

Table 1
Soil Sampling Results
Margaret Spaulding (OWP) #4-B
Lone Pine Well Plugging Project
Colorado Oil & Gas Conservation Commission

Parameter	SS01 09/01/2021	SS02 09/01/2021	SS01 Background 07/28/2021	COGCC Table 915-1 Standard	Units
Sample Location	Wellhead	Flowline	Background	NA	NA
Latitude/Longitude	40.71841, -106.4988	40.71843, -106.4988	40.71514, -106.4963	NA	NA
Laboratory ID	2109053-01	2109053-02	2107315-01	NA	NA
Depth	7	7.5	0-0.66	NA	feet bgs
PID	176.6	694.8	0.0	NA	ppm
Conductivity	0.902	0.723	0.286	<4	mmhos/cm
pH	7.99	7.75	5.60	6-8.3	pH units
SAR	4.50	1.49	0.16	<6	no units
Calcium	41.4	62.5	36.4	NA	mg/L
Magnesium	7.03	13.7	10.3	NA	mg/L
Sodium	119	49.9	4.22	NA	mg/L
Arsenic	5.97	4.22	2.04	0.68	mg/kg
Barium	252	151	146	15000	mg/kg
Cadmium	<5.00	<5.00	<5.00	71	mg/kg
Chromium (VI)***	<0.250	<0.250	Not Analyzed	0.3	mg/kg
Total Chromium	18.8	16.7	25.0	NA	mg/kg
Copper	24.7	18.1	27.5	3100	mg/kg
Lead	21.9	<10.0	<10.0	400	mg/kg
Nickel	15.1	11.5	13.0	1500	mg/kg
Selenium	<20.0	<20.0	<20.0	390	mg/kg
Silver	<1.00	<1.00	<1.00	390	mg/kg
Zinc	59.7	38.7	64.8	23000	mg/kg
Boron	1.32	<1.20	<1.20	2	mg/L
TPH (GRO)	830	1140	<10.0	NA	mg/kg
TPH (DRO)	8960	9390	<10.0	NA	mg/kg
TPH (EXT DRO)	2150	2450	<10.0	NA	mg/kg
Total TPH	11940	12980	<30.0	500	mg/kg
Benzene	<0.100	<0.100	<0.0250	1.2	mg/kg
Toluene	<0.100	<0.100	<0.0250	490	mg/kg
Ethylbenzene	0.517	0.244	<0.0250	5.8	mg/kg
Total Xylenes	<0.300	<0.300	<0.0250	58	mg/kg
1,3,5-trimethylbenzene	<0.100	<0.100	<0.0250	27	mg/kg
1,2,4-trimethylbenzene	<0.100	<0.100	<0.0250	30	mg/kg
Naphthalene	6.92	3.77	<0.0250	2	mg/kg
2-methylnaphthalene	13.5	10.6	<0.023	24	mg/kg
1-methylnaphthalene	11.3	13.6	<0.016	18	mg/kg
Acenaphthene	0.392	<0.235	<0.024	360	mg/kg
Fluorene	2.55	3.46	<0.014	240	mg/kg
Anthracene	0.751	<0.172	<0.017	1800	mg/kg
Fluoranthene	0.336	0.399	<0.019	240	mg/kg
Pyrene	0.912	1.13	<0.013	180	mg/kg
Benzo(a)anthracene	<0.230	<0.230	<0.023	1.1	mg/kg
Chrysene	1.27	1.64	<0.017	110	mg/kg
Benzo(b)fluoranthene	0.282	0.414	<0.019	1.1	mg/kg
Benzo(k)fluoranthene	<0.157	<0.157	<0.016	11	mg/kg
Benzo(a)pyrene	<0.182*	<0.182*	<0.018	0.11	mg/kg
Indeno(1,2,3-cd)pyrene	<0.168	<0.168	<0.017	1.1	mg/kg
Dibenz(a,h)anthracene	<0.186*	<0.186*	<0.019	0.11	mg/kg

Notes:

PID - Photoionization Detector
SAR - Sodium Adsorption Ratio
BTEX - Benzene, Toluene, Ethylbenzene, & Total Xylenes
TPH - Total Petroleum Hydrocarbons
GRO - Gasoline Range Organics
DRO - Diesel Range Organics
EXT - Extended
NA - Not Applicable
ppm - parts per million
bgs - below ground surface
mmhos/cm - millihos per centimeter

mg/L - milligrams per liter
mg/kg - milligrams per kilogram
COGCC - Colorado Oil & Gas Conservation Commission

* - Laboratory detection limit exceeds COGCC Standard

** - Value detected below the reporting limit; result is an estimate.

Bold values exceed COGCC Standard

Values reported below the laboratory detection limit are considered zero in Total TPH calculations.

***Laboratory could only analyze for Total Chromium (not Chromium (IV)) prior to September 2021.