

November 15, 2024

Noble – Branch 1-3

Groundwater Monitoring Report

API # 05-123-12513

NENE Sec 3, T4N, R64W

40.348483, -104.529653

Weld County, Colorado

Fremont Project No. C022-066

Facility # 323068, Remediation # 21830

Site Overview – Site History

In June 2022, a historical release was discovered within the produced water vault (PWV) excavation during decommissioning activities at the Branch facility. On June 29, 2022, a site investigation, utilizing a Geoprobe rig, advanced 10 soil borings delineating the magnitude and extent of soil impacts produced by the historical release. Excavation of impacted soil occurred in October 2022 and removed approximately 3,850 cubic yards of impacted soil. Soil samples collected from the south sidewall, east sidewall, west sidewall, and floor of the excavation achieved the ECMC Table 915- 1 protection of groundwater soil screening levels (PGSSLs). However, approximately 60 feet of the northern sidewall failed for benzene, 1,2,3-trimethylbenzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. Further excavation efforts to remove these impacts were not possible due to the presence of an overhead power line as well as an underground telephone line in the borrow ditch along County Road 50. As a result, soil impacts were left in place. Additionally, a groundwater sample (GW01) collected during excavation was reported with a concentration of benzene exceeding Table 915-1 standards.

Conceptual Site Model*

*Data presented represents the most recent sampling event

- **Land Use** – Cropland
- **Soil Type (USCS)** – SW/SP and CL
- **Potential Receptors within ¼ mile** – Occupied residence 478 feet E, livestock 775 feet SSW, stock water well 942 feet E
- **Inferred Groundwater Gradient (Ft/Ft) and Flow Direction** – 0.056 (ft/ft) northeast
- **Average Depth to Groundwater** – 9.75 feet (9 to 11 feet bgs)
- **Impacted Media and Extent** – Soil and Groundwater
- **LNAPL Present** – No
- **Points of Compliance** – TBD
- **Number of Consecutive ECMC Compliant Quarters** – 1
- **Remediation Type** – Excavation and MNA

Contaminants of Concern (COC)

The laboratory data indicate that the dissolved phase organic constituents were below their respective ECMC Table 915-1 standards in all of the wells sampled during the August 2024 quarterly monitoring event. The groundwater analytical data are summarized in Table 1 and illustrated on Figure 4. A copy of the laboratory's report, quality control data, and chain-of-custody documentation is attached.

Remedial Actions

Monitored natural attenuation (MNA) will be implemented at the site to address dissolved phase groundwater impacts. A no further action designation will be requested from the ECMC following observation of four consecutive quarters of groundwater compliant with the applicable ECMC Table 915-1 standards, under static conditions, at the site. The Q3 2024 sampling event marks the first quarter of ECMC compliant groundwater at the site.

Remarks

The discussion and conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

Please contact me at (970) 213-7488 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

This report was prepared by **FREMONT ENVIRONMENTAL INC.**



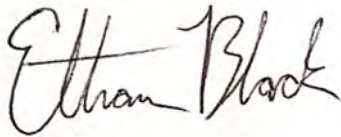
11/15/2024

Date_____

Chris Lattes

Consultant

Reviewed by:



11/15/2024

Date_____

Ethan D. Black, P.G.

Geologist

Attachments:

Tables

Figures

Boring Logs

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE 100322
BRANCH 1-3, WELD COUNTY, COLORADO
REM # 21830

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**		
AST-Cen Surface	6/6/2022	Surface	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	2.9	55	<50
FL01 4ft	6/6/2022	4.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	<50	<50
PWV-Floor 5ft	6/6/2022	5.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	0.59	110	<50
PWV-N Wall 4ft	6/6/2022	4.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	0.035	<0.0050	<0.0038	<500	6.4	490	44.5
Sep B-Point Surface	6/6/2022	Surface	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	<50	<50
SB-1 5 ft	6/29/2022	5.0 Ft	0.017	<0.0050	<0.0050	0.3	0.29	0.086	0.026	<500	9.6	<50	<50
SB-1 8 ft	6/29/2022	8.0 Ft	0.22	<0.050	1.2	5.1	5.6	1	0.37	<500	190	100	<50
SB-1 12 ft	6/29/2022	12.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	<50	<50
SB-2 2 ft	6/29/2022	2.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	0.007	<0.0050	0.0051	<500	<0.5	<50	<50
SB-2 8 ft	6/29/2022	8.0 Ft	0.023	<0.0050	0.009	<0.010	7.7	<0.0050	0.9	>500	580	230	<50
SB-3 4 ft	6/29/2022	4.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	<50	<50
SB-3 7 ft	6/29/2022	7.0 Ft	0.62	<0.0050	4.6	<0.010	39	<0.0050	2.2	>500	1200	1500	180
SB-4 4 ft	6/29/2022	4.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	<50	<50
SB-4 8 ft	6/29/2022	8.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	<50	<50
SB-5 6 ft	6/29/2022	6.0 Ft	0.0064	<0.0050	0.01	0.12	0.63	0.051	0.022	<500	12	<50	<50
SB-5 12 ft	6/29/2022	12.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	0.0075	<0.0050	<0.0038	<500	<0.5	<50	<50
SB-5 8 ft	6/29/2022	8.0 Ft	0.02	<0.0050	0.22	2.8	5.4	2.1	0.21	<500	130	120	<50
SB-6 4 ft	6/29/2022	4.0 FT	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	0.0094	>500	2300	2000	260
SB-6 8 ft	6/29/2022	8.0 Ft	0.11	<0.0050	2.9	<0.010	35	<0.0050	1.8	>500	990	710	99
SB-7 3 ft	6/29/2022	3.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	0.45	<0.0050	0.015	<500	24	79	<50
SB-7 8 ft	6/29/2022	8.0 Ft	0.0052	<0.0050	0.017	<0.010	0.066	<0.0050	0.012	<500	58	240	<50
SB-8 9 ft	6/29/2022	9.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	57	<50
SB-8 12 ft	6/29/2022	12.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	<50	<50
SB-9 2 ft	6/29/2022	2.0 Ft	0.0087	<0.0050	<0.0050	<0.010	<0.0050	0.0079	<0.0038	<500	8.4	190	<50
SB-9 8 ft	6/29/2022	8.0 Ft	<0.0020	<0.0050	0.023	<0.010	0.018	<0.0050	0.011	<500	25	160	<50
SB-10 6 ft	6/29/2022	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.5	190	<50
SB-10 12 ft	6/29/2022	12.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	2.2	<50	<50
S01@7.0'	9/20/2022	7.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
WCS01@4.0'	9/23/2022	4.0 Ft	3.4	4	8.9	84	83	26	4.9	>500	3100	6300	580
E01@10.0'	9/26/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	1.4	140	<50
S02@10.0'	9/26/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
S03@10.0'	9/27/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	4.9	290	55

