

Soil Analytical Data Summary Table

Citation Oil & Gas Corp.  
Arapahoe Unit Sec. 25S Tank Battery Soil Sampling  
Cheyenne County, Colorado

Sample ID	Sample Depth (Inches)	Date Sampled	Concentration (mg/kg)											EC (mmhos/cm)	Unitless	
			Benzene	Toluene	Ethylbenzene	Xylenes (Total)	1,2,4 Trimethyl- benzene	1,3,5 Trimethyl- benzene	Naphthalene	GRO	DRO	ORO	TPH		SAR	pH
COGCC Table 915-1 Concentration Levels (RSSL)			1.2	490	5.8	58	30	27	2	NA	NA	NA	500	<4	<6	6-8.3
Soil Samples																
AU_SS_01	36	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.917	0.614	7.92
AU_SS_02	96	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.69	4.11	7.75
AU_SS_03	48	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.74	16.2	7.77
AU_SS_04	48	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	63	ND	63	1.54	20.3	8.42
AU_SS_05_SW	36	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.18	8.71	7.72
AU_SS_06_SW	36	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.14	9.81	7.88
AU_SS_07_SW	72	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.378	0.846	8.09
AU_25_BG_BH_01_4	48	12/1/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.252	0.158	8.10
AU_25_BG_BH_01_6	72	12/1/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.230	0.105	7.90

Sample ID	Sample Depth (Inches)	Date Sampled	PAH Concentration (mg/kg)													
			Acenaphthene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b)fluoranthene	Benzo (k)fluoranthene	Chrysene	Dibenz (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3- cd) pyrene	Pyrene	1- Methylnapthal ene	2- Methylnapthal ene
COGCC Table 915-1 Concentration Levels (RSSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Soil Samples																
AU_SS_01	36	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_SS_02	96	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_SS_03	48	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_SS_04	48	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_SS_05_SW	36	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_SS_06_SW	36	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_SS_07_SW	72	11/11/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AU_25_BG_BH_01_4	48	12/1/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AU_25_BG_BH_01_6	72	12/1/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Sample ID	Sample Depth (Inches)	Date Sampled	Total Metals mg/kg											mg/L
			Arsenic	Barium	Cadmium	Copper	Lead	Nickel	Selenium	Silver	Zinc	Chromium (Hexavalent)	Boron - Hot Water Soluble	
COGCC Table 915-1 Concentration Levels (RSSL)			0.68	15000	71.00	3100	400	1500	390	390	23000	0.3	2	
Soil Samples														
AU_SS_01	36	11/11/2021	6.04	249.0	0.276	10.80	9.5	12.4	1.480	0.0656	36.2	ND	ND	
AU_SS_02	96	11/11/2021	3.04	177.0	ND	7.70	7.0	8.7	1.180	0.0430	28.4	ND	ND	
AU_SS_03	48	11/11/2021	4.26	192.0	ND	8.94	8.0	10.4	1.300	0.0542	33.4	ND	ND	
AU_SS_04	48	11/11/2021	3.87	197.0	ND	8.13	7.2	9.5	1.190	0.0484	29.8	ND	ND	
AU_SS_05_SW	36	11/11/2021	4.14	185.0	ND	9.17	8.2	10.0	1.310	0.0523	32.6	ND	ND	
AU_SS_06_SW	36	11/11/2021	5.87	215.0	0.276	11.60	9.5	12.2	1.530	0.0682	37.9	ND	ND	
AU_SS_07_SW	72	11/11/2021	3.08	166.0	ND	6.74	6.0	7.7	0.955	0.0374	25.6	ND	ND	
AU_25_BG_BH_01_4	48	12/1/2021	4.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
AU_25_BG_BH_01_6	72	12/1/2021	3.57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

ND - Analytical result is not detectedabove the reporting limit

COGCC - Colorado Oil and Gas Conservation Commission

GRO - Gasoline Range Organics

DRO - Diesel Range Organics (C10-C28)

TPH - Total Petroleum Hydrocarbons (Combined GRO/DRO)

ORO - Oil Range Organics (C28-C36)

SAR - Sodium Adsorption Ratio

NA - Not Analyzed

BGS - Below Ground Surface

EC - Electrical Conductivity

RSSL = Residential Soil Screening Level