



## **Facility Closure Investigation and Environmental Summary**

WELLS RANCH USX AA23-07 Wellhead

ECMC Remediation Project #41671

Weld County, Colorado

### **Attachments:**

**Figure 1 – General Location Map**

**Figure 2 – Wellhead Soil Sample and Field Screening Locations**

**Table 1 – Soil Sample and Field Screening Location Information**

**Table 2 – Soil Analytical Results Summary Table – Volatile Organics**

**Table 3 – Soil Analytical Results Summary Table – PAHs**

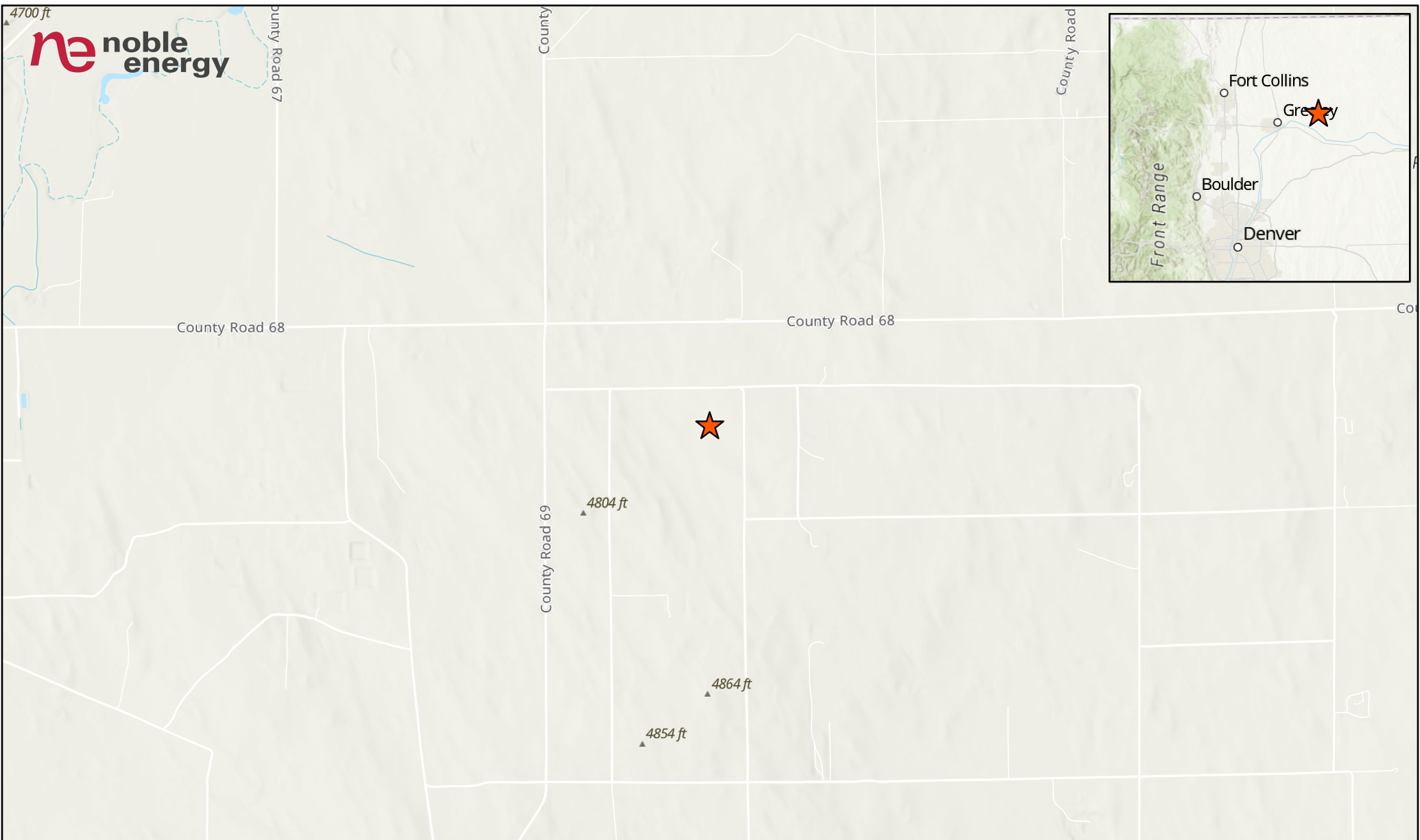
**Table 4 – Soil Analytical Results Summary Table – Soil Suitability**