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**		
S04@10.0'	9/28/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
B01@11.0'	9/28/2022	11.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
W-S WALL 11Ft	9/30/2022	11.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
W Wall 7Ft	9/30/2022	7.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
B02@11.0'	10/3/2022	11.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
E02@10.0'	10/4/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	90	<50
E03@10.0'	10/5/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	13	280	62
B03@12.0'	10/6/2022	12.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	0.020	<0.0050	0.0070	<500	1.1	82	<50
N01@10.0'	10/6/2022	10.0 Ft	0.028	<0.0050	0.028	<0.010	0.036	<0.0050	0.0082	<500	12	85	<50
B04@13.0'	10/7/2022	13.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
B05@13.0'	10/7/2022	13.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
B06@12.0'	10/7/2022	12.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
N02@10.0'	10/10/2022	10.0 Ft	0.2	<0.0050	0.31	<0.010	0.59	<0.0050	0.11	<500	25	170	<50
B07@12.0'	10/11/2022	12.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
B08@12.0'	10/12/2022	12.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
N03@10.0'	10/12/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	160	<50
W02@10.0'	10/12/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
B09@11'	10/13/2022	11.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
S05@10'	10/13/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
S06@10'	10/13/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
W03@10'	10/13/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
W05@10'	10/14/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
S08@10'	10/14/2022	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
W01@9.0'	10/14/2022	9.0 Ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stock01	10/14/2022	N/A	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
MW1 11FT	08/14/2024	11.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	2.1	110	<50
MW1 6FT	08/14/2024	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
MW2 17FT	08/14/2024	17.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
MW2 8FT	08/14/2024	8.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
MW3 15FT	08/14/2024	15.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
MW3 6FT	08/14/2024	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
MW4 13FT	08/14/2024	13.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	0.7	<50	<50
MW4 8FT	08/14/2024	8.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
MW5 14FT	08/14/2024	14.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
MW5 4FT	08/14/2024	4.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
N01 (2) 10FT	08/14/2024	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

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**		
N02 (2) 10FT	08/14/2024	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
N03 (2) 10FT	08/14/2024	10.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

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

NA - Not analyzed

= Source material characterization sample, excavated and transported off site for disposal.

= Material excavated and transported off site for disposal.

TABLE 2
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE 100322
BRANCH 1-3, WELD COUNTY, COLORADO
REM # 21830

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
AST-Cen Surface	6/6/2022	Surface	<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
FL01 4ft	6/6/2022	4.0 Ft	<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
PWV-Floor 5ft	6/6/2022	5.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0169	0.0148
PWV-N Wall 4ft	6/6/2022	4.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.297	0.606
Sep B-Point Surface	6/6/2022	Surface	<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
SB-1 5 ft	6/29/2022	5.0 Ft	0.00877	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00704	<0.00500	<0.00500	0.0183	<0.00500	<0.00500	0.0759	0.148
SB-1 8 ft	6/29/2022	8.0 Ft	0.0148	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00848	<0.00500	<0.00500	0.0267	<0.00500	<0.00500	0.0529	0.0899
SB-1 12 ft	6/29/2022	12.0 Ft	<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
SB-2 2 ft	6/29/2022	2.0 Ft	0.0351	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0262	<0.00500	0.0121	0.053	<0.00500	0.00754	0.246	0.132
SB-2 8 ft	6/29/2022	8.0 Ft	0.0317	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0199	<0.00500	0.00973	0.0496	<0.00500	0.00588	0.333	0.186
SB-3 4 ft	6/29/2022	4.0 Ft	0.00901	0.0825	<0.00500	<0.00500	<0.00500	<0.00500	0.014	<0.00500	0.00784	0.0466	<0.00500	<0.00500	0.0999	0.0405
SB-3 7 ft	6/29/2022	7.0 Ft	0.0154	<0.00500	<0.00500	<0.00500	0.00543	<0.00500	0.0225	<0.00500	<0.00500	0.0283	<0.00500	<0.00500	0.108	0.0683
SB-4 4 ft	6/29/2022	4.0 Ft	<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
SB-4 8 ft	6/29/2022	8.0 Ft	<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
SB-5 6 ft	6/29/2022	6.0 Ft	0.0127	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00741	<0.00500	<0.00500	0.0223	<0.00500	<0.00500	0.0213	<0.00500
SB-5 12 ft	6/29/2022	12.0 Ft	<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
SB-5 8 ft	6/29/2022	8.0 Ft	0.0632	0.886	<0.00500	<0.00500	<0.00500	<0.00500	0.105	<0.00500	0.0203	0.134	<0.00500	<0.00500	0.351	0.218
SB-6 4 ft	6/29/2022	4.0 FT	<0.00500	0.0760	<0.00500	<0.00500	<0.00500	<0.00500	0.0682	<0.00500	0.0285	0.0282	<0.00500	0.0216	<0.00500	<0.00500
SB-6 8 ft	6/29/2022	8.0 Ft	0.0557	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0348	<0.00500	<0.00500	0.0681	<0.00500	0.014	0.0997	0.155
SB-7 3 ft	6/29/2022	3.0 Ft	0.0156	<0.00500	<0.00500	<0.00500	0.00598	<0.00500	0.0228	<0.00500	<0.00500	0.0288	<0.00500	<0.00500	0.105	0.0699
SB-7 8 ft	6/29/2022	8.0 Ft	0.0201	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0397	<0.00500	0.0183	0.0879	<0.00500	0.0153	0.171	0.192
SB-8 9 ft	6/29/2022	9.0 Ft	<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
SB-8 12 ft	6/29/2022	12.0 Ft	<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
SB-9 2 ft	6/29/2022	2.0 Ft	<0.00500	<0.100	<0.100	0.0141	0.00957	<0.100	<0.100	<0.100	<0.100	0.401	<0.100	<0.100	3.54	3.50
SB-9 8 ft	6/29/2022	8.0 Ft	0.0326	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0219	<0.00500	0.0115	0.0518	<0.00500	0.00735	0.322	0.171
SB-10 6 ft	6/29/2022	6.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0138	<0.00500	<0.00500	0.0273	<0.00500	<0.00500	0.0246	<0.00500
SB-10 12 ft	6/29/2022	12.0 Ft	<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
S01@7.0'	9/20/2022	7.0 Ft	<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
WCS01@4.0'	9/23/2022	4.0 Ft	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.141	<0.0500	<0.0500	0.490	<0.0500	<0.0500	1.56	6.82
E01@10.0'	9/26/2022	10.0 Ft	<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
S02@10.0'	9/26/2022	10.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0181	<0.00500	<0.00500	0.213	0.334
S03@10.0'	9/27/2022	10.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0111	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
S04@10.0'	9/28/2022	10.0 Ft	<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
B01@11.0'	9/28/2022	11.0 Ft	<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
W-S WALL 11ft	9/30/2022	11.0 Ft	<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
W Wall 7ft	9/30/2022	7.0 Ft	<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
B02@11.0'	10/3/2022	11.0 Ft	<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

