	"	"	"	"	"
Cadmium	0.257	0.225	0.00811	"	"	"	"	"	"	"
Copper	6.28	0.450	0.0235	"	"	"	"	"	"	"
Lead	8.61	0.225	0.0619	"	"	"	"	"	"	"
Nickel	7.36	0.450	0.0687	"	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"	"	"
Silver	0.0203	0.0225	0.00301	"	"	"	"	"	"	"
Zinc	22.6	0.450	0.300	"	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	29.0	0.0563		mg/L dry	1	BGC0912	03/27/23	03/28/23	EPA 6020B	
Magnesium	16.9	0.0563		"	"	"	"	"	"	"
Sodium	57.9	0.0563		"	"	"	"	"	"	"

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG03@9-10'
2303556-02 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 13:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.11	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 13:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.8			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 13:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.592	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 13:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.05			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG03@14-15'
2303556-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 13:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.230	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 13:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	3.29	0.226	0.190	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	70.7	0.451	0.356	"	"	"	"	"	"	
Cadmium	0.145	0.226	0.00812	"	"	"	"	"	"	
Copper	5.38	0.451	0.0236	"	"	"	"	"	"	
Lead	6.17	0.226	0.0620	"	"	"	"	"	"	
Nickel	5.36	0.451	0.0688	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0108	0.0226	0.00301	"	"	"	"	"	"	
Zinc	18.2	0.451	0.300	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 13:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 13:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	28.5	0.0564		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	15.0	0.0564		"	"	"	"	"	"	
Sodium	66.1	0.0564		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG03@14-15'
2303556-03 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 13:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.49	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 13:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.7			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 13:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.653	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 13:55**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.30			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG03@19-20'
2303556-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.301	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	3.64	0.231	0.194	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	49.5	0.461	0.365	"	"	"	"	"	"	
Cadmium	0.147	0.231	0.00831	"	"	"	"	"	"	
Copper	7.99	0.461	0.0241	"	"	"	"	"	"	
Lead	13.6	0.231	0.0634	"	"	"	"	"	"	
Nickel	3.01	0.461	0.0704	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0300	0.0231	0.00308	"	"	"	"	"	"	
Zinc	20.1	0.461	0.307	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	16.8	0.0577		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	8.73	0.0577		"	"	"	"	"	"	
Sodium	58.8	0.0577		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG03@19-20'
2303556-04 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.90	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.7			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.469	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.20			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG04@4.5'
2303556-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.120	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	2.56	0.210	0.177	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	71.5	0.420	0.332	"	"	"	"	"	"	"
Cadmium	0.135	0.210	0.00756	"	"	"	"	"	"	"
Copper	4.63	0.420	0.0219	"	"	"	"	"	"	"
Lead	11.9	0.210	0.0577	"	"	"	"	"	"	"
Nickel	5.17	0.420	0.0640	"	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"	"	"
Silver	0.0256	0.0210	0.00280	"	"	"	"	"	"	"
Zinc	28.4	0.420	0.279	"	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	33.9	0.0525		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	9.05	0.0525		"	"	"	"	"	"	"
Sodium	2.97	0.0525		"	"	"	"	"	"	"

