

**Table 1**  
**Soil Sampling Results**  
**Margaret Spaulding (OWP) #3**  
**Lone Pine Well Plugging Project**  
**Colorado Oil & Gas Conservation Commission**

Parameter	SS01 08/31/2021	SS02 08/31/2021	SS03 08/31/2021	SS01 Background 07/28/2021	COGCC Table 915-1 Standard	Units
Sample Location	Wellhead	Pumping Unit	Flowline	Background	NA	NA
Latitude/Longitude	40.72214, -106.4985	40.7221, -106.4985	40.72215, -106.4985	40.71514, -106.4963	NA	NA
Laboratory ID	2109051-01	2109051-02	2109051-03	2107315-01	NA	NA
Depth	2.5	0-0.17	5	0-0.66	NA	feet bgs
PID	84.3	0.5	62.3	0.0	NA	ppm
Conductivity	1.070	0.578	0.524	0.286	<4	mmhos/cm
pH	<b>8.47</b>	7.03	7.59	<b>5.60</b>	6-8.3	pH units
SAR	1.73	0.19	0.71	0.16	<6	no units
Calcium	145	95.1	73.2	36.4	NA	mg/L
Magnesium	15.8	9.30	9.27	10.3	NA	mg/L
Sodium	82.1	7.26	24.2	4.22	NA	mg/L
Arsenic	<b>3.30</b>	<b>6.32</b>	<b>3.66</b>	<b>2.04</b>	0.68	mg/kg
Barium	388	142	251	146	15000	mg/kg
Cadmium	<5.00	<5.00	<5.00	<5.00	71	mg/kg
Chromium (VI)***	<0.250	<0.250	<0.250	Not Analyzed	0.3	mg/kg
Total Chromium	35.2	23.2	16.4	25.0	NA	mg/kg
Copper	15.2	34.3	20.2	27.5	3100	mg/kg
Lead	10.2	16.1	10.5	<10.0	400	mg/kg
Nickel	18.0	14.7	11.2	13.0	1500	mg/kg
Selenium	<20.0	<20.0	<20.0	<20.0	390	mg/kg
Silver	<1.00	<1.00	<1.00	<1.00	390	mg/kg
Zinc	33.3	199	43.7	64.8	23000	mg/kg
Boron	<1.20	<1.20	<1.20	<1.20	2	mg/L
TPH (GRO)	<50.0	<100	66.8	<10.0	NA	mg/kg
TPH (DRO)	1750	3580	2490	<10.0	NA	mg/kg
TPH (EXT DRO)	564	3600	796	<10.0	NA	mg/kg
Total TPH	<b>2314</b>	<b>7180</b>	<b>3352.8</b>	<30.0	500	mg/kg
Benzene	<0.0250	<0.0250	<0.0250	<0.0250	1.2	mg/kg
Toluene	<0.0250	<0.0250	<0.0250	<0.0250	490	mg/kg
Ethylbenzene	<0.0250	<0.0250	<0.0250	<0.0250	5.8	mg/kg
Total Xylenes	<0.0750	<0.0750	<0.0750	<0.0250	58	mg/kg
1,3,5-trimethylbenzene	0.206	<0.0250	<0.0250	<0.0250	27	mg/kg
1,2,4-trimethylbenzene	0.0379	<0.0250	0.0904	<0.0250	30	mg/kg
Naphthalene	0.360	<0.0250	1.99	<0.0250	2	mg/kg
2-methylnaphthalene	1.68	<0.226	2.76	<0.023	24	mg/kg
1-methylnaphthalene	2.56	<0.161	2.39	<0.016	18	mg/kg
Acenaphthene	0.595	<0.235	<0.235	<0.024	360	mg/kg
Fluorene	0.992	<0.142	0.600	<0.014	240	mg/kg
Anthracene	<0.172	<0.172	<0.172	<0.017	1800	mg/kg
Fluoranthene	<0.185	<0.185	<0.185	<0.019	240	mg/kg
Pyrene	0.555	0.228	<0.132	<0.013	180	mg/kg
Benzo(a)anthracene	<0.230	<0.230	<0.230	<0.023	1.1	mg/kg
Chrysene	0.631	0.818	0.690	<0.017	110	mg/kg
Benzo(b)fluoranthene	<0.192	<0.192	<0.192	<0.019	1.1	mg/kg
Benzo(k)fluoranthene	<0.157	<0.157	<0.157	<0.016	11	mg/kg
Benzo(a)pyrene	<0.182*	<0.182*	<0.182*	<0.018	0.11	mg/kg
Indeno(1,2,3-cd)pyrene	<0.168	<0.168	<0.168	<0.017	1.1	mg/kg
Dibenz(a,h)anthracene	<0.186*	<0.186*	<0.186*	<0.019	0.11	mg/kg

**Notes:**

PID - Photoionization Detector  
SAR - Sodium Adsorption Ratio  
BTX - 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 - millihhos 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.