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
E02@10.0'	10/4/2022	10.0 Ft	<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
E03@10.0'	10/5/2022	10.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0125	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
B03@12.0'	10/6/2022	12.0 Ft	<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
N01@10.0'	10/6/2022	10.0 Ft	<0.00500	0.00973	0.00700	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00583	<0.00500	<0.00500	0.0145	0.0415
B04@13.0'	10/7/2022	13.0 Ft	<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
B05@13.0'	10/7/2022	13.0 Ft	<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
B06@12.0'	10/7/2022	12.0 Ft	<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
N02@10.0'	10/10/2022	10.0 Ft	<0.00500	0.0382	<0.00500	<0.00500	<0.00500	<0.00500	0.00505	<0.00500	<0.00500	0.00778	<0.00500	<0.00500	0.110	0.184
B07@12.0'	10/11/2022	12.0 Ft	<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
B08@12.0'	10/12/2022	12.0 Ft	<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
N03@10.0'	10/12/2022	10.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00712	<0.00500	<0.00500	<0.00500	<0.00500
W02@10.0'	10/12/2022	10.0 Ft	<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
B09@11'	10/13/2022	11.0 Ft	<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
S05@10'	10/13/2022	10.0 Ft	<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
S06@10'	10/13/2022	10.0 Ft	<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
W03@10'	10/13/2022	10.0 Ft	<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
W05@10'	10/14/2022	10.0 Ft	<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
S08@10'	10/14/2022	10.0 Ft	<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
W01@9.0'	10/14/2022	9.0 Ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stock01	10/14/2022	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW1 11FT	08/14/2024	11.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0113	0.0169
MW1 6FT	08/14/2024	6.0 Ft	<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
MW2 17FT	08/14/2024	17.0 Ft	<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
MW2 8FT	08/14/2024	8.0 Ft	<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
MW3 15FT	08/14/2024	15.0 Ft	<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
MW3 6FT	08/14/2024	6.0 Ft	<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
MW4 13FT	08/14/2024	13.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00651	<0.00500	<0.00500	<0.00500	<0.00500
MW4 8FT	08/14/2024	8.0 Ft	<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
MW5 14FT	08/14/2024	14.0 Ft	<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
MW5 4FT	08/14/2024	4.0 Ft	<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
N01 (2) 10FT	08/14/2024	10.0 Ft	<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
N02 (2) 10FT	08/14/2024	10.0 Ft	<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
N03 (2) 10FT	08/14/2024	10.0 Ft	<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

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

NA - Not analyzed

= Source material characterization sample, excavated and transported off site for disposal.

= Material excavated and transported off site for disposal.

TABLE 3
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
BRANCH 1-3, WELD COUNTY, COLORADO
REM # 21830

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
AST-Cen Surface	6/6/2022	Surface	6.08	0.203	1.33	0.0793
FL01 4ft	6/6/2022	4.0 Ft	7.91	1.37	0.250	0.118
PWV-Floor 5ft	6/6/2022	5.0 Ft	7.57	0.521	0.334	0.0376
PWV-N Wall 4ft	6/6/2022	4.0 Ft	7.21	0.984	0.194	0.0308
Sep B-Point Surface	6/6/2022	Surface	7.58	2.92	0.758	0.0421
S01@7.0'	9/20/2022	7.0 Ft	8.08	1.07	4.61	0.247
BKG01@7.0'	9/21/2022	7.0 Ft	7.81	3.0	7.20	0.261
WCS01@4.0'	9/23/2022	4.0 Ft	8.10	1.68	7.31	0.289
E01@10.0'	9/26/2022	10.0 Ft	8.07	5.45	9.35	0.327
S02@10.0'	9/26/2022	10.0 Ft	7.91	3.58	7.00	0.315
S03@10.0'	9/27/2022	10.0 Ft	8.14	3.44	7.65	0.319
S04@10.0'	9/28/2022	10.0 Ft	7.58	2.85	6.21	0.256
B01@11.0'	9/28/2022	11.0 Ft	7.54	3.44	7.31	0.296
W-S WALL 11Ft	9/30/2022	11.0 Ft	NA	NA	NA	NA
W Wall 7Ft	9/30/2022	7.0 Ft	NA	NA	NA	NA
B02@11.0'	10/3/2022	11.0 Ft	7.65	6.52	9.89	0.325
E02@10.0'	10/4/2022	10.0 Ft	7.70	6.39	7.59	0.422
E03@10.0'	10/5/2022	10.0 Ft	8.10	2.53	11.4	0.426
B03@12.0'	10/6/2022	12.0 Ft	8.02	0.701	5.73	0.277
N01@10.0'	10/6/2022	10.0 Ft	8.44	0.941	5.54	0.382
B04@13.0'	10/7/2022	13.0 Ft	8.02	1.38	7.79	0.206
B05@13.0'	10/7/2022	13.0 Ft	8.35	0.767	7.65	0.253

