

**Table 1**  
**Soil Sampling Results**  
**Margaret Spaulding (OWP) #6-A**  
**Lone Pine Well Plugging Project**  
**Colorado Oil & Gas Conservation Commission**

Parameter	SS01 07/28/2021	SS02 07/28/2021	SS01 Background 07/28/2021	COGCC Table 915-1 Standard	Units
Sample Location	Wellhead	Flowline	Background	NA	NA
Latitude/Longitude	40.71558, -106.492	40.7157, -106.4916	40.71514, -106.4963	NA	NA
Laboratory ID	2107313-01	2107313-02	2107315-01	NA	NA
Depth	4.5	4	0-0.66	NA	feet bgs
PID	-	0.6	0.0	NA	ppm
Conductivity	0.610	0.305	0.286	<4	mmhos/cm
pH	6.95	7.14	<b>5.60</b>	6-8.3	pH units
SAR	0.73	0.15	0.16	<6	no units
Calcium	69.6	42.7	36.4	NA	mg/L
Magnesium	12.7	12.0	10.3	NA	mg/L
Sodium	25.2	4.22	4.22	NA	mg/L
Arsenic	<b>1.50</b>	<b>1.47</b>	<b>2.04</b>	0.68	mg/kg
Barium	150	96.1	146	15000	mg/kg
Cadmium	<5.00	<5.00	<5.00	71	mg/kg
Chromium (VI)***	Not Analyzed	Not Analyzed	Not Analyzed	0.3	mg/kg
Total Chromium	25.8	34.2	25.0	NA	mg/kg
Copper	35.3	37.2	27.5	3100	mg/kg
Lead	105	<10.0	<10.0	400	mg/kg
Nickel	14.8	16.0	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	91.1	65.4	64.8	23000	mg/kg
Boron	<1.20	<1.20	<1.20	2	mg/L
TPH (GRO)	793	<10.0	<10.0	NA	mg/kg
TPH (DRO)	14100	<10.0	<10.0	NA	mg/kg
TPH (EXT DRO)	4780	<10.0	<10.0	NA	mg/kg
Total TPH	<b>19673</b>	<30.0	<30.0	500	mg/kg
Benzene	<0.0250	<0.0250	<0.0250	1.2	mg/kg
Toluene	<0.0250	<0.0250	<0.0250	490	mg/kg
Ethylbenzene	<0.0250	<0.0250	<0.0250	5.8	mg/kg
Total Xylenes	0.431	<0.0250	<0.0250	58	mg/kg
1,3,5-trimethylbenzene	2.18	<0.0250	<0.0250	27	mg/kg
1,2,4-trimethylbenzene	0.150	<0.0250	<0.0250	30	mg/kg
Naphthalene	1.44	0.0256	<0.0250	2	mg/kg
2-methylnaphthalene	<2.26	<0.023	<0.023	24	mg/kg
1-methylnaphthalene	3.91	<0.016	<0.016	18	mg/kg
Acenaphthene	<2.35	<0.024	<0.024	360	mg/kg
Fluorene	3.20	<0.014	<0.014	240	mg/kg
Anthracene	<1.72	<0.017	<0.017	1800	mg/kg
Fluoranthene	<1.85	<0.019	<0.019	240	mg/kg
Pyrene	3.91	<0.013	<0.013	180	mg/kg
Benzo(a)anthracene	<2.30*	<0.023	<0.023	1.1	mg/kg
Chrysene	4.89	<0.017	<0.017	110	mg/kg
Benzo(b)fluoranthene	<1.92*	<0.019	<0.019	1.1	mg/kg
Benzo(k)fluoranthene	<1.57	<0.016	<0.016	11	mg/kg
Benzo(a)pyrene	<1.82*	<0.018	<0.018	0.11	mg/kg
Indeno(1,2,3-cd)pyrene	<1.68*	<0.017	<0.017	1.1	mg/kg
Dibenz(a,h)anthracene	<1.86*	<0.019	<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.

"-" - indicates no data