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Wellhead Closure Investigation and Environmental Summary

WELLS RANCH USX AA13-01 Wellhead
ECMC Remediation Project #40473
Weld County, Colorado

Attachments:

Field Form

Figure 1 – Site Location Map

Figure 2 – Soil Sample and Field Screening Locations Map

Figure 3 – Supplemental Site Investigation Map

Table 1 – Field Data Summary Table

Table 2 – Summary of Volatile Organic Soil Chemistry Data

Table 3 – Summary of Polycyclic Aromatic Hydrocarbon Soil Chemistry Data

Table 4 – Summary of Soil Suitability for Reclamation

Table 5 – Summary of Metals in Soil Chemistry Data

Photographic Log



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FIELD FORM



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FIGURES

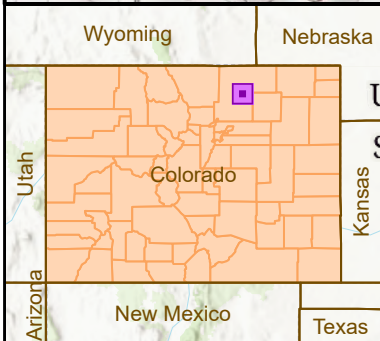
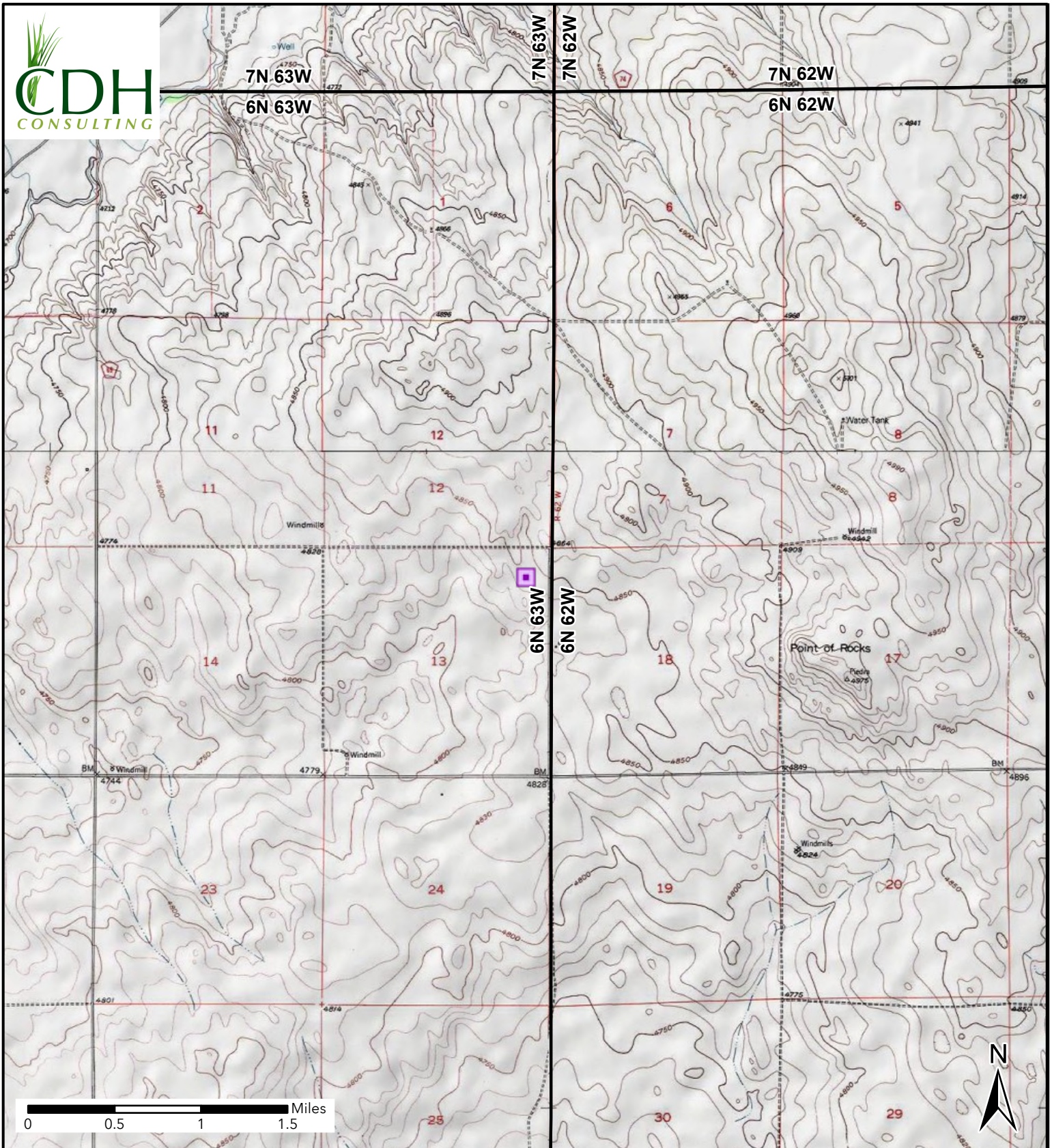
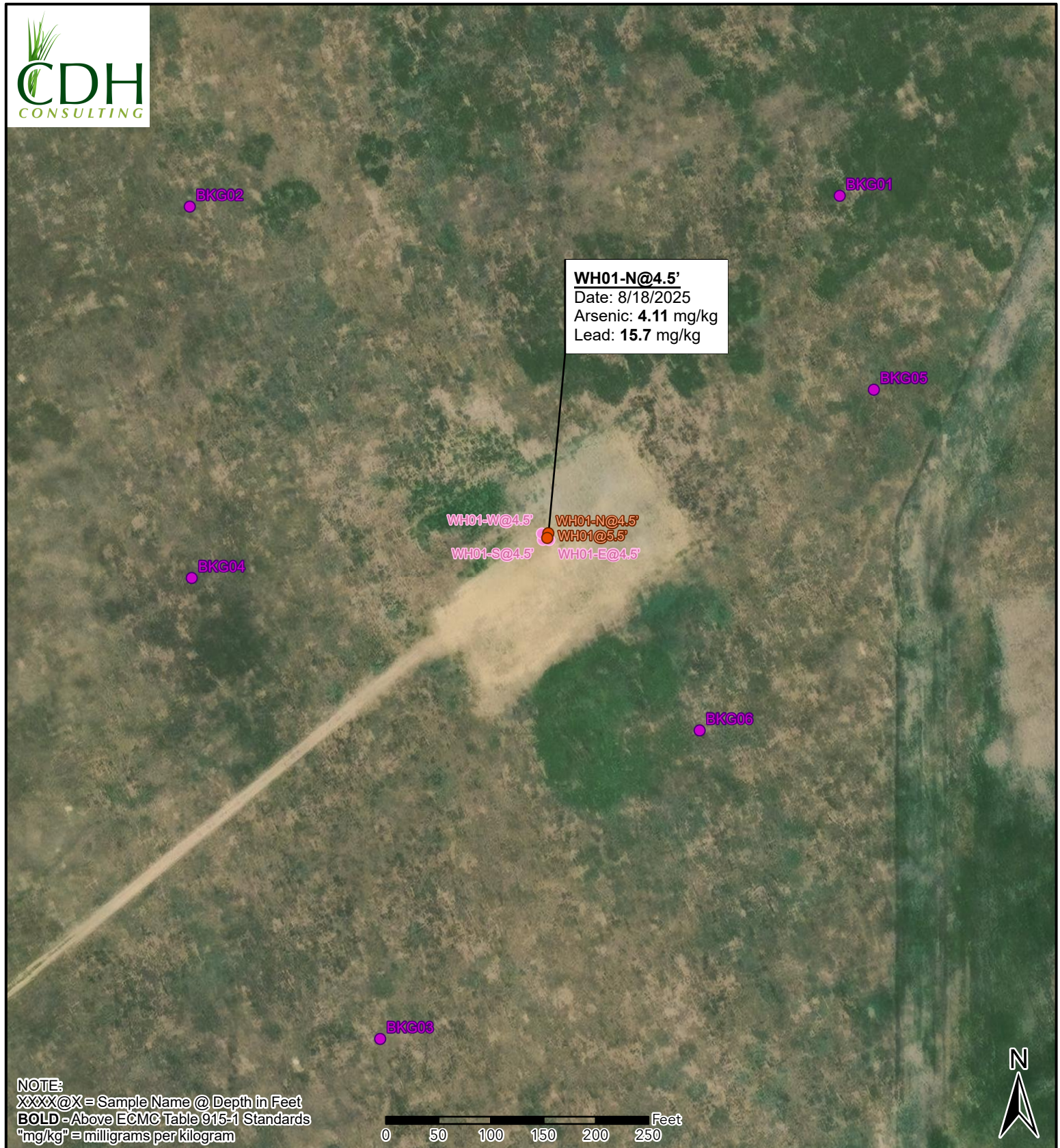