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
B06@12.0'	10/7/2022	12.0 Ft	8.19	1.43	9.33	0.384
N02@10.0'	10/10/2022	10.0 Ft	8.03	0.649	7.44	0.367
B07@12.0'	10/11/2022	12.0 Ft	8.45	1.02	8.95	0.710
B08@12.0'	10/12/2022	12.0 Ft	8.13	1.58	9.30	0.421
N03@10.0'	10/12/2022	10.0 Ft	8.17	0.988	8.19	0.335
W02@10.0'	10/12/2022	10.0 Ft	7.96	2.11	8.33	0.347
B09@11'	10/13/2022	11.0 Ft	7.90	3.31	7.63	0.469
S05@10'	10/13/2022	10.0 Ft	8.00	2.98	11.1	0.865
S06@10'	10/13/2022	10.0 Ft	8.04	1.58	7.02	0.452
W03@10'	10/13/2022	10.0 Ft	8.01	2.17	8.03	0.552
W05@10'	10/14/2022	10.0 Ft	7.93	3.06	7.40	0.470
S08@10'	10/14/2022	10.0 Ft	7.93	3.76	9.10	0.522
W01@9.0'	10/14/2022	9.0 Ft	8.28	0.846	5.33	0.310
Stock01	10/14/2022	N/A	NA	NA	NA	NA
MW1 11FT	08/14/2024	11.0 Ft	8.43	1.30	7.81	<2.00
MW1 6FT	08/14/2024	6.0 Ft	7.77	1.91	2.91	<2.00
MW2 17FT	08/14/2024	17.0 Ft	8.13	1.16	3.81	<2.00
MW2 8FT	08/14/2024	8.0 Ft	7.80	4.52	7.26	<2.00
MW3 15FT	08/14/2024	15.0 Ft	8.41	0.833	5.65	<2.00
MW3 6FT	08/14/2024	6.0 Ft	7.35	0.891	1.84	<2.00
MW4 13FT	08/14/2024	13.0 Ft	8.72	1.20	8.92	<2.00
MW4 8FT	08/14/2024	8.0 Ft	8.01	2.02	3.65	<2.00
MW5 14FT	08/14/2024	14.0 Ft	7.94	1.40	3.48	<2.00
MW5 4FT	08/14/2024	4.0 Ft	7.90	1.53	2.46	<2.00
N01 (2) 10FT	08/14/2024	10.0 Ft	8.14	1.11	4.97	<2.00
N02 (2) 10FT	08/14/2024	10.0 Ft	8.07	1.62	3.11	<2.00

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
N03 (2) 10FT	08/14/2024	10.0 Ft	8.12	1.92	6.77	<2.00
Maximum Root Background Concentration (0 - 3 ft)			NA	NA	NA	NA
Average Root Background Concentration (0 - 3 ft)			NA	NA	NA	NA
Maximum Background Concentration			7.81	3.0	7.20	0.261
Average Background Concentration			N/A	N/A	N/A	N/A

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

2. Blue highlighted soil analytical values indicate a regulatory exceedance

NA - Not analyzed

 = Source material characterization sample, excavated and transported off site for disposal.

 = Material excavated and transported off site for disposal.

TABLE 4
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
BRANCH 1-3, WELD COUNTY, COLORADO
REM # 21830

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
S01@7.0'	9/20/2022	7.0 Ft	1.81	51.0	<0.211	<0.30	4.28	4.86	4.55	0.501	<0.0211	8.9
BKG01@7.0'	9/21/2022	7.0 Ft	3.16	31.1	<0.218	<0.30	5.20	5.12	6.49	0.487	<0.0218	29.1
WCS01@4.0'	9/23/2022	4.0 Ft	3.42	92.0	<0.227	28.9	<0.30	7.25	5.44	7.18	0.688	<0.0227
E01@10.0'	9/26/2022	10.0 Ft	1.43	50.5	<0.244	<0.30	2.69	3.42	3.25	0.381	<0.0244	13.3
S02@10.0'	9/26/2022	10.0 Ft	1.16	19.1	<0.240	<0.30	8.27	6.59	2.45	0.407	<0.0240	19.9
S03@10.0'	9/27/2022	10.0 Ft	26.9	143	<0.240	<0.30	17.3	14.6	16.1	1.50	<0.0240	69.0
S04@10.0'	9/28/2022	10.0 Ft	8.11	68.1	<0.237	<0.30	15.3	14.4	16.2	1.34	0.0244	70.6
B01@11.0'	9/28/2022	11.0 Ft	8.05	53.7	<0.233	<0.30	12.3	9.12	14	1.11	0.0256	65.6
W-S WALL 11Ft	9/30/2022	11.0 Ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
W Wall 7Ft	9/30/2022	7.0 Ft	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B02@11.0'	10/3/2022	11.0 Ft	1.74	64.0	<0.213	<0.30	3.42	3.87	4.28	0.557	<0.0213	16.2
E02@10.0'	10/4/2022	10.0 Ft	5.29	41.6	<0.240	<0.30	7.16	9.54	7.52	0.717	<0.0240	38.1
E03@10.0'	10/5/2022	10.0 Ft	7.65	89.1	<0.244	<0.30	8.39	9.29	11.4	0.863	<0.0244	49.9
B03@12.0'	10/6/2022	12.0 Ft	7.69	87.9	<0.241	<0.30	15.6	13.3	17.0	1.17	0.0301	74.4
N01@10.0'	10/6/2022	10.0 Ft	6.04	67.8	<0.236	<0.30	6.70	7.44	9.24	0.743	<0.0236	39.2
B04@13.0'	10/7/2022	13.0 Ft	1.86	40.1	<0.243	<0.30	8.04	18.8	8.47	<0.316	0.0384	36.8
B05@13.0'	10/7/2022	13.0 Ft	1.72	67.9	<0.243	<0.30	6.87	15.7	8.31	<0.315	0.0393	35.4
B06@12.0'	10/7/2022	12.0 Ft	1.65	64.5	0.253	<0.30	8.06	16.1	8.20	<0.314	0.0372	38.0
N02@10.0'	10/10/2022	10.0 Ft	7.94	85.4	<0.233	<0.30	13.5	11.0	14.6	0.930	<0.0233	62.5
B07@12.0'	10/11/2022	12.0 Ft	1.89	35.6	<0.240	<0.30	9.23	19.4	8.05	0.328	0.0350	37.5
B08@12.0'	10/12/2022	12.0 Ft	1.26	18.9	<0.239	<0.30	6.01	9.21	7.41	<0.311	0.165	32.6
N03@10.0'	10/12/2022	10.0 Ft	2.27	106	<0.244	<0.30	7.92	12.1	8.65	<0.317	0.171	34.6
W02@10.0'	10/12/2022	10.0 Ft	2.19	306	<0.240	<0.30	8.46	15.4	8.55	<0.312	0.162	37.7
B09@11'	10/13/2022	11.0 Ft	3.38	44.0	<0.241	<0.30	8.09	14.7	8.44	<0.314	0.0367	37.7
S05@10'	10/13/2022	10.0 Ft	1.98	29.4	<0.241	<0.30	8.42	15.9	8.53	<0.313	0.0366	37.0
S06@10'	10/13/2022	10.0 Ft	1.92	42.2	<0.237	<0.30	7.72	13.4	8.18	<0.308	0.0308	35.6
W03@10'	10/13/2022	10.0 Ft	1.44	44.4	<0.241	<0.30	6.96	13.8	7.78	<0.313	0.0366	33.9
W05@10'	10/14/2022	10.0 Ft	2.13	34.4	<0.238	<0.30	8.86	15.8	8.68	<0.309	2.27	39.0
S08@10'	10/14/2022	10.0 Ft	2.20	57.8	<0.237	<0.30	8.12	14.3	9.18	<0.308	2.17	39.7

