

TABLE 1
SOIL SAMPLE ANALYTICAL AND FIELD RESULTS
DORIS ACKERSON B 1 WELLHEAD
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE, LP

Analyte	Groundwater Protection Values (GPV)	B01@7'	BG01	BG02	BG03	BG04
		2/22/2021	2/22/2021	2/22/2021	2/22/2021	2/22/2021
Photoionization Detector Reading						
PID (ppm)	NA	0.1	0.0	0.0	0.0	0.0
Total Petroleum Hydrocarbons by USEPA Method 8015D						
TPH-GRO* (mg/kg)	500	<0.200	NA	NA	NA	NA
TPH-DRO* (mg/kg)	500	<25.0	NA	NA	NA	NA
TPH-RRO* (mg/kg)	500	<100	NA	NA	NA	NA
Soil Suitability for Reclamation						
EC (mmhos/cm)	4	3.06	4.89	NA	NA	NA
Sodium Adsorption Ratio (SAR)	6	NA	NA	NA	NA	NA
Sodium Adsorption Ratio (units)	6	3.63	2.84	NA	NA	NA
pH, Lab (pH units)	6-8.3	7.36	7.06	NA	NA	NA
Boron (mg/L)	2	4.0	2.1	NA	NA	NA
Soil Suitability for Reclamation (GPV for Soil)						
Benzene (mg/kg)	0.0026	<0.00200	NA	NA	NA	NA
Toluene (mg/kg)	0.69	<0.00200	NA	NA	NA	NA
Ethylbenzene (mg/kg)	0.78	<0.00200	NA	NA	NA	NA
Xylenes, Total (mg/kg)	9.9	<0.00600	NA	NA	NA	NA
1,2,4-Trimethylbenzene (mg/kg)	0.0081	<0.00200	NA	NA	NA	NA
1,3,5-Trimethylbenzene (mg/kg)	0.0087	<0.00200	NA	NA	NA	NA
Acenaphthene (mg/kg)	0.55	<0.00434	NA	NA	NA	NA
Anthracene (mg/kg)	5.8	<0.00434	NA	NA	NA	NA
Benzo (a) anthracene (mg/kg)	0.011	<0.00434	NA	NA	NA	NA
Benzo (b) fluoranthene (mg/kg)	0.3	<0.00434	NA	NA	NA	NA
Benzo (k) fluoranthene (mg/kg)	2.9	<0.00434	NA	NA	NA	NA
Benzo (a) pyrene (mg/kg)	0.24	<0.00434	NA	NA	NA	NA
Chrysene (mg/kg)	9	<0.00434	NA	NA	NA	NA
Fluoranthene (mg/kg)	8.9	<0.00434	NA	NA	NA	NA
Fluorene (mg/kg)	0.54	<0.00434	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene (mg/kg)	0.98	<0.00434	NA	NA	NA	NA
1-Methylnaphthalene (mg/kg)	0.006	<0.00434	NA	NA	NA	NA
2-Methylnaphthalene (mg/kg)	0.019	<0.00434	NA	NA	NA	NA
Naphthalene (mg/kg)	0.0038	<0.00434	NA	NA	NA	NA
Pyrene (mg/kg)	1.3	<0.00434	NA	NA	NA	NA
Metals in Soils (GPV for Soil)						
Arsenic (mg/Kg)	0.29	4.18	3.28	3.16	3.42	3.79
Barium (mg/Kg)	82	173	255	NA	NA	NA
Cadmium (mg/Kg)	0.38	0.362	0.345	NA	NA	NA
Chromium, Hexavalent (mg/Kg)	0.00067	<1	<12.5	NA	NA	NA
Copper (mg/Kg)	46	13.6	16	NA	NA	NA
Lead (mg/Kg)	14	14.9	13.9	NA	NA	NA
Nickel (mg/Kg)	26	15.5	14	NA	NA	NA
Selenium (mg/Kg)	0.26	0.585	0.559	NA	NA	NA
Silver (mg/Kg)	0.8	0.0709	0.0833	NA	NA	NA
Zinc (mg/Kg)	370	57.2	67.7	NA	NA	NA

