

**TABLE 1 - UNOCAL 4 SPILL
SOIL ANALYTICAL RESULTS
CAERUS OIL AND GAS LLC
PICEANCE BASIN, COLORADO**

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	Unocal 4 POR	Unocal 4 N Wall	Unocal 4 Bottom	Unocal 4 W Wall	Unocal 4 S Wall	Unocal 4 E Wall	Unocal 4 Bottom (30')	Unocal 4 E Wall (12')	Unocal 4 Bottom 40- 44.5'
Sample Date			7/15/2020	7/20/2020	7/20/2020	7/20/2020	7/20/2020	7/20/2020	8/7/2020	8/7/2020	8/18/2020
Sample Matix			Spill	Spill	Spill	Spill	Spill	Spill	Spill	Spill	Spill
Arsenic	0.39	mg/kg	11.8	12.2	16.7	15.9	16.1	21.5	9.76	15.8	16.6
Barium	15,000	mg/kg	526	284	300	290	334	2870	191	268	332
Cadmium	70	mg/kg	<0.500	0.507	<0.500	0.541	0.514	<0.500	<0.500	<0.500	<0.500
Chromium (III)	120,000	mg/kg	21.6	17.9	20.4	22.2	18.2	20	6.64	15.5	20.1
Chromium (VI)	23	mg/kg	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Copper	3,100	mg/kg	18	19.4	23.3	23.5	21.4	19.2	13.4	17.6	23.5
Lead	400	mg/kg	12.4	10.6	11.9	13.8	10.4	12.2	11.9	17	18.4
Mercury	23	mg/kg	0.383	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Nickel	1,600	mg/kg	16.9	17.2	18.5	19.9	18.2	16.4	17	16.3	18.3
Selenium	390	mg/kg	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Silver	390	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Zinc	23,000	mg/kg	52.1	48.8	44.7	51	46.5	40.7	54.9	46.2	54.2
EC	4 or 2x background	mmhos/cm	0.0364	0.716	2.74	0.942	0.851	0.326	4.07	0.34	1.75
pH	6-9	SU	8.33	8.39	8.5	8.72	8.49	8.72	8.71	8.6	8.55
SAR	12	unitless	20	2.14	25	3.66	3.17	2.04	39.9	0.711	31.6
TPH-DRO			5920	35.8	1420	141	42.8	271	3170	60	538
TPH-GRO			16400	1.68	3480	1.56	0.25	1790	3860	0.204	2960
TPH	500	mg/kg	22320	37.48	4900	142.56	43.05	2061	7030	60.204	3498
Benzene	0.17	mg/kg	2.23	0.0338	18.4	0.0203	0.00819	<0.250	0.132	<0.00100	8.09
Toluene	85	mg/kg	75	0.0303	172	0.0202	0.00929	8	23.3	<0.00500	30.1
Ethylbenzene	100	mg/kg	21.9	0.00769	21.5	0.00565	0.00194	<0.250	7.03	<0.00250	6.22
Total Xylenes	175	mg/kg	870	0.0277	273	0.0385	0.00488	80.8	107	<0.00650	102
Acenaphthene	1,000	mg/kg	<0.0600	<0.00600	0.0385	<0.00600	<0.00600	<0.00600	0.0675	<0.00600	<0.00600
Anthracene	1,000	mg/kg	<0.0060	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Benz(a)anthracene	0.22	mg/kg	<0.0600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Benzo(b)fluoranthene	0.22	mg/kg	<0.0600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Benzo(k)fluoranthene	2.2	mg/kg	<0.0600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Benzo(a)pyrene	0.022	mg/kg	<0.0600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Chrysene	22	mg/kg	<0.0600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Dibenzo(a,h)anthracene	0.022	mg/kg	<0.0600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Fluoranthene	1,000	mg/kg	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Fluorene	1,000	mg/kg	0.608	<0.00600	0.106	<0.00600	<0.00600	0.0103	0.163	<0.00600	0.146
Indeno(1,2,3,c,d)pyrene	0.22	mg/kg	<0.0600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Naphthalene	23	mg/kg	8.45	<0.0200	1.5	<0.0200	<0.0200	0.126	3.05	<0.0200	3.6
Pyrene	1,000	mg/kg	<0.0600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600

Notes:

< - less than the stated reporting limit

Highlight - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

EC - electrical conductivity

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

NA - not analyzed

ND - non detect

SAR - sodium adsorption ratio

SU - standard unit

TPH-GRO - total petroleum hydrocarbons-gasoline range organics

TPH-DRO - total petroleum hydrocarbons-diesel range organics

TPH - combination of TPH-GRO and TPH-DRO