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
W01@9.0'	10/14/2022	9.0 Ft	2.10	50.4	0.237	<0.30	5.31	6.66	6.33	<0.290	1.87	21.1
Stock01	10/14/2022	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW1 11FT	08/14/2024	11.0 Ft	4.62	57.5	<0.200	<0.30	6.72	13.4	6.99	<0.260	0.0273	32.8
MW1 6FT	08/14/2024	6.0 Ft	1.16	47.1	<0.200	<0.30	4.46	6.20	3.40	<0.260	0.0264	16.6
MW2 17FT	08/14/2024	17.0 Ft	2.20	145	<0.200	<0.30	4.52	5.65	4.11	<0.260	0.0212	17.5
MW2 8FT	08/14/2024	8.0 Ft	1.38	54.3	0.203	<0.30	4.16	6.37	3.20	<0.260	0.0367	16.1
MW3 15FT	08/14/2024	15.0 Ft	3.30	24.7	0.224	<0.30	7.10	16.4	7.31	<0.260	0.0276	32.0
MW3 6FT	08/14/2024	6.0 Ft	1.55	68.2	0.210	<0.30	4.42	6.12	4.88	<0.260	0.0225	16.4
MW4 13FT	08/14/2024	13.0 Ft	3.63	18.9	0.413	<0.30	6.14	12.0	7.34	<0.260	0.0276	32.2
MW4 8FT	08/14/2024	8.0 Ft	2.09	108	<0.200	<0.30	4.62	4.72	4.27	<0.260	0.0237	17.8
MW5 14FT	08/14/2024	14.0 Ft	1.51	97.0	<0.179	<0.30	3.07	3.87	2.59	<0.232	0.0182	11.7
MW5 4FT	08/14/2024	4.0 Ft	1.20	49.5	<0.200	<0.30	4.09	6.49	3.25	<0.260	0.0278	16.0
N01 (2) 10FT	08/14/2024	10.0 Ft	2.73	102	<0.200	<0.30	5.85	9.04	5.55	<0.260	0.0278	24.9
N02 (2) 10FT	08/14/2024	10.0 Ft	2.02	149	<0.200	<0.30	4.24	5.14	3.59	<0.260	0.0280	15.7
N03 (2) 10FT	08/14/2024	10.0 Ft	1.92	121	<0.180	<0.30	3.52	4.69	2.98	<0.234	0.0243	13.2
Maximum Root Zone Background Concentration (0 - 3 ft)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
125% Average Root Zone Background Concentration (0 - 3 ft)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Maximum Background Concentration			3.16	31.1	<0.218	<0.30	5.20	5.12	6.49	0.487	<0.0218	29.1
125% Average Background Concentration			3.95	38.9	<0.218	<0.30	6.50	6.40	8.11	0.609	<0.0218	36.4

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)

* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

= Source material characterization sample, excavated and transported off site for disposal.

= Material excavated and transported off site for disposal.

TABLE 5
SUMMARY OF GROUNDWATER ELEVATION DATA AND ORGANIC CHEMISTRY DATA
NOBLE 100322
BRANCH 1-3, WELD COUNTY, COLORADO
REM # 21830

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- Trimethyl- Benzene (µg/L)	1,3,5- Trimethyl- Benzene (µg/L)	TOC Elevation (ft)	Depth to Groundwater Below TOC (ft)	Groundwater Elevation (ft)	LNAPL Thickness (ft)
ECMC Table 915-1 Limits		5.0	560	700	1400	140	67	67				
MW 1	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.00	11.20	88.80	NP
MW 2	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	98.10	8.62	89.48	NP
MW 3	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	99.93	10.10	89.83	NP
MW 4	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.05	9.38	90.67	NP
MW 5	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.17	9.45	90.72	NP

1. Bold values exceed the ECMC limit(s)

2. Red highlighted groundwater analytical values indicate a regulatory exceedance

NP - No measurable LNAPL, NA - Not Analyzed, INA - Inaccessible, IW - Insufficient Water, DES - Destroyed

TABLE 6
SUMMARY OF INORGANIC GROUNDWATER CHEMISTRY DATA
NOBLE 100322
BRANCH 1-3, WELD COUNTY, COLORADO
REM # 21830

Sample ID	Sample Date	Total Dissolved Solids (mg/L)	Chloride Ion (mg/L)	Sulfate Ion (mg/L)
ECMC Table 915-1 Limits		<1.25 x local background	250 or <1.25 x local background	250 or <1.25 x local background
MW 1	08/16/2024	4780	1660	2040
MW 2	08/16/2024	4770	1610	2050
MW 3	08/16/2024	5570	1600	2740
MW 4	08/16/2024	4630	1410	2030
MW 5	08/16/2024	4400	1500	1450
Background Concentration (MW-5)		-	-	-

1. Bold values exceed the ECMC limit(s)

2. Blue highlighted groundwater analytical values indicate a regulatory exceedance

NP - No measurable LNAPL, NA - Not Analyzed, INA - Inaccessible, IW - Insufficient Water, DES - Destroyed

TABLE 1
SUMMARY OF GROUNDWATER ELEVATION DATA AND ORGANIC CHEMISTRY DATA
NOBLE 100322
BRANCH 1-3, WELD COUNTY, COLORADO
REM # 21830

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- Trimethyl- Benzene (µg/L)	1,3,5- Trimethyl- Benzene (µg/L)	TOC Elevation (ft)	Depth to Groundwater Below TOC (ft)	Groundwater Elevation (ft)	LNAPL Thickness (ft)
ECMC Table 915-1 Limits		5.0	560	700	1400	140	67	67				
MW 1	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.00	11.20	88.80	NP
MW 2	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	98.10	8.62	89.48	NP
MW 3	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	99.93	10.10	89.83	NP
MW 4	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.05	9.38	90.67	NP
MW 5	08/16/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.17	9.45	90.72	NP

1. Bold values exceed the ECMC limit(s)

2. Red highlighted groundwater analytical values indicate a regulatory exceedance

NP - No measurable LNAPL, NA - Not Analyzed, INA - Inaccessible, IW - Insufficient Water, DES - Destroyed

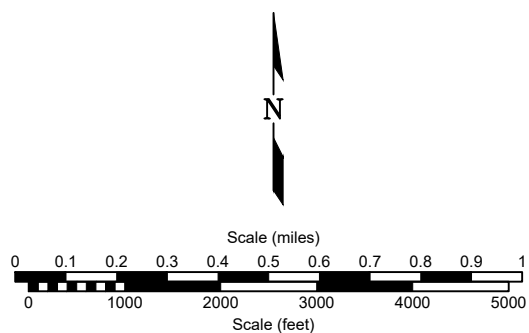
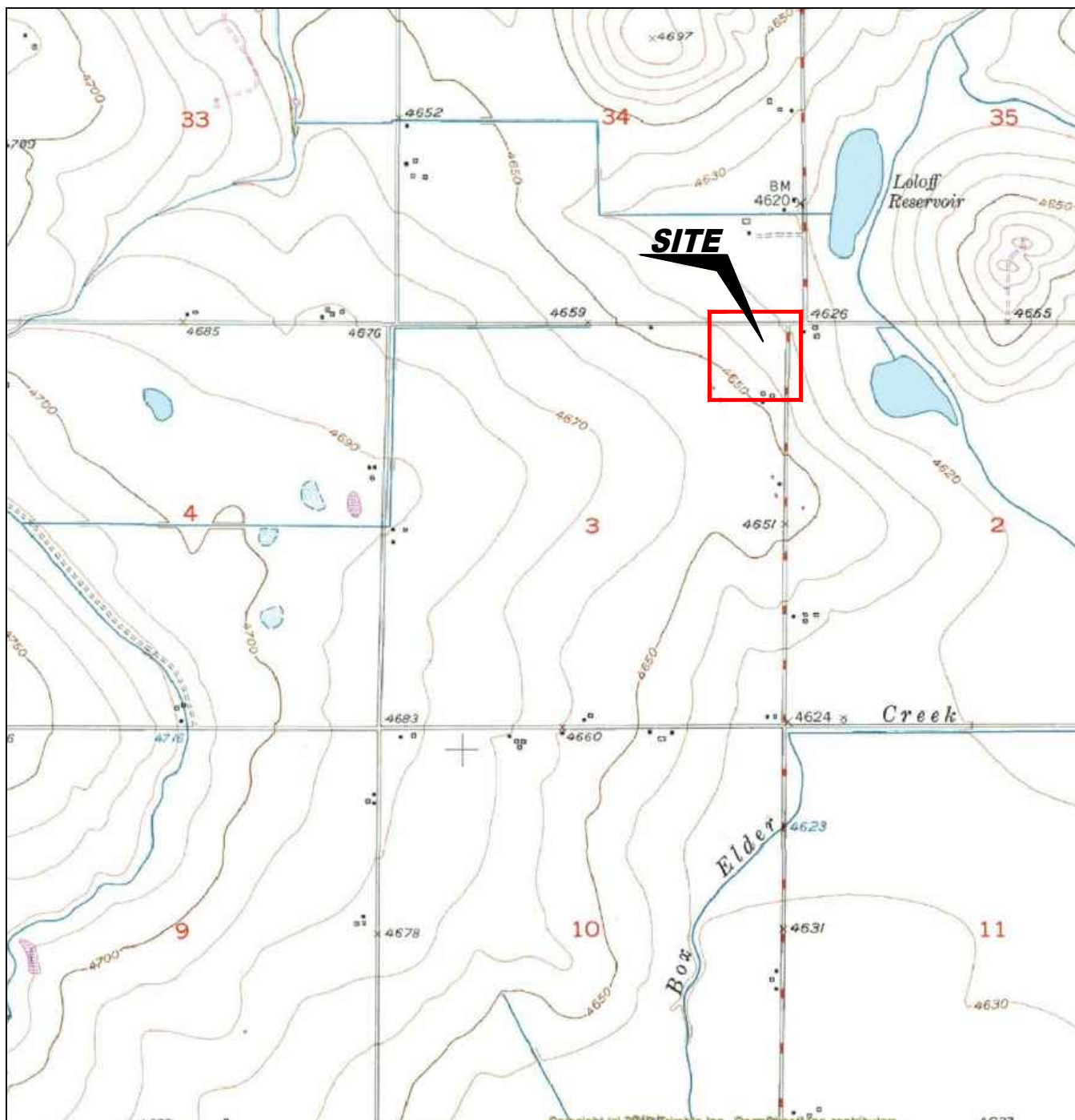
TABLE 2
SUMMARY OF INORGANIC GROUNDWATER CHEMISTRY DATA
NOBLE 100322
BRANCH 1-3, WELD COUNTY, COLORADO
REM # 21830

Sample ID	Sample Date	Total Dissolved Solids (mg/L)	Chloride Ion (mg/L)	Sulfate Ion (mg/L)
ECMC Table 915-1 Limits		<1.25 x local background	250 or <1.25 x local background	250 or <1.25 x local background
MW 1	08/16/2024	4780	1660	2040
MW 2	08/16/2024	4770	1610	2050
MW 3	08/16/2024	5570	1600	2740
MW 4	08/16/2024	4630	1410	2030
MW 5	08/16/2024	4400	1500	1450
Background Concentration (MW-5)		-	-	-

1. Bold values exceed the ECMC limit(s)

2. Blue highlighted groundwater analytical values indicate a regulatory exceedance

NP - No measurable LNAPL, NA - Not Analyzed, INA - Inaccessible, IW - Insufficient Water, DES - Destroyed



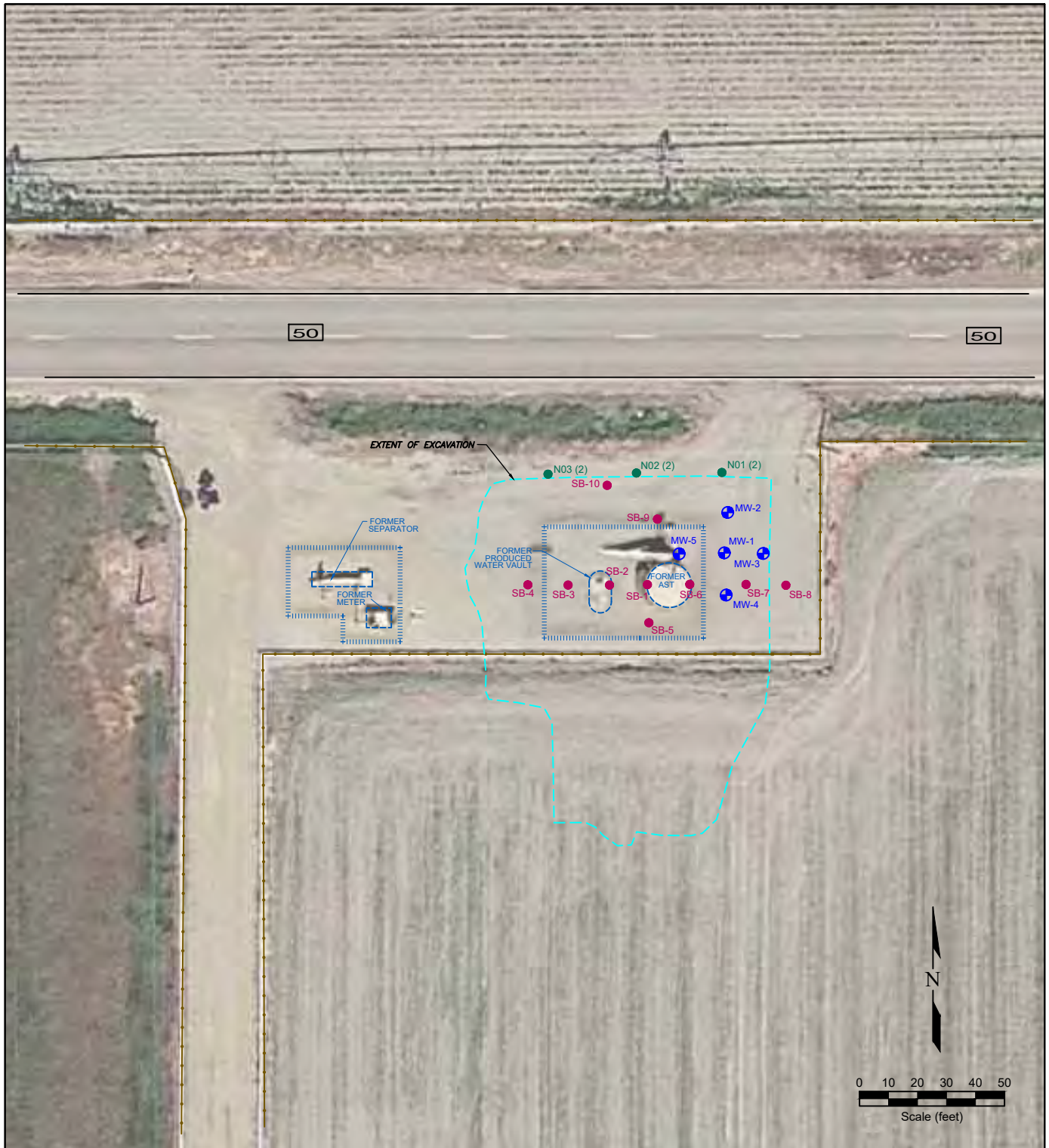
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

Noble Energy, Inc. ~ Branch 1-3
NENE Sec. 3, T4N, R64W, 6th PM
Weld County, Colorado
40.348412°, -104.529767°

Project # C022-066	API # 05-123-12513	Facility # 323068
Date 11/26/24	Remediation # 21830	Filename 22066T





LEGEND

● 2022 SOIL BORING	○ ABOVE GROUND STORAGE TANK	FORMER FACILITY	CONTAINMENT BERM
● 2024 SOIL BORING		FORMER FENCE LINE	EXTENT OF EXCAVATION
● MONITORING WELL			

Figure 2
SITE MAP

Noble Energy, Inc. ~ Branch 1-3
NENE Sec. 3, T4N, R64W, 6th PM
Weld County, Colorado
40.348412°, -104.529767°

Project No. C022-066	API # 05-123-12513	Facility # 323068
Date 11/26/24	Remediation # 21830	Filename 22066Q2





LEGEND

● 2022 SOIL BORING	○ ABOVE GROUND STORAGE TANK	FORMER FACILITY	CONTAINMENT BERM
● 2024 SOIL BORING		FORMER FACILITY	FENCE LINE
● MONITORING WELL		EXTENT OF EXCAVATION	CROSS SECTION CUT LINE
		B-B'	

Figure 3
CROSS SECTION MAP

Noble Energy, Inc. ~ Branch 1-3
NENE Sec. 3, T4N, R64W, 6th PM
Weld County, Colorado
40.348412°, -104.529767°

Project No. C022-066	API # 05-123-12513	Facility # 323068
Date 11/26/24	Remediation # 21830	Filename 22066Q2