TABLE 1 (Continued)
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Analyte	Groundwater Protection Values (GPV)	BGComp01	BG05	B02@10'	BG02@10'
		2/22/2021	3/5/2021	5/7/2021	5/7/2021
Photoionization Detector Reading					
PID (ppm)	NA	0.0	NA	0.1	0.0
Total Petroleum Hydrocarbons by USEPA Method 8015D					
TPH-GRO* (mg/kg)	500	NA	NA	NA	NA
TPH-DRO* (mg/kg)	500	NA	NA	NA	NA
TPH-RRO* (mg/kg)	500	NA	NA	NA	NA
Soil Suitability for Reclamation					
EC (mmhos/cm)	4	NA	3.96	NA	3.15
Sodium Adsorption Ratio (SAR)	6	NA	NA	NA	6.11
Sodium Adsorption Ratio (units)	6	NA	6.52	NA	NA
pH, Lab (pH units)	6-8.3	NA	7.26	NA	7.21
Boron (mg/L)	2	NA	2.9	1.4	2.4
Soil Suitability for Reclamation (GPV for Soil)					
Benzene (mg/kg)	0.0026	NA	NA	NA	NA
Toluene (mg/kg)	0.69	NA	NA	NA	NA
Ethylbenzene (mg/kg)	0.78	NA	NA	NA	NA
Xylenes, Total (mg/kg)	9.9	NA	NA	NA	NA
1,2,4-Trimethylbenzene (mg/kg)	0.0081	NA	NA	NA	NA
1,3,5-Trimethylbenzene (mg/kg)	0.0087	NA	NA	NA	NA
Acenaphthene (mg/kg)	0.55	NA	NA	NA	NA
Anthracene (mg/kg)	5.8	NA	NA	NA	NA
Benzo (a) anthracene (mg/kg)	0.011	NA	NA	NA	NA
Benzo (b) fluoranthene (mg/kg)	0.3	NA	NA	NA	NA
Benzo (k) fluoranthene (mg/kg)	2.9	NA	NA	NA	NA
Benzo (a) pyrene (mg/kg)	0.24	NA	NA	NA	NA
Chrysene (mg/kg)	9	NA	NA	NA	NA
Fluoranthene (mg/kg)	8.9	NA	NA	NA	NA
Fluorene (mg/kg)	0.54	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene (mg/kg)	0.98	NA	NA	NA	NA
1-Methylnaphthalene (mg/kg)	0.006	NA	NA	NA	NA
2-Methylnaphthalene (mg/kg)	0.019	NA	NA	NA	NA
Naphthalene (mg/kg)	0.0038	NA	NA	NA	NA
Pyrene (mg/kg)	1.3	NA	NA	NA	NA
Metals in Soils (GPV for Soil)					
Arsenic (mg/Kg)	0.29	3.76	4.88	NA	3.54
Barium (mg/Kg)	82	NA	351	NA	194
Cadmium (mg/Kg)	0.38	NA	0.255	NA	0.233
Chromium, Hexavalent (mg/Kg)	0.00067	NA	<0.5	NA	<0.502
Copper (mg/Kg)	46	NA	13	NA	10.6
Lead (mg/Kg)	14	NA	11.8	9.61	8.8
Nickel (mg/Kg)	26	NA	13.7	NA	12.2
Selenium (mg/Kg)	0.26	NA	0.314	0.281	0.377
Silver (mg/Kg)	0.8	NA	0.0523	NA	0.0286
Zinc (mg/Kg)	370	NA	50.3	NA	38.3

TABLE 1 (Continued)
SOIL SAMPLE ANALYTICAL AND FIELD RESULTS
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Notes:

GPV - groundwater protection values
mg/kg - milligrams per kilogram
PID - Photoionization Detector
ppm - parts per million
TPH - total petroleum hydrocarbons
GRO - gasoline range organics
DRO - diesel range organics
RRO - residual range organics

EC - electrical conductivity
SAR - sodium adsorption ratio
mmhos/cm - millimhos per centimeter
<0.00200 - less than laboratory reporting limit
NA - Not Applicable / Not Analyzed
Bold indicates exceeds allowable level
*Allowable level for TPH is 500 mg/kg for combined GRO,
DRO, and RRO

TABLE 2
PHOTOIONIZATION DETECTOR FIELD RESULTS
DORIS ACKERSON B 1 WELLHEAD
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE, LP

Screening Location	Location	Date	PID Reading (ppm)
N01@6'	Wellhead Excavation	2/22/2021	0.1
E01@6'	Wellhead Excavation	2/22/2021	1.2
S01@6'	Wellhead Excavation	2/22/2021	0.2
W01@6'	Wellhead Excavation	2/22/2021	0.1
B01@7'	Wellhead Excavation	2/22/2021	0.1
B02@10'	Wellhead Excavation	5/7/2021	0.1
BG01	Background	2/22/2021	0.0
BG02	Background	2/22/2021	0.0
BG03	Background	2/22/2021	0.0
BG04	Background	2/22/2021	0.0
BG Comp 01	Background	2/22/2021	0.0
BG05@7'	Background	3/5/2021	NA
BG02@10'	Background	5/7/2021	0.0
Pothole 1	Flowline Pothole	3/8/2021	0.1
Pothole 2	Flowline Pothole	3/8/2021	0.0
Pothole 3	Flowline Pothole	3/8/2021	0.0
Pothole 4	Flowline Pothole	3/8/2021	0.1

Notes:

PID - Photoionization Detector

ppm - parts per million

NA - Not analyzed with PID; Sampled for inorganic parameters only.

TABLE 3
GROUNDWATER ANALYTICAL AND FIELD RESULTS
DORIS ACKERSON B 1
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE, LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- trimethylbenzene (µg/L)	1,3,5- trimethylbenzene (µg/L)	Total Dissolved Solids (ug/L)	Chloride Ion (ug/L)	Sulfate Ion (ug/L)	Depth to Water/ (Product Thickness) (ft bgs)
COGCC Allowable Levels		5	560	700	1400	140	67	67		250,000	250,000	
GW01	2/22/2021	<4.00	<4.00	<4.00	<4.00	<16.0	<4.00	<4.00	12,400,000	372,000	1,300,000	6

Notes: COGCC - Colorado Oil and Gas Conservation Commission µg/L - micrograms per liter
ft bgs - feet below ground surface < - less than laboratory reporting limit
NA - not analyzed/not available Excavation groundwater depth is approximate
NM - not measured
Corrected Relative GW Elev. is used when LNAPL is present.
BOLD = Analytical result is in exceedance of COGCC Table 915-1 groundwater standards.