

Soil Analytical Data Summary Table

Citation Oil & Gas Corp.
MPU PW Flow-Line Leak Soil Sampling
Cheyenne County, Colorado

Sample ID	Sample Depth (Feet)	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																
MPU_SS_01@2'	2	4/12/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	43.2	56.3	7.32
MPU_SS_02@2'	2	4/12/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	41.7	59.2	7.41
MPU_SS_03@2'	2	4/12/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	28.5	39.0	7.73
MPU_SS_04@2'	2	4/12/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47.6	64.2	7.38
MPU_SS_05@3'	3	4/12/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.3	24.9	7.41
MPU_BG_SS_01@2'	2	4/12/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.8	NA

Sample ID	Sample Depth (Feet)	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-Methylnaphthalene	2-Methylnaphthalene
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																
MPU_SS_01@2'	2	4/12/2022	0.00718	0.00213	ND	ND	0.0035	ND	0.0198	ND	0.00212	0.038	ND	0.0109	0.0509	0.0367
MPU_SS_02@2'	2	4/12/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MPU_SS_03@2'	2	4/12/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MPU_SS_04@2'	2	4/12/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MPU_SS_05@3'	3	4/12/2022	ND	ND	0.000936	0.000919	0.00235	0.00215	0.00148	0.00302	0.000493	ND	0.00319	ND	ND	ND
MPU_BG_SS_01@2'	2	4/12/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Sample ID	Sample Depth (Feet)	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														
MPU_SS_01@2'	2	4/12/2022	3.71	197	0.139	41.1	11.1	18.4	0.528	0.0323	60.3	ND	8.09	
MPU_SS_02@2'	2	4/12/2022	4.57	112	0.149	14.2	9.81	17.3	0.53	0.0358	58.5	ND	6.42	
MPU_SS_03@2'	2	4/12/2022	3.49	258	0.193	14.1	11.9	19.1	0.648	0.0306	60.7	ND	5.71	
MPU_SS_04@2'	2	4/12/2022	4.13	155	0.133	13.4	9.5	14.8	0.521	0.0331	54.4	ND	9.53	
MPU_SS_05@3'	3	4/12/2022	3.51	210	0.203	15.9	13.2	20.9	0.714	0.0236	67.6	ND	10.3	
MPU_BG_SS_01@2'	2	4/12/2022	5.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.38	

mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter

ND - Analytical result is not detected above 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