

**Citation Oil Gas Corp.
Arpahoe Unit 178
Soil Sample Results Summary Table - VOCs
Attachment C - Analytical Summary**

Soil Sample Location	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
ECMC standards for soil (mg/kg) ⁽¹⁾		0.0026	0.69	0.78	9.9	500			0.0081	0.0087
ECMC standards for soil (mg/kg) ⁽²⁾		1.2	490	5.8	58	500			30	27
AU_178_WHB3@2'	11/11/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_178_WHB3@5'	11/11/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_178_WHB_E@2'R	12/16/2025	ND	ND	ND	ND	ND	NA	NA	ND	ND
AU_178_WHB_N@2'R	12/16/2025	ND	ND	ND	ND	ND	NA	NA	ND	ND
AU_178_WHB_W@18'	12/16/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_178_WHB_W@20'	12/16/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

VOCs = Volatile organic compounds

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

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

ECMC = Colorado Energy and Carbon Management Commission

mg/kg = Milligrams per kilogram

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

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

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

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

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

ND = Non-detect

NA = Not analyzed

**Citation Oil Gas Corp.
Arpahoe Unit 178
Soil Sample Results Summary Table - PAHs
Attachment C - Analytical Summary**

Soil Sample Location	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)
ECMC standards for soil (mg/kg) ⁽¹⁾		0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	8.9	0.54	0.98	0.006	0.019	0.0038	1.3
ECMC standards for soil (mg/kg) ⁽²⁾		360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	2	180
AU_178_WHB_W@18'	12/16/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_178_WHB_W@20'	12/16/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

PAHs = Polycyclic aromatic hydrocarbons

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

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

ECMC = Colorado Energy and Carbon Management Commission

mg/kg = Milligrams per kilogram

Benzo(a)A = Benzo(a)anthracene

Benzo(b)F = Benzo(b)fluoranthene

Benzo(k)F = Benzo(k)fluoranthene

Benzo(a)P = Benzo(a)pyrene

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

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

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

ND = Non-detect

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Arpahoe Unit 178
Soil Sample Results Summary Table - Metals
Attachment C - Analytical Summary

Soil Sample Location	Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC standards for soil (mg/kg) ⁽¹⁾		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
ECMC standards for soil (mg/kg) ⁽²⁾		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Site-Specific Background Limits (x 1.25)		5.93	-	-	-	-	-	-	-	-	-
AU_178_WHB_N@2'R	12/16/2025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AU_178_WHB_W@18'	12/16/2025	4.92	217.41	0.18	ND	10.79	9.48	10.07	2.94	ND	40.68
AU_178_WHB_W@20'	12/16/2025	5.16	197.74	0.20	ND	11.61	10.28	10.31	3.11	ND	43.52
Background Soil Samples											
AU_178_WH_BG@5'	9/15/2025	4.45	NA	NA	NA	NA	NA	NA	NA	NA	NA
AU_178_WH_BG02@5'	11/11/2025	4.39	NA	NA	NA	NA	NA	NA	NA	NA	NA
AU_178_WH_BG02@10'	11/11/2025	4.75	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

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

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

ft. bgs = Feet below ground surface

ECMC = Colorado Energy and Carbon Management Commission

mg/kg = Milligrams per kilogram

- = Site specific background limit is not present or does not exceed relevant ECMC Table 915-1 standard

BOLD = Analytical result is in exceedance of ECMC Table 915-1 soil standard, but was within the site-specific background concentration

NA = Not analyzed

ND = Non-detect

Citation Oil Gas Corp.
Arpahoe Unit 178
Soil Sample Results Summary Table - Soil Suitability for Reclamation
Attachment C - Analytical Summary

Soil Sample Location	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC standards for soil ⁽¹⁾		6 - 8.3	<6	<4	2
Site-Specific Background Limits		8.60	6.33	-	-
AU_178_WH_B01@6'	8/21/2025	9.07	10.38	1.09	0.20
AU_178_WH_Riser@4'	8/21/2025	8.51	1.49	0.46	0.11
AU_178_WH_RISER@8'	9/15/2025	8.62	6.44	0.58	0.33
AU_178_WH_RISER@14'	9/15/2025	8.61	4.07	0.54	0.58
AU_178_WH_B01@10'	9/15/2025	9.83	47.29	1.41	0.54
AU_178_WH_B01@14'	9/15/2025	8.75	8.55	0.85	0.68
AU_178_WH_TBRISER@4'	9/15/2025	8.27	0.65	0.40	0.19
AU_178_WH_B01@18'	10/23/2025	8.33	3.17	0.89	0.69
AU_178_WH_B01@20'	10/23/2025	8.20	4.80	1.26	0.62
AU_178_WHB_N@2'	10/23/2025	8.12	3.37	0.86	0.18
AU_178_WHB_N@5'	10/23/2025	8.18	7.09	1.05	NA
AU_178_WHB_E@2'	10/23/2025	8.11	0.14	0.45	0.13
AU_178_WHB_E@5'	10/23/2025	8.18	0.22	0.46	0.14
AU_178_WHB_W@2'	10/23/2025	8.53	7.29	0.66	NA
AU_178_WHB_W@5'	10/23/2025	8.44	8.56	0.84	NA
AU_178_WHB_W@10'	11/11/2025	8.48	7.90	0.77	NA
AU_178_WHB_W@14'	11/11/2025	8.30	7.37	1.15	NA
AU_178_WHB1@2'	11/11/2025	8.04	1.43	0.96	0.15
AU_178_WHB1@5'	11/11/2025	8.22	2.54	0.86	0.16
AU_178_WHB2@2'	11/11/2025	8.27	2.14	0.74	0.16
AU_178_WHB2@5'	11/11/2025	8.35	4.15	0.78	0.33
AU_178_WHB3@2'	11/11/2025	8.17	0.61	0.36	0.09
AU_178_WHB3@5'	11/11/2025	8.46	4.39	0.53	0.20
AU_178_WHB_E@2'R	12/16/2025	NA	NA	NA	NA
AU_178_WHB_N@2'R	12/16/2025	NA	NA	NA	NA
AU_178_WHB_W@18'	12/16/2025	8.06	4.52	1.57	0.38
AU_178_WHB_W@20'	12/16/2025	8.14	3.95	1.56	0.37
Background Soil Samples					
AU_178_WH_BG@5'	9/15/2025	8.60	6.33	0.68	0.27

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Arpahoe Unit 178
Soil Sample Results Summary Table - Soil Suitability for Reclamation
Attachment C - Analytical Summary

Soil Sample Location	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC standards for soil ⁽¹⁾		6 - 8.3	<6	<4	2
Site-Specific Background Limits		8.60	6.33	-	-
AU_178_WH_BG02@5'	11/11/2025	8.28	3.59	0.66	0.44
AU_178_WH_BG02@10'	11/11/2025	8.12	3.83	1.13	0.23

Notes:

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

ECMC = Colorado Energy and Carbon Management Commission

ft. bgs = Feet below ground surface

mmhos/cm = Millimhos per centimeter

mg/L = Milligrams per liter

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

- = Site specific background limit is not present or does not exceed relevant ECMC Table 915-1 standard

NA = Not analyzed

ND = Non-detect

Concentration in red font exceeds the Table 915-1 soil standard

BOLD = Analytical result is in exceedance of ECMC Table 915-1 soil standard, but was within the site-specific background concentration

Gray highlight = Soil sample location has been over-excavated