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Wellhead Closure Investigation and Environmental Summary

MILE HIGH TURKEY 2-7K Wellhead
ECMC Remediation Project #39565
Weld County, Colorado

Attachments:

Figure 1 – Site Location Map

Figure 2 – Soil Sample Locations Map

Figure 3 – Supplemental Site Investigation Map

Table 1 – Field Data Summary Table

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Table 3 – Summary of Polycyclic Aromatic Hydrocarbon Soil Chemistry Data

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Attachment A: Photographic Log

Attachment B: Wellhead Closure Checklist



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FIGURES

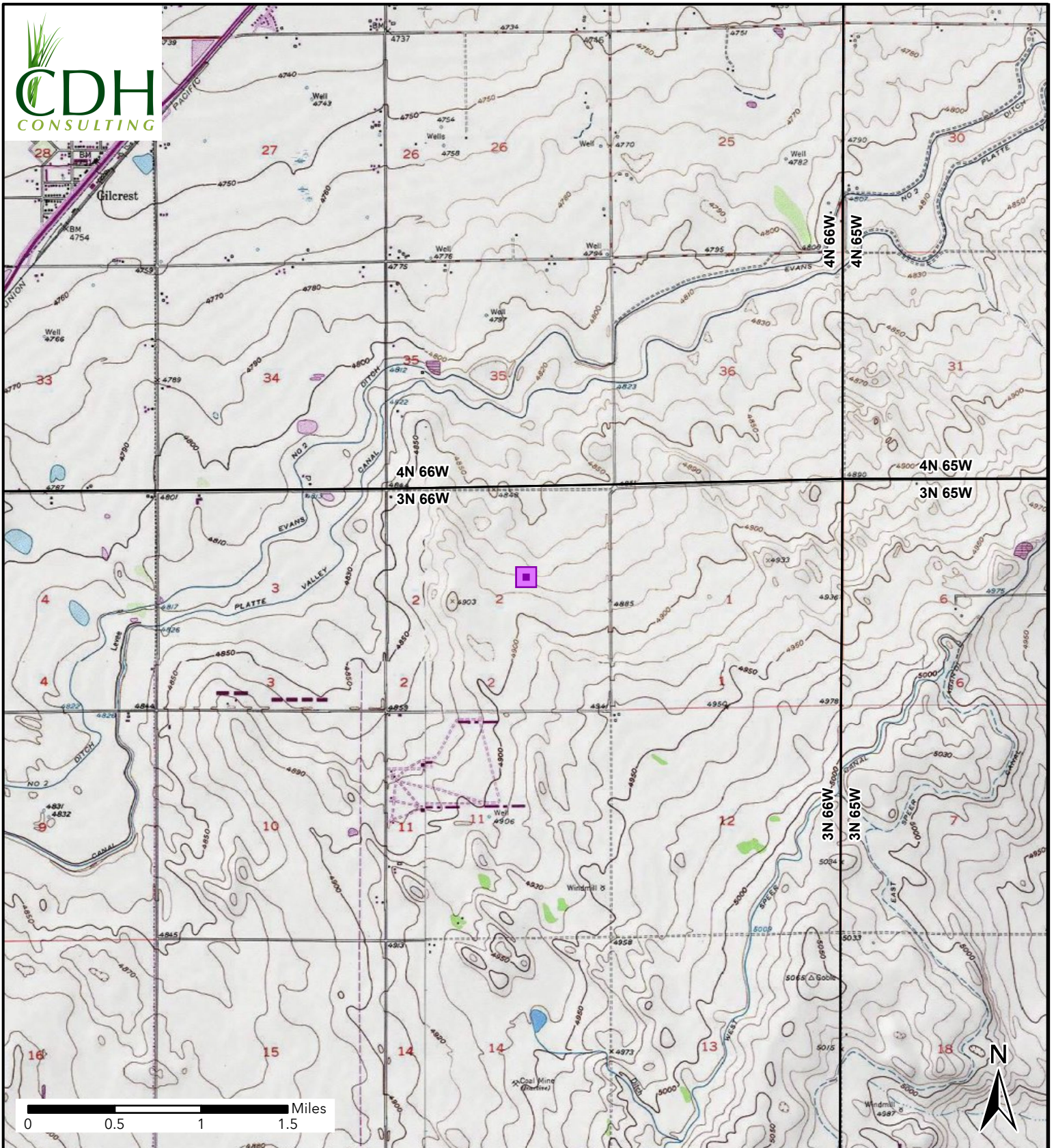


Figure 1
Site Location
MILE HIGH TURKEY 2-7 WH
L1-SEC 2-T3N-R66W
Weld County, Colorado
Chevron

 Site Location

WH-01-W@4'
 Date: 2/26/2025
 Arsenic: **3.48** mg/kg
 Barium: **102** mg/kg

WH01-N@4'
 Date: 2/26/2025
 Arsenic: **2.75** mg/kg



WH01-E@4'
 Date: 2/26/2025
 Arsenic: **3.44** mg/kg
 Barium: **91.8** mg/kg

WH-01@6'
 Date: 2/26/2025
 Arsenic: **3.96** mg/kg
 Barium: **117** mg/kg
 Lead: **18.6** mg/kg

WH01-S@4'
 Date: 2/26/2025
 Arsenic: **4.28** mg/kg
 Barium: **100** mg/kg

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



Figure 2
Soil Sample
Location Map
 MILE HIGH TURKEY 2-7 WH
 L1-SEC 2-T3N-R66W
 Weld County, Colorado
 Chevron

- Soil Sample
- Existing Excavation



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TABLES

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
MILE HIGH TURKEY 2-7K, WELD COUNTY, COLORADO
REM # 39565

Sample ID	Sample Date	Depth (ft)	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
WH-01@6'	2/26/2025	6	40.255378	-104.741953	1.000000	0.0
WH01-N@4'	2/26/2025	4	40.255396	-104.741959	1.000000	0.0
WH01-E@4'	2/26/2025	4	40.255380	-104.741938	0.900000	0.7
WH01-S@4'	2/26/2025	4	40.255364	-104.741954	1.100000	0.0
WH-01-W@4'	2/26/2025	4	40.255387	-104.741989	1.000000	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