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG04@4.5'
2303556-05 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.117	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.2			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.319	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.83			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG04@9-10'
2303556-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.152	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	3.11	0.215	0.181	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	33.0	0.429	0.339	"	"	"	"	"	"	
Cadmium	0.116	0.215	0.00773	"	"	"	"	"	"	
Copper	4.32	0.429	0.0224	"	"	"	"	"	"	
Lead	ND	0.215	0.0590	"	"	"	"	"	"	
Nickel	4.42	0.429	0.0655	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.00816	0.0215	0.00287	"	"	"	"	"	"	
Zinc	16.6	0.429	0.286	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	15.5	0.0537		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	7.19	0.0537		"	"	"	"	"	"	
Sodium	32.9	0.0537		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG04@9-10'
2303556-06 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 14:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.74	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 14:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.2			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 14:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.318	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 14:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG04@14-15'
2303556-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.173	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	2.72	0.219	0.184	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	37.8	0.437	0.345	"	"	"	"	"	"	
Cadmium	0.0748	0.219	0.00787	"	"	"	"	"	"	
Copper	4.99	0.437	0.0228	"	"	"	"	"	"	
Lead	6.91	0.219	0.0601	"	"	"	"	"	"	
Nickel	7.53	0.437	0.0667	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0131	0.0219	0.00292	"	"	"	"	"	"	
Zinc	18.7	0.437	0.291	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	20.8	0.0547		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	6.78	0.0547		"	"	"	"	"	"	
Sodium	35.6	0.0547		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG04@14-15'
2303556-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.73	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.5			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.255	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.60			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG04@19-20'
2303556-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.296	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	29.5	0.235	0.198	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	44.0	0.470	0.372	"	"	"	"	"	"	
Cadmium	0.352	0.235	0.00847	"	"	"	"	"	"	
Copper	18.2	0.470	0.0246	"	"	"	"	"	"	
Lead	ND	0.235	0.0646	"	"	"	"	"	"	
Nickel	4.15	0.470	0.0717	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0612	0.0235	0.00314	"	"	"	"	"	"	
Zinc	23.7	0.470	0.313	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	95.3	0.0588		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	23.5	0.0588		"	"	"	"	"	"	
Sodium	27.1	0.0588		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG04@19-20'
2303556-08 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 14:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.645	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 14:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.0			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 14:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.382	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 14:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG05@4.5'
2303556-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 14:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0798	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 14:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	2.70	0.211	0.178	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	79.2	0.422	0.333	"	"	"	"	"	"	"
Cadmium	0.178	0.211	0.00759	"	"	"	"	"	"	"
Copper	5.30	0.422	0.0220	"	"	"	"	"	"	"
Lead	8.25	0.211	0.0579	"	"	"	"	"	"	"
Nickel	5.56	0.422	0.0643	"	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"	"	"
Silver	0.0325	0.0211	0.00282	"	"	"	"	"	"	"
Zinc	19.8	0.422	0.280	"	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 14:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 14:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	34.2	0.0527		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	8.54	0.0527		"	"	"	"	"	"	"
Sodium	43.0	0.0527		"	"	"	"	"	"	"

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG05@4.5'
2303556-09 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 14:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	1.71	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 14:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	94.8			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 14:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.532	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 14:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.91			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG05@9-10'
2303556-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0779	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	4.16	0.220	0.186	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	429	0.441	0.348	"	"	"	"	"	"	
Cadmium	0.207	0.220	0.00793	"	"	"	"	"	"	
Copper	5.27	0.441	0.0230	"	"	"	"	"	"	
Lead	7.52	0.220	0.0606	"	"	"	"	"	"	
Nickel	6.22	0.441	0.0672	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0137	0.0220	0.00294	"	"	"	"	"	"	
Zinc	20.9	0.441	0.293	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	33.0	0.0551		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	17.8	0.0551		"	"	"	"	"	"	
Sodium	58.8	0.0551		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG05@9-10'
2303556-10 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	2.05	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	90.8			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.683	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.99			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG05@14-15'
2303556-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.113	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	4.85	0.227	0.192	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	348	0.455	0.359	"	"	"	"	"	"	"
Cadmium	0.245	0.227	0.00819	"	"	"	"	"	"	"
Copper	5.65	0.455	0.0238	"	"	"	"	"	"	"
Lead	8.41	0.227	0.0625	"	"	"	"	"	"	"
Nickel	6.59	0.455	0.0694	"	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"	"	"
Silver	0.0150	0.0227	0.00304	"	"	"	"	"	"	"
Zinc	22.4	0.455	0.302	"	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	41.3	0.0568		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	21.5	0.0568		"	"	"	"	"	"	"
Sodium	70.8	0.0568		"	"	"	"	"	"	"

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG05@14-15'
2303556-11 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 15:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.23	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 15:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.0			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 15:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.829	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 15:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.91			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG05@19-20'
2303556-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/21/23 15:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.347	0.0100		mg/L	1	BGC0937	03/27/23	03/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/21/23 15:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	0.727	0.235	0.198	mg/kg dry	1	BGC0929	03/27/23	03/31/23	EPA 6020B	
Barium	33.6	0.470	0.371	"	"	"	"	"	"	
Cadmium	0.175	0.235	0.00845	"	"	"	"	"	"	
Copper	8.03	0.470	0.0245	"	"	"	"	"	"	
Lead	19.0	0.235	0.0645	"	"	"	"	"	"	
Nickel	1.40	0.470	0.0716	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	0.0662	0.0235	0.00313	"	"	"	"	"	"	
Zinc	2.48	0.470	0.312	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/21/23 15:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGC0901	03/27/23	03/27/23	EPA 7196A	