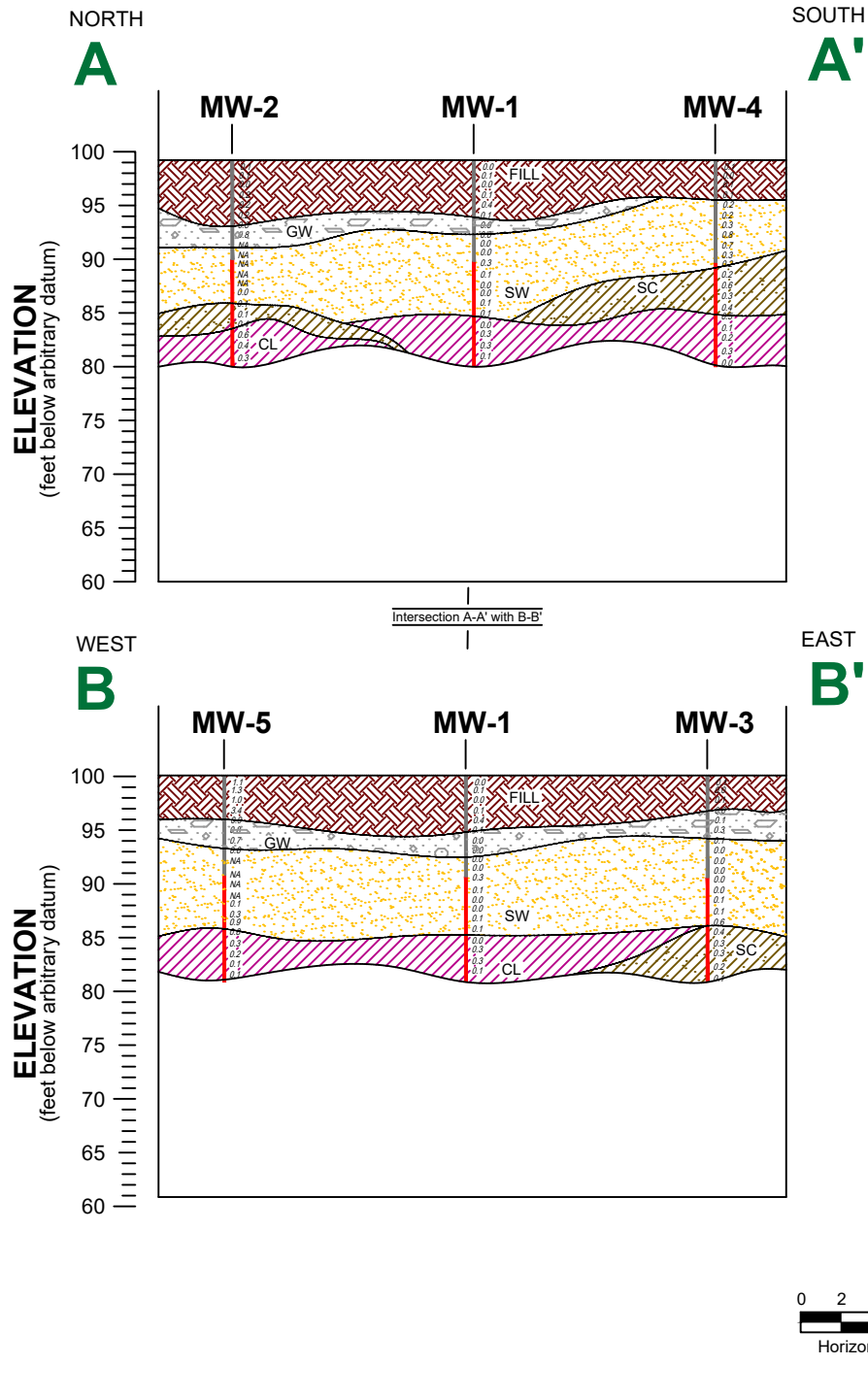
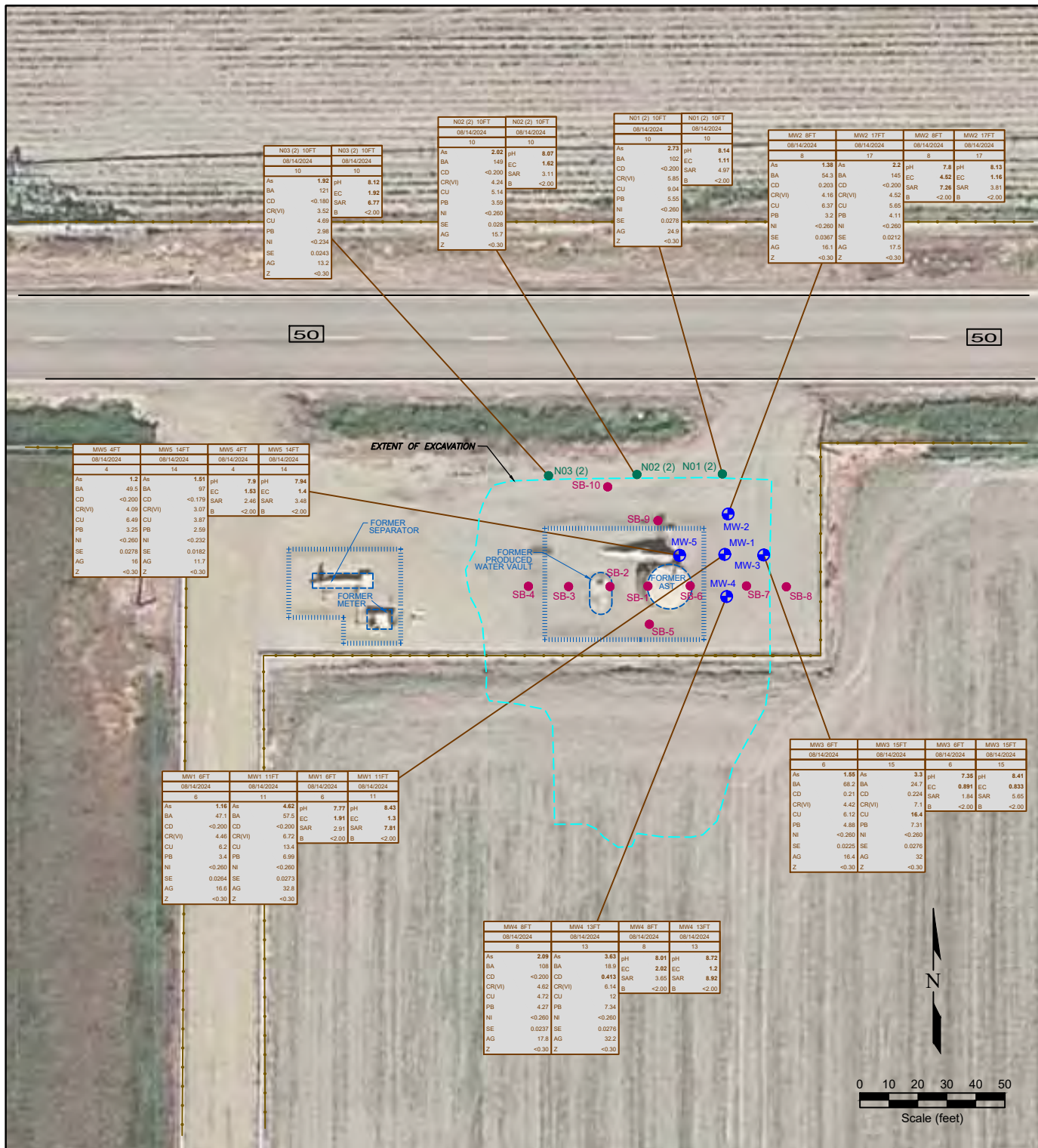


Figure 4
CROSS SECTIONS A-A' and B-B' MAP

Noble Energy, Inc. ~ Branch 1-3
NENE Sec. 3, T4N, R64W, 6th PM
Weld County, Colorado
40.348412°, -104.529767°

Project No. C022-066	API # 05-123-12513	Facility # 323068
Date 11/26/24	Remediation # 21830	Filename 22066X1







Boring/Well No. SB-3		Total Depth 8'		Location Noble Energy, Inc. Branch 1-3 NENE Sec. 3, T4N, R64W, 6th PM Weld County, Colorado							
Project No./Name C022-066 Noble Branch 1-3				Approved By 							
Drilling Contractor/Driller Drill Pro / Terrence, Hayward											
Geologist/Office Ethan Black / Fremont Environmental, Inc.											
Drilling Equipment/Method Geoprobe				Size/Type of Bit 2.5 direct push		Sampling Method direct push		Start/Finish Date 06/29/2022			
Well Installed?		Casing Mtrl./Dia.		Screen:							
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				Type		Mtrl. Length Dia. Slot Size					
Elevation of:		Ground Surface		Top of Well Casing		Top of Screen		Bottom of Screen		Ground Water Surface/Date Measured	
(ft. above datum)											

[illegible]