MILE HIGH TURKEY 2-7K, WELD COUNTY, COLORADO
REM # 39565

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**		
WH-01@6'	2/26/2025	6	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00363	<125.200	<0.200	<25.0	<100
WH01-N@4'	2/26/2025	4	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00362	<125.200	<0.200	<25.0	<100
WH01-E@4'	2/26/2025	4	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00375	<125.200	<0.200	<25.0	<100
WH01-S@4'	2/26/2025	4	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00358	<125.200	<0.200	<25.0	<100
WH-01-W@4'	2/26/2025	4	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00354	<125.200	<0.200	<25.0	<100

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
AP = Analysis pending
NA = Not analyzed

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE 100322
MILE HIGH TURKEY 2-7K, WELD COUNTY, COLORADO
REM # 39565

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
WH-01@6'	2/26/2025	6	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	<0.00363	0.00218	0.00254
WH01-N@4'	2/26/2025	4	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362	<0.00362
WH01-E@4'	2/26/2025	4	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375	<0.00375
WH01-S@4'	2/26/2025	4	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358	<0.00358
WH-01-W@4'	2/26/2025	4	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354	<0.00354

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
AP = Analysis pending
NA = Not analyzed

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
MILE HIGH TURKEY 2-7K, WELD COUNTY, COLORADO
REM # 39565

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
WH-01@6'	2/26/2025	6	8.23	0.965	2.52	0.780
WH01-N@4'	2/26/2025	4	8.05	0.487	0.488	0.234
WH01-E@4'	2/26/2025	4	8.17	1.03	1.52	0.352
WH01-S@4'	2/26/2025	4	8.23	1.05	1.94	0.325
WH-01-W@4'	2/26/2025	4	8.15	0.832	1.33	0.180
Maximum Background Concentration			NA	NA	NA	NA

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.