**Table 5 – Soil Analytical Results Summary Table – Metals**

**Attachment A: Photographic Log**

**Attachment B: Facility Closure Checklist**

## **FIGURES**



**LEGEND**

 Site Location

0 0.5 1 Miles  
1 inch = 0.5 Mile



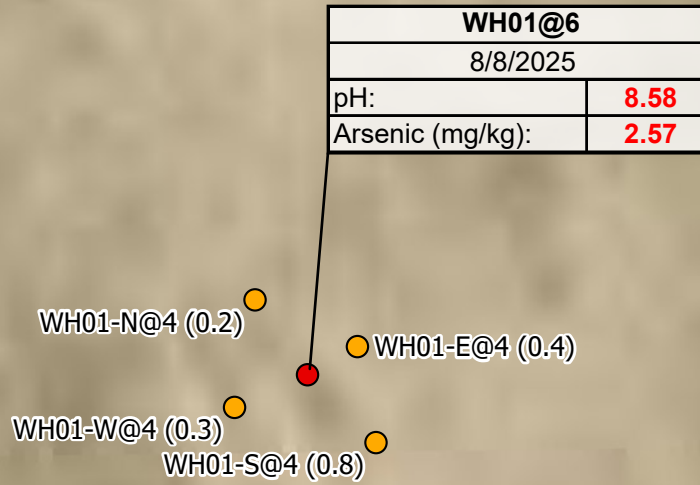
Project No:	025-532
Map By:	JW
Date:	09/22/2025

**WELLS RANCH USX AA23-07 WELLHEAD  
 GENERAL LOCATION MAP**  
 NOBLE ENERGY  
 SW 1/4 NE 1/4 SECTION 23  
 T6N R63W, 6TH PM  
 WELD COUNTY, COLORADO

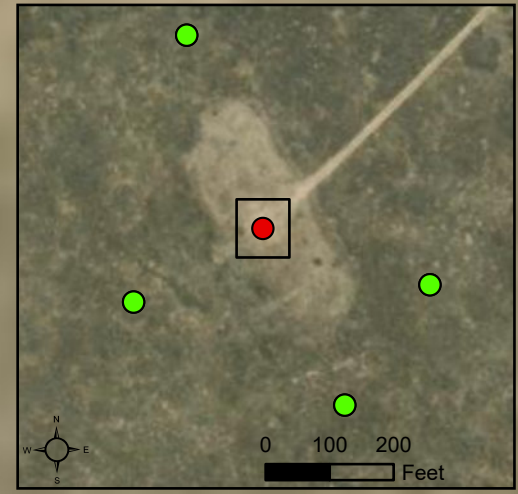


610 Garrison St., Unit T  
 Lakewood, CO 80215  
 303.378.4036

Figure
1



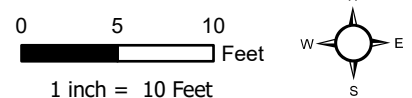
**LABEL LEGEND**  
 XXXX@X: SAMPLE NAME @ DEPTH IN FEET  
 WH: WELLHEAD SAMPLE  
**BOLD**: ABOVE ECMC TABLE 915-1 GWSSL



**Legend**

- Soil Sample
- Screening Location
- Proposed Background Sample

**NOTES:**  
 - Sample Label (PID Result in ppm)  
 - ppm = parts per million  
 - PID = photoionization detector



Project No: 025-532  
 Map By: JW  
 Date: 09/22/2025

**WELLS RANCH USX AA23-07 WELLHEAD  
 SOIL SAMPLE AND FIELD SCREENING LOCATIONS**  
 NOBLE ENERGY  
 SW 1/4 NE 1/4 SECTION 23  
 T6N R63W, 6TH PM  
 WELD COUNTY, COLORADO



610 Garrison St., Unit T  
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 303.378.4036

Figure  
 2

## **TABLES**

**TABLE 1**  
**FIELD DATA SUMMARY TABLE**  
**NOBLE 100322**  
**WELLS RANCH USX AA23-07 WELLHEAD, WELD COUNTY, COLORADO**  
**REM # 41671**

Sample ID	Sample Date	Depth (ft-bgs)	GPS Data		VOC Concentration (ppm)
			Latitude	Longitude	
WH01@6	8/8/2025	6	40.473602	-104.401590	0.4
WH01-N@4	8/8/2025	4	40.473613	-104.401600	0.2
WH01-E@4	8/8/2025	4	40.473606	-104.401581	0.4
WH01-W@4	8/8/2025	4	40.473597	-104.401604	0.3
WH01-S@4	8/8/2025	4	40.473592	-104.401578	0.8

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).

ppm - Parts per million

ft-bgs - feet below ground surface

TABLE 2  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
NOBLE 100322  
WELLS RANCH USX AA23-07 WELLHEAD, WELD COUNTY, COLORADO  
REM # 41671

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**		
WH01@6	8/8/2025	6	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.002	<125.200	<0.200	<25.0	<100

1. Grey highlighted soil analytical values indicate result is less than laboratory reporting limit

2. \*\* Summation of GRO+DRO+ORO must be less than 500 mg/kg

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

ft-bgs - feet below ground surface

mg/kg - milligrams per kilogram

TABLE 3  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE 100322  
WELLS RANCH USX AA23-07 WELLHEAD, WELD COUNTY, COLORADO  
REM # 41671

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	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@6	8/8/2025	6	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.002	<0.002

1. Grey highlighted soil analytical values indicate result is less than laboratory reporting limit  
ft-bgs - feet below ground surface  
mg/kg - milligrams per kilogram

**TABLE 4**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**NOBLE 100322**  
**WELLS RANCH USX AA23-07 WELLHEAD, WELD COUNTY, COLORADO**  
**REM # 41671**

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
WH01@6	8/8/2025	6	<b>8.58</b>	0.556	2.86	0.187

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

2. Brown highlighted soil analytical values indicate a regulatory exceedance.

ft-bgs - feet below ground surface

EC - Electrical Conductivity

SAR - Sodium adsorption ratio

mmhos/cm - millimhos per centimeter

mg/L - milligrams per liter

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
NOBLE 100322  
WELLS RANCH USX AA23-07 WELLHEAD, WELD COUNTY, COLORADO  
REM # 41671

Sample ID	Sample Date	Depth (ft-bgs)	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@6	8/8/2025	6	<b>2.57</b>	<72.8	<0.337	<0.279*	<40.8	<12.4	<23.1	<0.231	<0.710	<328

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s)
2. Red highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
3. Grey highlighted soil analytical values indicate result is less than laboratory reporting limit

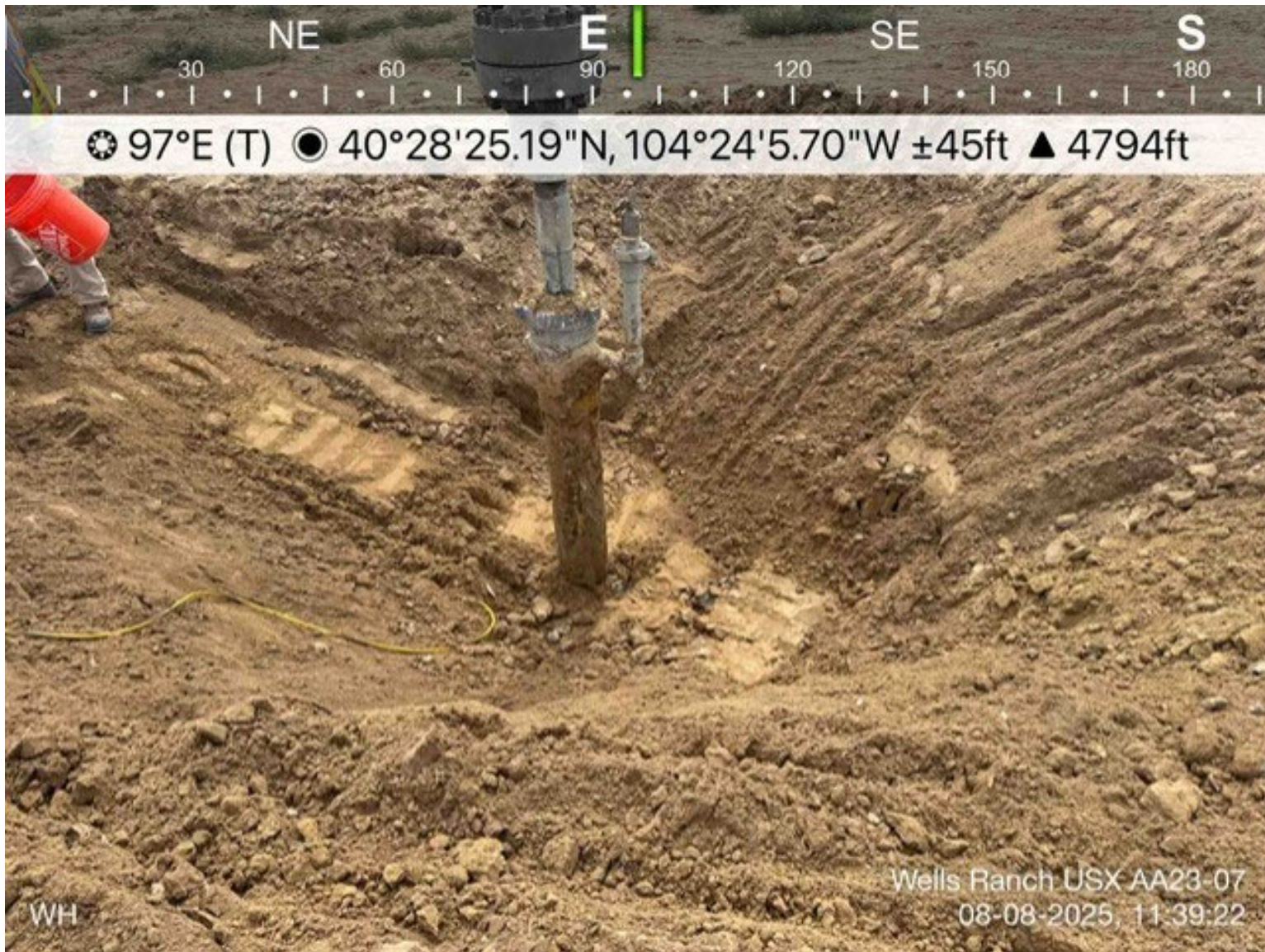
\* Indicates laboratory reporting or minimum detection limit in excess of SSL

ft-bgs - feet below ground surface

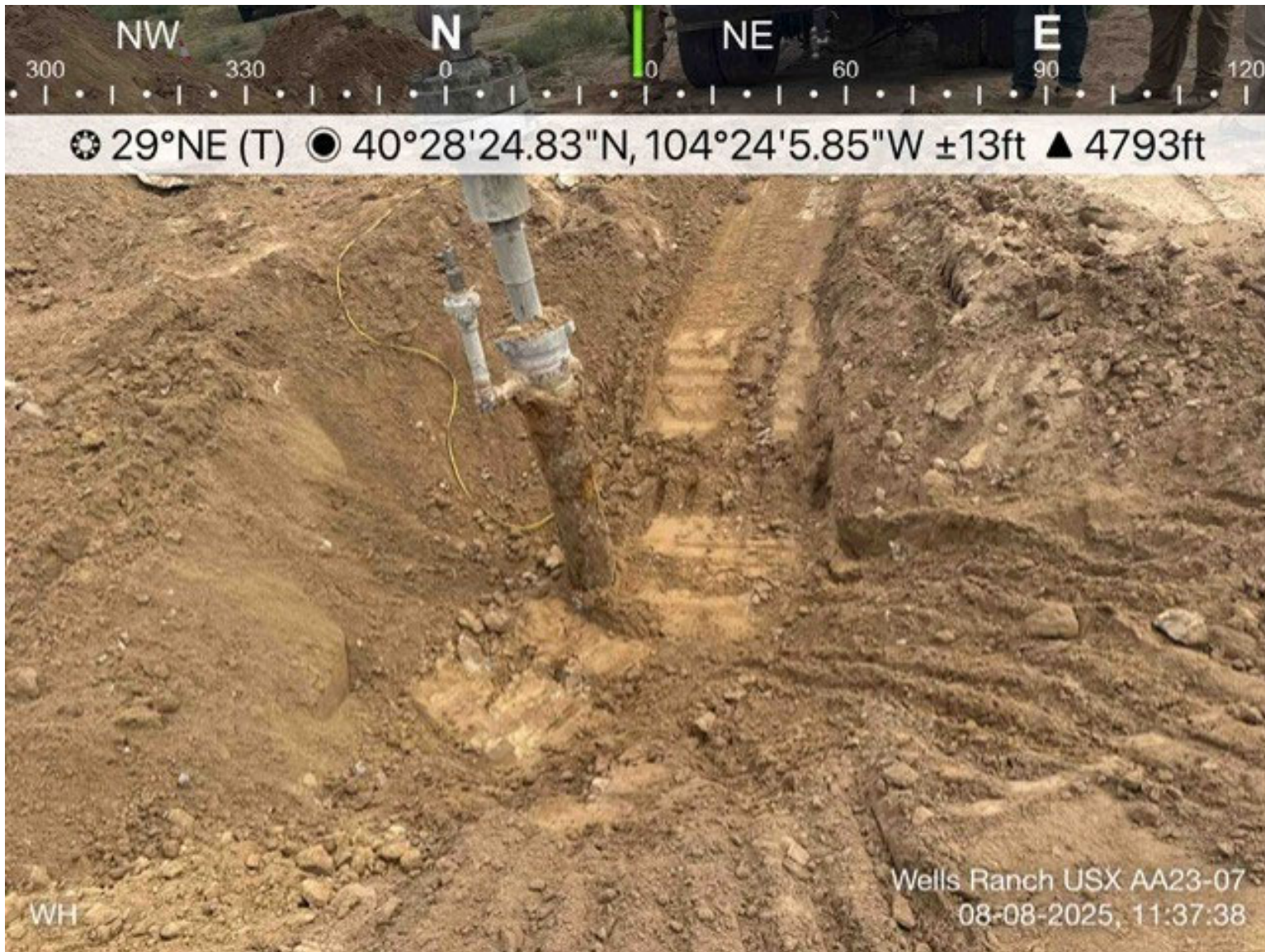
mg/kg - milligrams per kilogram

**ATTACHMENT A  
PHOTOGRAPHIC LOG**

WELLS RANCH USX AA23-07 Wellhead Photographic Log



WELLS RANCH USX AA23-07 Wellhead Photographic Log



WELLS RANCH USX AA23-07 Wellhead Photographic Log



**ATTACHMENT B  
FACILITY CLOSURE CHECKLIST**

# Wellhead Closure Checklist

## COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional attachments (optional):		Pit Closure		Tank Battery Closure		Flowline Closure		Partially Buried Vault Closure
Site Name & COGCC Facility Number: WELLS RANCH USX AA23-07, 299712		Date: 08/08/2025			Remediation Project #: 41671			
Associated Wells: NA		Age of Site: 06/20/2009 - Spud Date			Number of Photos Attached: 3			
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) Lat/Long: 40.473599 / -104.401575							Estimated Facility Size (acres): ~0.01	
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)  Overall good								
USCS Soil Type: SM				Estimated Depth to Groundwater: Unknown/Not encountered				
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)  None encountered or observed								
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)  None encountered or observed								
Wellhead(s)								
Well API	05-123-29491							
Age	06/20/2009 - Spud Date							
Condition of surface around wellhead	Good							
PID Readings	0.2 ppm - 0.8 ppm							
Condition of subsurface (staining present)	Good							
PID Readings	0.4 ppm							
Sample taken? Location/Sample ID#	WH01@6							
Photo Number(s)	1-3							
Other observations regarding wellheads:								
Summary								
Was impacted soil identified? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - less than 10 cubic yards <input type="checkbox"/> Yes - more than 10 cubic yards								
Total number of samples field screened: 5				Total number of samples collected: 5				
Highest PID Reading: 0.8 ppm				Total number of samples submitted to lab for analysis: 1				
If more than 10 cubic yards of impacted soil were observed:								
Vertical extent:				Estimated spill volume:				
Lateral extent:				Volume of soil removed:				
Is additional investigation required?								
Was groundwater encountered during the investigation? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - not impacted or in contact with impacted soils <input type="checkbox"/> Yes - groundwater impacted and/or in contact with impacted soils								
Measured depth to groundwater:				Was remedial groundwater removal conducted? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Date Groundwater was encountered:				Commencement date of removal:				
Sheen on groundwater? <input type="checkbox"/> Yes <input type="checkbox"/> No				Volume of groundwater removed prior to sampling:				
Free product observed? <input type="checkbox"/> Yes <input type="checkbox"/> No				Volume of groundwater removed post sampling:				
Total number of samples collected:				Total Volume of groundwater removed:				
Total number of samples submitted to lab for analysis:								