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

Date Sampled: **03/21/23 15:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	35.1	0.0587		mg/L dry	1	BGC0912	03/27/23	03/29/23	EPA 6020B	
Magnesium	16.3	0.0587		"	"	"	"	"	"	
Sodium	32.0	0.0587		"	"	"	"	"	"	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

BG05@19-20'
2303556-12 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **03/21/23 15:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.12	0.00100		units	1	BGC0976	03/29/23	03/29/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/23 15:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.2			%	1	BGC0903	03/27/23	03/28/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/21/23 15:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.291	0.0100		mmhos/cm	1	BGC0958	03/28/23	03/28/23	EPA 120.1	

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

Date Sampled: **03/21/23 15:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.45			pH Units	1	BGC0957	03/28/23	03/28/23	EPA 9045D	

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

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 BGC0937 - EPA 3050B

Blank (BGC0937-BLK1)

Prepared: 03/27/23 Analyzed: 03/29/23

Boron ND 0.0100 mg/L

LCS (BGC0937-BS1)

Prepared: 03/27/23 Analyzed: 03/29/23

Boron 5.98 0.0100 mg/L 5.00 120 80-120

Duplicate (BGC0937-DUP1)

Source: 2303540-01

Prepared: 03/27/23 Analyzed: 03/29/23

Boron 0.249 0.0100 mg/L 0.237 5.12 20

Matrix Spike (BGC0937-MS1)

Source: 2303540-01

Prepared: 03/27/23 Analyzed: 03/29/23

Boron 6.09 0.0100 mg/L 5.00 0.237 117 75-125

Matrix Spike Dup (BGC0937-MSD1)

Source: 2303540-01

Prepared: 03/27/23 Analyzed: 03/29/23

Boron 6.14 0.0100 mg/L 5.00 0.237 118 75-125 0.785 25

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGC0929 - EPA 3050B

Blank (BGC0929-BLK1)

Prepared: 03/27/23 Analyzed: 03/31/23

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Selenium	ND	0.260	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							

LCS (BGC0929-BS1)

Prepared: 03/27/23 Analyzed: 03/31/23

Arsenic	41.0	0.200	mg/kg wet	40.0	103	80-120
Barium	40.0	0.400	"	40.0	100	80-120
Cadmium	1.94	0.200	"	2.00	97.1	80-120
Copper	39.0	0.400	"	40.0	97.4	80-120
Lead	19.3	0.200	"	20.0	96.4	80-120
Nickel	37.3	0.400	"	40.0	93.3	80-120
Selenium	4.10	0.260	"	4.00	103	80-120
Silver	1.95	0.0200	"	2.00	97.5	80-120
Zinc	37.1	0.400	"	40.0	92.7	80-120

Duplicate (BGC0929-DUP1)

Source: 2303556-01

Prepared: 03/27/23 Analyzed: 03/31/23

Arsenic	1.62	0.209	mg/kg dry	1.61	0.569	20
Barium	66.1	0.419	"	65.1	1.41	20
Cadmium	0.0854	0.209	"	0.0812	5.03	20
Copper	3.70	0.419	"	3.65	1.24	20
Lead	4.29	0.209	"	4.23	1.33	20
Nickel	4.37	0.419	"	4.31	1.52	20
Selenium	ND	0.260	"	ND		20
Silver	0.0239	0.0209	"	0.0239	0.00	20
Zinc	13.4	0.419	"	13.3	0.710	20

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGC0929 - EPA 3050B

Matrix Spike (BGC0929-MS1)