Figure 1
Site Location Map
WELLS RANCH USX AA13-01
NENE SEC 13-T6N-R63W
Weld County, Colorado
Noble Energy Inc

 Site Location



NOTE:
 XXXX@X = Sample Name @ Depth in Feet
BOLD - Above ECMC Table 915-1 Standards
 "mg/kg" = milligrams per kilogram



Figure 2
Soil Sample and
Field Screening Locations Map
WELLS RANCH USX AA13-01
 NENE SEC 13-T6N-R63W
 Weld County, Colorado
 Noble Energy Inc.

- Soil Sample
- Screening Point
- Background Sample

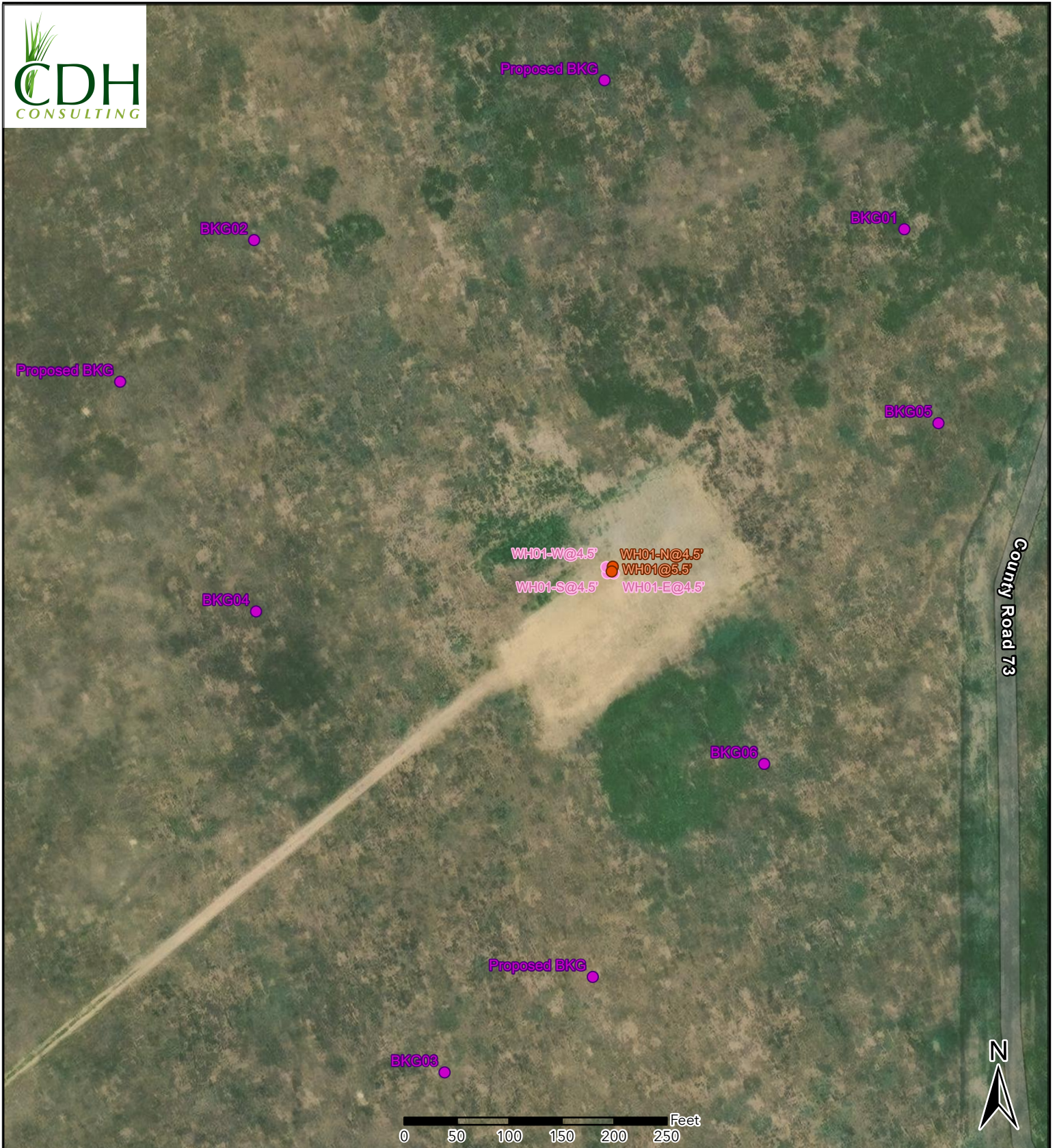


Figure 3
Supplemental Site Investigation Map
WELLS RANCH USX AA13-01
NENE SEC 13-T6N-R63W
Weld County, Colorado
Noble Energy Inc.

- Soil Sample
- Screening Point
- Background Sample



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TABLES

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
WELLS RANCH USX AA13-01, WELD COUNTY, COLORADO
REM # 40473

Sample ID	Sample Date	Depth (ft)	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
WH01@5.5'	8/18/2025	5.5	40.492005	-104.377368	1.300000	4.5
WH01-N@4.5'	8/18/2025	4.5	40.492015	-104.377365	1.500000	1.1
WH01-E@4.5'	8/18/2025	4.5	40.491998	-104.377362	1.100000	0.2
WH01-S@4.5'	8/18/2025	4.5	40.491991	-104.377378	1.100000	0.2
WH01-W@4.5'	8/18/2025	4.5	40.492014	-104.377387	1.100000	0.2
BKG01@5'	8/18/2025	5	40.492899	-104.376368	1.200000	0.2
BKG02@5'	8/18/2025	5	40.492882	-104.378595	1.100000	0.3
BKG03@5'	8/18/2025	5	40.490703	-104.377963	1.200000	0.8
BKG04@4.5'	10/24/2025	4.5	40.491905	-104.378587	1.500000	0.3
BKG05@4.5'	10/24/2025	4.5	40.492385	-104.376246	1.200000	0.0
BKG06@4.5'	10/24/2025	4.5	40.491497	-104.376851	1.300000	0.0

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

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE 100322
WELLS RANCH USX AA13-01, WELD COUNTY, COLORADO
REM # 40473

Sample ID	Sample Date	Depth (ft)	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**		
WH01@5.5'	8/18/2025	5.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<132.611	<0.211	<26.4	<106
WH01-N@4.5'	8/18/2025	4.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<150.341	<0.241	<30.1	<120

1. Bold values exceed the ECMC Table 915-1 limit(s)
 2. Red & 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
- (<) = 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

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE 100322
WELLS RANCH USX AA13-01, WELD COUNTY, COLORADO
REM # 40473

Sample ID	Sample Date	Depth (ft)	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	1800	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
WH01@5.5'	8/18/2025	5.5	<0.021	<0.021	<0.005	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.002	<0.002
WH01-N@4.5'	8/18/2025	4.5	<0.024	<0.024	<0.006	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.002	<0.002

1. Bold values exceed the ECMC Table 915-1 limit(s)

2. Red & 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

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

mg/kg = Milligrams per kilogram

ft = Feet

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
WELLS RANCH USX AA13-01, WELD COUNTY, COLORADO
REM # 40473

Sample ID	Sample Date	Depth (ft)	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
WH01@5.5'	8/18/2025	5.5	7.66	1.19	0.966	0.235
WH01-N@4.5'	8/18/2025	4.5	7.96	1.20	0.682	0.419
BKG01@5'	8/18/2025	5	7.40	0.0498	0.184	<0.102
BKG02@5'	8/18/2025	5	8.10	0.184	0.258	0.245
BKG03@5'	8/18/2025	5	7.52	0.0676	0.189	<0.105
BKG04@4.5'	10/24/2025	4.5	8.01	0.21	0.139	<0.50
BKG05@4.5'	10/24/2025	4.5	8.05	0.19	0.124	<0.50
BKG06@4.5'	10/24/2025	4.5	7.40	0.23	0.208	<0.50
Maximum Background Concentration			8.10	0.230	0.258	0.245

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.

ft = Feet

EC = Electrical Conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligrams per liter

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

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
WELLS RANCH USX AA13-01, WELD COUNTY, COLORADO
REM # 40473

Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (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	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
WH01@5.5'	8/18/2025	5.5	2.79	<79.7	<0.369	<0.22*	<44.7	<13.6	<25.3	<0.253	<0.778	<360
WH01-N@4.5'	8/18/2025	4.5	4.11	<75.5	<0.350	<0.26*	<42.4	15.7	<23.9	<0.239	<0.737	<341
BKG01@5'	8/18/2025	5	2.69	<72.7	<0.337	<0.21*	<40.8	<12.4	<23.0	<0.230	<0.709	<328
BKG02@5'	8/18/2025	5	2.33	<73.4	<0.340	<0.20*	<41.2	<12.5	<23.3	<0.233	<0.716	<331
BKG03@5'	8/18/2025	5	2.52	<77.7	<0.360	<0.21*	<43.6	<13.3	<24.6	<0.246	<0.758	<350
BKG04@4.5'	10/24/2025	4.5	2.6	74.4	0.094	<0.41*	3.3	4.9	3.3	<0.16	<0.080	13.0
BKG05@4.5'	10/24/2025	4.5	3.0	64.2	0.086	<0.41*	3.5	4.9	3.6	<0.14	<0.070	13.9
BKG06@4.5'	10/24/2025	4.5	2.2	44.9	<0.080	<0.41*	2.7	4.1	3.1	<0.16	<0.080	12.4
1.25x Maximum Background Concentration			3.8	93.0	0.118	NA	4.4	6.1	4.5	NA	NA	17.4

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
2. **Red** 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. Non-detect background results accounted for in the highest background concentration by using the reporting limit.

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

mg/kg = Milligrams per kilogram

ft = Feet

* Indicates laboratory minimum detection limit in excess of SSL

NA = Not analyzed



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PHOTOGRAPHIC LOG

Photographic Log
WELLS RANCH USX AA13-01 – REM #40473
Noble Energy, Inc
10/24/2025



Photo 1: View of background location 4, facing south

Photographic Log
WELLS RANCH USX AA13-01 – REM #40473
Noble Energy, Inc
10/24/2025



Photo 2: View of background location 5, facing north

Photographic Log
WELLS RANCH USX AA13-01 – REM #40473
Noble Energy, Inc
10/24/2025



Photo 3: View of background location 6, facing north