AP = Analysis pending

NA = Not analyzed

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
MILE HIGH TURKEY 2-7K, WELD COUNTY, COLORADO
REM # 39565

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
WH-01@6'	2/26/2025	6	3.96	117	0.135	<0.382 *	<9.65	18.6	7.80	<0.251	<0.0965	45.0
WH01-N@4'	2/26/2025	4	2.75	75.8	0.141	<0.321 *	9.75	8.39	6.74	<0.252	<0.0969	42.7
WH01-E@4'	2/26/2025	4	3.44	91.8	0.124	<0.311 *	<9.04	8.99	8.37	<0.235	<0.0904	41.2
WH01-S@4'	2/26/2025	4	4.28	100	0.159	<0.360 *	9.99	9.59	10.1	<0.220	<0.0845	42.4
WH-01-W@4'	2/26/2025	4	3.48	102	0.110	<0.337 *	<9.18	7.77	9.34	<0.239	<0.0918	37.7
1.25x Maximum Background Concentration			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

- Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
- Red** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
- Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
- 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

* Indicates laboratory minimum detection limit in excess of SSL

AP = Analysis pending

NA = Not analyzed



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ATTACHMENT A
PHOTOGRAPHIC LOG

Attachment A - Photographic Log

MILE HIGH TURKEY 2-7K

Chevron REM #39565

2/26/2025



Photo 1: View of excavation, facing northeast-east

Attachment A - Photographic Log

MILE HIGH TURKEY 2-7K

Chevron REM #39565

2/26/2025



Photo 2: View of excavation, facing southwest

Attachment A - Photographic Log

MILE HIGH TURKEY 2-7K

Chevron REM #39565

2/26/2025



Photo 3: View of excavation, facing north-northwest

Attachment A - Photographic Log

MILE HIGH TURKEY 2-7K

Chevron REM #39565

2/26/2025



Photo 4: View of excavation, facing northeast-east



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ATTACHMENT B
WELLHEAD CLOSURE CHECKLISTS

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: MLE HIGH TURKEY 2-7K #123-14965		Date: 2/26/2025					Remediation Project #: 39565		
Associated Wells: Mile High Turkey 2-7K		Age of Site: 4/14/1991					Number of Photos Attached: 4		
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) 40.255456, -104.742059							Estimated Facility Size ^(acres) : ~0.1 acre		
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)									
USCS Soil Type: Well graded sands (SW)				Estimated Depth to Groundwater: No groundwater encountered					
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed									
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed									
Wellhead(s)									
Well API	123-14965								
Age	4/14/1991								
Condition of surface around wellhead	Good								
PID Readings	0.7 ppm								
Condition of subsurface (staining)	Good								
PID Readings	0.7 ppm								
Sample taken? Location/Sample ID#	See attached								
Photo Number(s)	See attached								
Other observations regarding wellheads: Wellhead re-entry confirmation soil sampling									
Summary									
Was impacted soil identified? No Yes - less than 10 cubic yards Yes - more than 10 cubic yards									
Total number of samples field screened: 5				Total number of samples collected: 5					
Highest PID Reading: 0.7 ppm				Total number of samples submitted to lab for analysis: 5					
If more than 10 cubic yards of impacted soil were observed: N/A									
Vertical extent:				Estimated spill volume:					
Lateral extent:				Volume of soil removed:					
Is additional investigation required?									
Was groundwater encountered during the investigation? No Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils									
Measured depth to groundwater:				Was remedial groundwater removal conducted?		Yes		No	
Date Groundwater was encountered:				Commencement date of removal:					
Sheen on groundwater?		Yes	No	Volume of groundwater removed prior to sampling:					
Free product observed?		Yes	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:									