

TABLE 1
BRANDEL 5-14A
SOIL SAMPLE FIELD DATA SUMMARY TABLE
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	Approximate Depth (feet bgs)	PID (ppm-v)	Visual Observation	Olfactory Observation	Latitude, Longitude	Submitted for Lab Analysis (Y/N)
Wellhead Soil Samples							
WH-B01 @ 8'	08/14/23	8	11.3	N/S	N/O	40.2263373861612, -104.751221975378	Y
WH-N01 @ 7'	08/14/23	7	3.5	N/S	N/O	40.2263440028283, -104.751226775375	Y
WH-S01 @ 7'	08/14/23	7	1.3	N/S	N/O	40.2263232361637, -104.751223358715	N
WH-E01 @ 7'	08/14/23	7	1.2	N/S	N/O	40.2263341361585, -104.751204792048	N
WH-W01 @ 7'	08/14/23	7	1.3	N/S	N/O	40.2263392028325, -104.751230892046	N
WHS-N01 @ 3"	08/14/23	0.25	1.2	N/S	N/O	40.2263693861556, -104.751202142042	N
WHS-S01 @ 3"	08/14/23	0.25	1.5	N/S	N/O	40.2262910195113, -104.751244925394	N
WHS-E01 @ 3"	08/14/23	0.25	1.8	N/S	N/O	40.2263352528242, -104.751179125391	N
WHS-W01 @ 3"	08/14/23	0.25	0.8	N/S	N/O	40.2263392028325, -104.751230892046	N
Flowline Soil Samples							
FL-B01 @ 6'	08/14/23	6	0.5	N/S	N/O	40.226325952831, -104.751233825378	Y
FL-B02 @ 4'	08/14/23	4	1.4	N/S	N/O	40.2251778940979, -104.753586779764	Y
Wellhead Background Soil Samples							
WH-BG01 @ 3'	08/14/23	3	0.7	N/S	N/O	40.2263619226134, -104.751360849347	Y
WH-BG01 @ 6'	08/14/23	6	1.3	N/S	N/O	40.2263619226134, -104.751360849347	Y
WH-BG02 @ 3'	08/14/23	3	1.7	N/S	N/O	40.2262607246675, -104.751271795363	Y
WH-BG02 @ 6'	08/14/23	6	2.1	N/S	N/O	40.2262607246675, -104.751271795363	Y
WH-BG03 @ 3'	08/14/23	3	1.6	N/S	N/O	40.226404746504, -104.751198802093	Y
WH-BG03 @ 6'	08/14/23	6	1.2	N/S	N/O	40.226404746504, -104.751198802093	Y

bgs = below ground surface

N/S = No Staining

PID = photoionization detector

N/O = No Odor

ppm-v = parts per million by volume

HC = hydrocarbon

BOLD = ECMC Table 915-1 exceedance

TABLE 2
BRANDEL 5-14A
SOIL SAMPLE RESULTS SUMMARY TABLE - VOCs
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Naphthalene (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
ECMC standards for soil (mg/kg) ⁽¹⁾		0.0026	0.69	0.78	9.9	500			0.0038	0.0081	0.0087
ECMC standards for soil (mg/kg) ⁽²⁾		1.2	490	5.8	58	500			2	30	27
Wellhead Soil Samples											
WH-B01 @ 8'	08/14/23	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00380	<0.00200	<0.00200
WH-N01 @ 7'	08/14/23	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00380	<0.00200	<0.00200
Flowline Soil Samples											
FL-B01 @ 6'	08/14/23	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00380	<0.00200	<0.00200
FL-B02 @ 4'	08/14/23	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00380	<0.00200	<0.00200

Notes:

⁽¹⁾ ECMC Table 915-1: Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021

⁽²⁾ ECMC Table 915-1: Residential Soil Screening Level Concentrations, effective January 15, 2021

ECMC = Energy & Carbon Management Commission

< = Analytical result is less than the laboratory reporting limit

mg/kg = milligrams per kilogram

Values presented in **BOLD** contained concentrations exceeding ECMC Table 915-1 Cleanup Concentrations

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

TMB = Trimethybenzene

TABLE 3
BRANDEL 5-14A
SOIL SAMPLE RESULTS SUMMARY TABLE - SOIL SUITABILITY FOR RECLAMATION
KERR-McGEE OIL AND GAS ONSHORE LP

Sample Location	Date	Depth (ft. bgs)	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
<i>ECMC standards for soil (mg/kg)</i> ⁽¹⁾			6 - 8.3	<6	<4	2
<i>Background Limits</i>				7.01		
<i>Wellhead Soil Samples</i>						
WH-B01 @ 8'	8/14/2023	8	8.46*	2.58	0.564	0.265
WH-N01 @ 7'	8/14/2023	7	7.92	1.65	0.883	0.141
<i>Flowline Soil Samples</i>						
FL-B01 @ 6'	8/14/2023	6	7.35	2.27	0.286	0.120
FL-B02 @ 4'	8/14/2023	4	7.65	0.341	0.105	0.103
<i>Wellhead Background Soil Samples</i>						
WH-BG01 @ 3'	8/14/2023	3	8.05	4.24	1.63	0.334
WH-BG01 @ 6'	8/14/2023	6	8.24	6.65	0.956	0.364
WH-BG02 @ 3'	8/14/2023	3	8.02	5.55	2.25	0.553
WH-BG02 @ 6'	8/14/2023	6	8.16	7.01	1.53	0.413
WH-BG03 @ 3'	8/14/2023	3	8.12	5.24	1.55	0.227
WH-BG03 @ 6'	8/14/2023	6	8.03	6.35	2.70	0.317

Notes:

⁽¹⁾ Standards for soil are taken from ECMC Table 915-1, effective January 15, 2021

ECMC = Energy & Carbon Management Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

ft. bgs = Feet below ground surface

mmhos/cm = Millimhos per centimeter

mg/L = Milligrams per liter

SAR = Sodium Absorption Ratio

EC = Electrical Conductivity

Values presented in **BOLD*** contained concentrations exceeding ECMC Table 915-1 Cleanup Concentrations but within analytical variability of background concentrations.

TABLE 4
BRANDEL 5-14A
SOIL VAPOR DATA SUMMARY TABLE
KERR-McGEE OIL AND GAS ONSHORE LP

Soil Vapor Point ID	Date	Time	Methane (%)	Carbon Dioxide (%)	Carbon Monoxide (PPM)	Oxygen (%)	Hydrogen Sulfide (PPM)	Sample Collected (Y or N)
SVP-01 @ 10'	08/16/23	1546	0.0	14.0	0	3.2	1	N
SVP-02 @ 10'	Destroyed by rain runoff							
SVP-03 @ 5'	08/16/23	1550	0.0	4.2	0	16.6	1	N
SVP-04 @ 5'	08/16/23	1552	0.0	4.8	0	15.7	0	N
SVP-05 @ 5'	08/16/23	1554	0.0	4.0	0	16.6	2	N

% = percentage

ppm = parts per million