Source: 2303556-01

Prepared: 03/27/23 Analyzed: 03/31/23

Arsenic	45.1	0.209	mg/kg dry	41.9	1.61	104	75-125			
Barium	115	0.419	"	41.9	65.1	120	75-125			
Cadmium	2.19	0.209	"	2.09	0.0812	101	75-125			
Copper	32.7	0.419	"	41.9	3.65	69.3	75-125			QM-07
Lead	25.5	0.209	"	20.9	4.23	101	75-125			
Nickel	32.6	0.419	"	41.9	4.31	67.5	75-125			QM-07
Selenium	4.75	0.260	"	4.19	ND	114	75-125			
Silver	2.04	0.0209	"	2.09	0.0239	96.3	75-125			
Zinc	43.4	0.419	"	41.9	13.3	72.0	75-125			QM-07

Matrix Spike Dup (BGC0929-MSD1)

Source: 2303556-01

Prepared: 03/27/23 Analyzed: 03/31/23

Arsenic	44.6	0.209	mg/kg dry	41.9	1.61	103	75-125	1.06	25	
Barium	114	0.419	"	41.9	65.1	116	75-125	1.20	25	
Cadmium	2.20	0.209	"	2.09	0.0812	101	75-125	0.476	25	
Copper	32.8	0.419	"	41.9	3.65	69.6	75-125	0.462	25	QM-07
Lead	ND	0.209	"	20.9	4.23	NR	75-125	200	25	QM-07
Nickel	32.6	0.419	"	41.9	4.31	67.6	75-125	0.215	25	QM-07
Selenium	4.89	0.260	"	4.19	ND	117	75-125	2.90	25	
Silver	2.04	0.0209	"	2.09	0.0239	96.4	75-125	0.103	25	
Zinc	43.8	0.419	"	41.9	13.3	73.0	75-125	0.924	25	QM-07

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.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGC0901 - 3060A Mod

Blank (BGC0901-BLK1)

Prepared & Analyzed: 03/27/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGC0901-BS1)

Prepared & Analyzed: 03/27/23

Chromium, Hexavalent 25.3 0.30 mg/kg wet 25.0 101 80-120

Duplicate (BGC0901-DUP1)

Source: 2303552-01

Prepared & Analyzed: 03/27/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGC0901-MS1)

Source: 2303552-01

Prepared & Analyzed: 03/27/23

Chromium, Hexavalent 33.1 0.30 mg/kg dry 33.9 ND 97.8 75-125

Matrix Spike Dup (BGC0901-MSD1)

Source: 2303552-01

Prepared & Analyzed: 03/27/23

Chromium, Hexavalent 33.3 0.30 mg/kg dry 33.9 ND 98.4 75-125 0.612 20

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

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 BGC0912 - General Preparation

Blank (BGC0912-BLK1)

Prepared: 03/27/23 Analyzed: 03/28/23

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

LCS (BGC0912-BS1)

Prepared: 03/27/23 Analyzed: 03/28/23

Calcium	4.88	0.0500	mg/L wet	5.00	97.7	70-130				
Magnesium	4.70	0.0500	"	5.00	93.9	70-130				
Sodium	4.87	0.0500	"	5.00	97.3	70-130				

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.



Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
 Project Manager: Mike Dinkel

Reported:
 04/03/23 13:31

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 BGC0903 - General Preparation

Duplicate (BGC0903-DUP1)		Source: 2303539-01		Prepared: 03/27/23 Analyzed: 03/28/23	
% Solids	71.9	%		73.1	1.70 20

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

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

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

Batch BGC0958 - General Preparation

Blank (BGC0958-BLK1)

Prepared & Analyzed: 03/28/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGC0958-BS1)

Prepared & Analyzed: 03/28/23

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

Duplicate (BGC0958-DUP1)

Source: 2303556-01

Prepared & Analyzed: 03/28/23

Specific Conductance (EC) 0.287 0.0100 mmhos/cm 0.292 1.90 20

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.





Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
 Project Manager: Mike Dinkel

Reported:
 04/03/23 13:31

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 BGC0957 - General Preparation

LCS (BGC0957-BS1)

Prepared & Analyzed: 03/28/23

pH	9.14		pH Units	9.18	99.6	95-105
----	------	--	----------	------	------	--------

Duplicate (BGC0957-DUP1)

Source: 2303556-01

Prepared & Analyzed: 03/28/23

pH	8.65		pH Units	8.64	0.116	20
----	------	--	----------	------	-------	----

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.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Miller 14-17

Project Number: [none]
Project Manager: Mike Dinkel

Reported:
04/03/23 13:31

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference