



SITE NAME: Walcker AB 12-08 Multi Tank Battery							DATE: 8/27/2024	REM. PROJECT #: 35850	WEATHER: SUNNY/CLEAR	
SITE DIRECTIONS: Turn right on CO 88 going NE on HWY 14, 2 miles - turn right, 2.4 miles - turn left, .9 m							CLIENT: Noble			
LEGALS AND LAT/LONG: 40.590023, -104.490344							TASMAN PERSONNEL: JA, MW			
SOIL TYPES: Well Graded Sand - SW							SURFACE GRADIENT:			
SOIL SAMPLING							FACILITY INFRASTRUCTURE			
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo?	Grab or Lab Sample?	EQUIPMENT	Quantity	Photo?	
							Above Ground Storage Tank (AST)	2	✓	
08-27-2024 10:32	AST01@0-6"	0.1	No Staining	No Odor	Yes	Lab	Buried or Partially Buried Vessel	2	✓	
08-27-2024 10:37	AST02@0-6"	3.3	No Staining	No Odor	Yes	Lab	Separator	1	✓	
08-27-2024 10:04	SEP01-FL@2'	0.3	No Staining	No Odor	Yes	Lab	Emission Control Device (ECD)			
08-27-2024 10:09	SEP01-DL@2'	0.1	No Staining	No Odor	Yes	Lab	Dump Line	1	✓	
08-27-2024 11:22	MH01@0-6"	0.1	No Staining	No Odor	Yes	Grab	Wellhead			
08-27-2024 10:45	PWV01-S@2'	0.1	No Staining	No Odor	Yes	Lab	Flowline			
08-27-2024 10:48	PWV01-W@2'	0.0	No Staining	No Odor	Yes	On-hold	Other:			
08-27-2024 10:50	PWV01-N@2'	0.0	No Staining	No Odor	Yes	On-hold	Soil Loads Removed			
08-27-2024 10:53	PWV01-B@4'	0.0	No Staining	No Odor	Yes	Lab	IMPACTED SOIL IDENTIFIED?			
08-27-2024 10:54	PWV02-S@2'	0.0	No Staining	No Odor	Yes	On-hold	ESTIMATED VOLUME OF IMPACTS:			
08-27-2024 10:58	PWV02-E@2'	0.1	No Staining	No Odor	Yes	Lab	Date	Number	CY	
08-27-2024 11:01	PWV02-N@2'	0.0	No Staining	No Odor	Yes	On-hold				
08-27-2024 11:04	PWV02-B@4'	0.2	No Staining	No Odor	Yes	Lab				
08-27-2024 11:21	BKG01@0-6"	0.0	No Staining	No Odor	Yes	Lab				
08-27-2024 11:22	BKG01@2'	0.0	No Staining	No Odor	Yes	Lab				
08-27-2024 11:23	BKG01@4'	0.0	No Staining	No Odor	Yes	Lab	Total Removed	0	0	
							Disposal Facility:			
							Groundwater Recovery			
							DATE GW ENCOUNTERED:		DEPTH:	
							GROUNDWATER IN CONTACT WITH IMPACTED SOIL?			
							LNAPL OR SHEEN OBSERVED ON GW?			
GROUNDWATER SAMPLING							Date		BBLS	
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?				
							Total Removed		0	
							Disposal Facility:			



Site Area/AOC: Walcker AB12-08 Mult TB Client: Noble

Daily Forecast/Weather: SUNNY/CLEAR Personnel: JA, MW

Task/Location Description: Decommissioning soil sampling

Need photo log?




Equipment ID:SEP01-FL

Equipment Type:
Material:
Volume:
Contents:
Notes/Conditions:FACING south

Equipment ID:SEP01-DL

Equipment Type:
Material:
Volume:
Contents:
Notes/Conditions:FACINGwest

							
Equipment ID: Separator overall		Equipment Type:		Equipment ID: AST01		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: FACING east				Notes/Conditions: FACING			



Equipment ID:AST02

Equipment Type:

Material:

Volume:

Contents:

Notes/Conditions:FACING South



Equipment ID:AST OVERALL



Equipment Type:

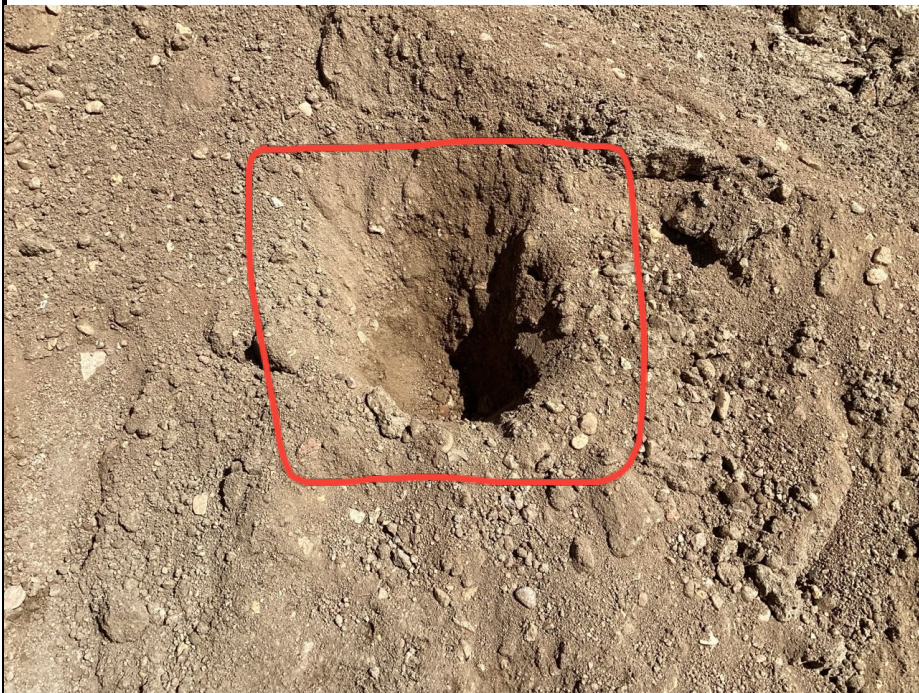

Material:

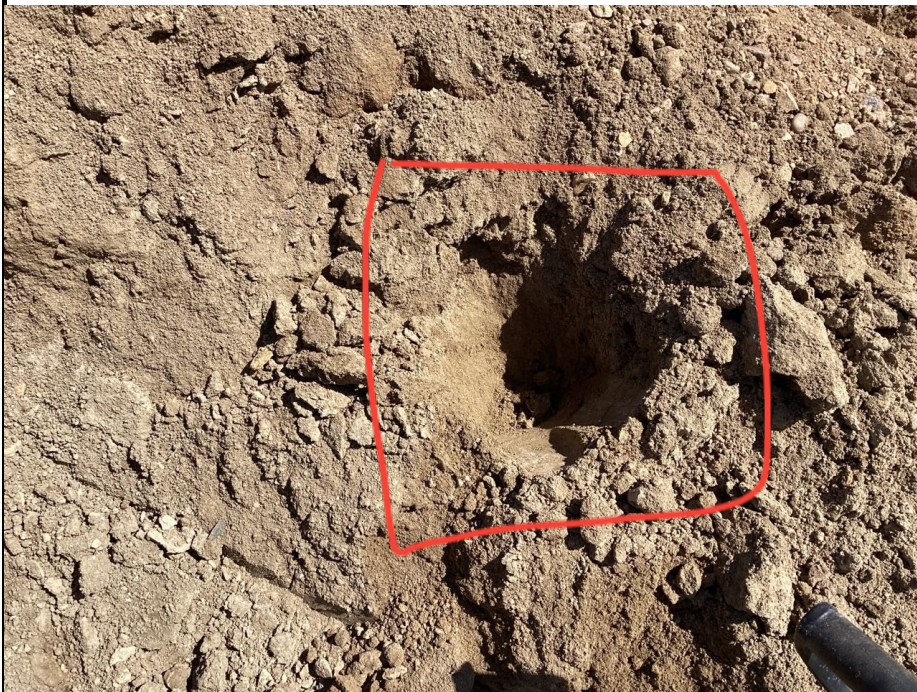

Volume:



Contents:

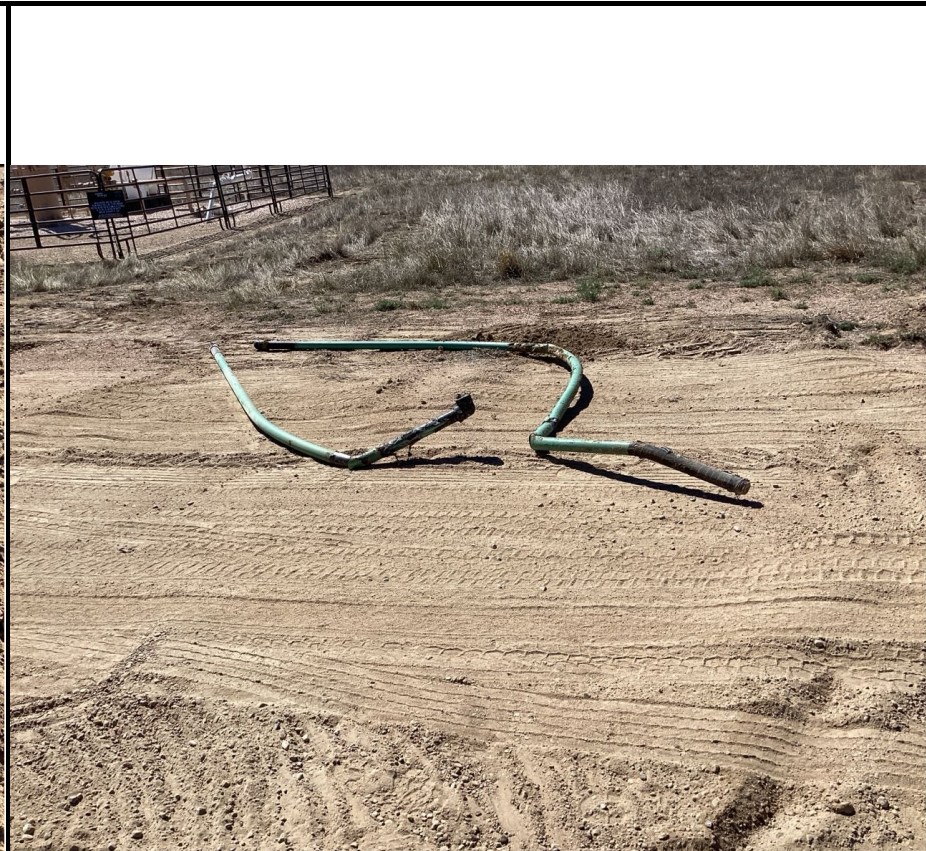
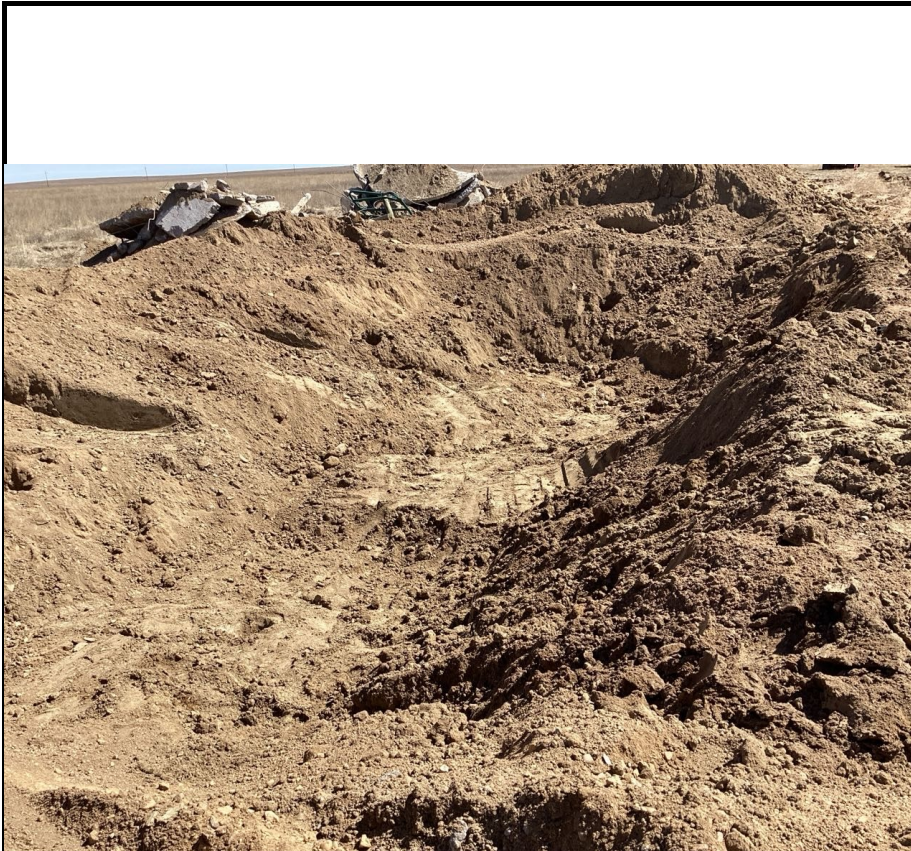
Notes/Conditions:FACING EAST

							
Equipment ID: PWV01-S		Equipment Type:		Equipment ID: PWV01-W		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: Facing S				Notes/Conditions: Facing W			

					
Equipment ID: PWV01-N		Equipment Type:			
Material:	Volume:	Contents:	Equipment ID: PWV01-B		Equipment Type:
Material:		Volume:	Contents:	Equipment ID: PWV01-B	
Notes/Conditions: Facing. N			Notes/Conditions:		

							
Equipment ID: PWV02-N		Equipment Type:		Equipment ID: PWV02-E		Equipment Type:	
Material:		Volume:		Contents:		Material:	
Volume:		Contents:		Material:		Volume:	
Notes/Conditions: FACING NORTH				Notes/Conditions: FACING EAST			

							
Equipment ID: PWV02-S		Equipment Type:		Equipment ID: PWV02-B		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: FACING SOUTH				Notes/Conditions: FACING NORTH			



Equipment ID:PWV 1 & 2 OVERALL

Equipment Type:

Material:

Volume:

Contents:

Notes/Conditions:FACING EAST

Equipment ID:DUMP LINES



Equipment Type:

Material:

Volume:

Contents:

Notes/Conditions:REMOVED WHILE JNSJDE OF RED CONES SO HAD TO TAKE A PICTURE AFTER REMOVAL

							
Equipment ID: MH01@0-6"		Equipment Type:		Equipment ID: MH01@0-6" OVERALL		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: FACING N				Notes/Conditions: FACING N			

					
Equipment ID: BKG01		Equipment Type:	Equipment ID:		Equipment Type:
Material:	Volume:	Contents:	Material:	Volume:	Contents:
Notes/Conditions: FACING N			Notes/Conditions:		

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE ENERGY, INC. - 100322
WALCKER AB 12-08 MULTI TANK BATTERY, WELD COUNTY, COLORADO
REM # 35850

Sample ID	Sample Date	Depth (ft. bgs)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
AST01@0-6"	08/27/24	0-0.5	40.589945	-104.490662	0.8	0.1
AST02@0-6"	08/27/24	0-0.5	40.589955	-104.490601	0.8	3.3
MH01@0-6"	08/27/24	0-0.5	40.589967	-104.490371	0.8	0.1
PWV01-B@4'	08/27/24	4	40.590039	-104.490658	0.8	0.0
PWV01-N@2'	08/27/24	2	40.590055	-104.490659	0.9	0.0
PWV01-S@2'	08/27/24	2	40.590018	-104.490654	0.9	0.1
PWV01-W@2'	08/27/24	2	40.590035	-104.490688	0.9	0.0
PWV02-B@4'	08/27/24	4	40.590039	-104.490606	0.8	0.2
PWV02-N@2'	08/27/24	2	40.590063	-104.490609	0.8	0.0
PWV02-E@2'	08/27/24	2	40.590047	-104.490570	0.8	0.1
PWV02-S@2'	08/27/24	2	40.590020	-104.490603	0.8	0.0
SEP01-DL@2'	08/27/24	2	40.590001	-104.490369	0.8	0.1
SEP01-FL@2'	08/27/24	2	40.590016	-104.490314	0.8	0.3
BKG01@0-6"	08/27/24	0-0.5	40.590217	-104.490088	1.2	0.0
BKG01@2'	08/27/24	2	40.590217	-104.490088	1.2	0.0
BKG01@4'	08/27/24	4	40.590217	-104.490088	1.2	0.0

Notes:

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTMZone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

ft. = Feet

bgs = Below ground surface

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY, INC. - 100322
WALCKER AB 12-08 MULTI TANK BATTERY, WELD COUNTY, COLORADO
REM # 35850

Sample ID	Sample Date	Depth (ft. bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4- Trimethyl- Benzene (mg/kg)	1,3,5- Trimethyl- Benzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500**		
AST01@0-6"	08/27/24	0-0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST02@0-6"	08/27/24	0-0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV01-B@4'	08/27/24	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV01-S@2'	08/27/24	2	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV02-B@4'	08/27/24	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV02-E@2'	08/27/24	2	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP01-DL@2'	08/27/24	2	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP01-FL@2'	08/27/24	2	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

Notes:

1. **Bold** values exceed the ECMC Table 915-1 limit(s).
2. Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
3. * Indicates laboratory minimum detection limit in excess of SSL.
4. ** Summation of GRO+DRO+ORO must be less than 500 mg/kg.

ECMC = Energy & Carbon Management Commission

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

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY, INC. - 100322
WALCKER AB 12-08 MULTI TANK BATTERY, WELD COUNTY, COLORADO
REM # 35850

Sample ID	Sample Date	Depth (ft. bgs)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3- cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
AST01@0-6"	08/27/24	0-0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST02@0-6"	08/27/24	0-0.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00795	0.00751
PWV01-B@4'	08/27/24	4	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWV01-S@2'	08/27/24	2	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWV02-B@4'	08/27/24	4	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWV02-E@2'	08/27/24	2	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01-DL@2'	08/27/24	2	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01-FL@2'	08/27/24	2	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Notes:

1. **Bold** values exceed the ECMC Table 915-1 limit(s).
2. Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
3. * Indicates laboratory minimum detection limit in excess of SSL.

ECMC = Colorado Energy & Carbon Management Commission

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

ft. = Feet

bgs = Below ground surface

mg/kg = Milligrams per kilogram

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY, INC. - 100322
WALCKER AB 12-08 MULTI TANK BATTERY, WELD COUNTY, COLORADO
REM # 35850

Sample ID	Sample Date	Depth (ft. bgs)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
AST01@0-6"	08/27/24	0-0.5	7.89	0.323	0.154	<2.00
AST02@0-6"	08/27/24	0-0.5	8.05	0.276	0.221	<2.00
PWV01-B@4'	08/27/24	4	7.84	1.26	0.0296	<2.00
PWV01-S@2'	08/27/24	2	8.26	0.194	0.0290	<2.00
PWV02-B@4'	08/27/24	4	8.20	0.354	0.159	<2.00
PWV02-E@2'	08/27/24	2	7.81	1.59	0.0258	<2.00
SEP01-DL@2'	08/27/24	2	8.12	0.443	0.202	<2.00
SEP01-FL@2'	08/27/24	2	8.41	0.152	0.186	<2.00
BKG01@0-6"	08/27/24	0-0.5	7.29	0.377	0.0181	<2.00
BKG01@2'	08/27/24	2	7.62	0.315	0.0491	<2.00
BKG01@4'	08/27/24	4	7.97	0.255	0.118	<2.00
Maximum Background Concentration			7.97	-	-	-
Mean Background Concentration			7.63	-	-	-

Notes:

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within background concentrations.
2. **Bold** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
3. Brown highlighted soil analytical values indicate a regulatory exceedance.

ECMC = Colorado Energy & Carbon Management Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligram per liter

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

ft. = Feet

bgs = Below ground surface

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE ENERGY, INC. - 100322
WALCKER AB 12-08 MULTI TANK BATTERY, WELD COUNTY, COLORADO
REM # 35850

Sample ID	Sample Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) ^[4] (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
AST01@0-6"	08/27/24	0-0.5	3.22	42.2	<0.200	<0.30 ^[4]	4.55	4.05	3.46	<0.260	<0.0200	13.5
AST02@0-6"	08/27/24	0-0.5	3.00	40.7	<0.200	<0.30 ^[4]	3.78	3.29	3.03	<0.260	<0.0200	11.5
PWV01-B@4'	08/27/24	4	2.60	92.0	0.223	<0.30 ^[4]	4.73	6.79	4.36	<0.260	0.0430	20.9
PWV01-S@2'	08/27/24	2	3.15	60.9	<0.200	<0.30 ^[4]	3.77	5.65	4.52	<0.260	0.0370	14.8
PWV02-B@4'	08/27/24	4	5.08	64.3	0.223	<0.30 ^[4]	4.31	6.55	4.73	<0.260	0.0329	16.1
PWV02-E@2'	08/27/24	2	3.31	78.9	0.203	<0.30 ^[4]	4.36	6.51	4.39	<0.236	0.0377	17.1
SEP01-DL@2'	08/27/24	2	2.98	61.3	<0.200	<0.30 ^[4]	3.81	5.37	4.09	<0.260	0.0261	14.7
SEP01-FL@2'	08/27/24	2	2.76	43.2	<0.200	<0.30 ^[4]	3.91	3.24	3.18	<0.260	<0.0200	10.9
BKG01@0-6"	08/27/24	0-0.5	3.23	52.9	<0.200	<0.30 ^[4]	3.82	6.41	3.86	<0.260	0.0283	15.0
BKG01@2'	08/27/24	2	3.47	55.7	0.185	<0.30 ^[4]	3.74	6.52	4.12	<0.236	0.0301	14.6
BKG01@4'	08/27/24	4	3.18	58.5	<0.200	<0.30 ^[4]	3.89	7.11	5.76	<0.260	0.0296	15.3
Maximum Background Concentration			3.47	58.5	-	-	-	-	-	-	-	-
Maximum Background Concentration X 1.25			4.34	73.1	-	-	-	-	-	-	-	-

Notes:

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x the highest background concentration.
2. **Bold** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
3. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
4. Compound falls within ECMC Table 915-1 Footnote 9.
5. Non-detect background results accounted for in the highest background concentration by using the reporting limit.

ECMC = Energy & Carbon Management Commission

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

mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

