

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

Sample ID	Sample Date	Depth (ft)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
MH 0.5 FEET	6/21/2023	0.5	40.5341918	-104.6780501	-	0.6
AST 1 FEET	6/21/2023	1	40.5339416	-104.6780820	-	1894
PWV E WALL 2 FEET	6/21/2023	2	40.5338970	-104.6780405	-	168.2
PWV N WALL 2 FEET	6/21/2023	2	40.5339199	-104.6780931	-	102.6
PWV S WALL 2 FEET	6/21/2023	2	40.5338823	-104.6780967	-	1.6
PWV W WALL 2 FEET	6/21/2023	2	40.5339038	-104.6781257	-	1.5
FLO2 3 FEET	6/21/2023	3	40.5342085	-104.6781016	-	0.1
SEP DL 3 FEET	6/21/2023	3	40.5341780	-104.6780886	-	0.2
PWV-Cen	4/16/2024	3	40.5339047	-104.6780943	-	2.7
PWV-E	4/16/2024	4	40.5338987	-104.6780574	-	0.0
PWV-N	4/16/2024	4	40.5339426	-104.6780973	0.9	0.0
PWV-S	4/16/2024	4	40.5338631	-104.6780956	-	0.0
PWV-W	4/16/2024	4	40.5339025	-104.6781319	-	0.0
Sep-E	4/16/2024	4	40.5341727	-104.6780635	-	0.0
Sep-N	4/16/2024	4	40.5342004	-104.6780880	1.0	0.0
Sep-S	4/16/2024	4	40.5341572	-104.6780931	-	0.2
Sep-W	4/16/2024	4	40.5341812	-104.6781179	1.0	0.0
PWV FLOOR 5 FEET	6/21/2023	5	40.5338858	-104.6781278	-	8.3
Sep-Cen	4/16/2024	7	40.5341766	-104.6780886	-	138
SEP Ewall01 8Ft	02/14/2025	8	40.534187	-104.678026	0.80	0.0
SEP Ewall02 8Ft	02/14/2025	8	40.534157	-104.678036	0.80	0.0
SEP Nwall01 8Ft	02/14/2025	8	40.534222	-104.678054	0.80	0.0
SEP Nwall02 8Ft	02/14/2025	8	40.534229	-104.678102	0.90	0.0

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Sample ID	Sample Date	Depth (ft)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
SEP Swall01 8Ft	02/14/2025	8	40.534142	-104.678086	0.80	0.0
SEP Swall02 8Ft	02/14/2025	8	40.534146	-104.678130	0.80	0.0
SEP Wwall01 8Ft	02/14/2025	8	40.53421	-104.67813	0.90	0.0
SEP Wwall02 8Ft	02/14/2025	8	40.53418	-104.67815	0.90	0.0
Sep Base 01 9Ft	02/11/2025	9	40.5341850	-104.67811	-	1.5
Base02 9Ft	02/13/2025	9	40.5341807	-104.67807	-	1.5
PWV/AST W01Wall - 4Ft	02/20/2025	4	40.5339405	-104.6781760	-	0.1
PWV/AST W02Wall - 4Ft	02/20/2025	4	40.5339087	-104.6781872	-	0.4
PWV/AST W03Wall - 4Ft	02/20/2025	4	40.5338767	-104.6781999	-	0.4
PWV/AST E02Wall - 4Ft	02/21/2025	4	40.5338778	-104.6780333	0.80	0.3
PWV/AST E03Wall - 4Ft	02/21/2025	4	40.5338488	-104.6780466	0.80	0.1
PWV/AST N01Wall - 4Ft	02/21/2025	4	40.5339665	-104.6781427	-	0.1
PWV/AST S01Wall - 4Ft	02/21/2025	4	40.5338285	-104.6780783	-	0.4
PWV/AST S02Wall - 4Ft	02/21/2025	4	40.5338391	-104.6781269	-	0.5
PWV/AST S03Wall - 4Ft	02/21/2025	4	40.5338469	-104.6781718	-	0.8
PWV/AST FLOOR01 - 5Ft	02/21/2025	5	40.5339239	-104.6781320	-	1.5
PWV/AST FLOOR02 - 5Ft	02/21/2025	5	40.5338662	-104.6781472	-	1.5
PWV/AST FLOOR04 - 5Ft	2/21/2025	5	40.5338585	-104.6780849	-	0.4
PWV/AST E01 Wall - 4Ft	02/24/2025	4	40.5339153	-104.6780206	0.80	0.2
PWV/AST N02 Wall - 4Ft	02/24/2025	4	40.5339576	-104.6780894	-	0.5
PWV/AST N03 Wall - 4Ft	02/24/2025	4	40.5339512	-104.6780344	-	0.3
PWV/AST Floor 03 - 5Ft	02/24/2025	5	40.5339091	-104.6780738	-	0.4

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REM # 28282

Sample ID	Sample Date	Depth (ft)	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
PWV/AST E04 Wall - 4Ft	02/25/2025	4	40.5339091	-104.6779975	-	1.9
PWV/AST N04 Wall - 4Ft	02/25/2025	4	40.5339587	-104.6780320	-	1.1

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

in. = Inches

ft. = Feet

bgs = Below ground surface

Material excavated and transported off site for disposal.

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE 100322
PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

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 1 FEET	06/21/2023	1	140	560	300	840	200	<50	60	63900	24000	36000	3900
PWV E WALL 2 FEET	06/21/2023	2	0.0034	0.017	0.018	0.058	0.019	<0.0050	0.011	<500	<0.50	120	<50
SEP DL 3 FEET	06/21/2023	3	0.0044	0.013	0.023	0.071	0.056	0.0061	0.011	<500	3.5	<50	<50
FLO2 3 FEET	6/21/2023	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV-CEN 3FT	04/16/2024	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV-E 4FT	04/16/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV-N 4FT	04/16/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV-S 4FT	04/16/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV-W 4FT	04/16/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP-E 4FT	04/16/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP-N 4FT	04/16/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP-S 4FT	04/16/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP-W 4FT	04/16/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV FLOOR 5 FEET	06/21/2023	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP-CEN 7FT	04/16/2024	7	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	13206.7	6.7	10000	3200
Sep Base 01 9Ft	02/11/2025	9	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
Base02 9Ft	02/13/2025	9	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP Ewall01 8Ft	02/14/2025	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP Ewall02 8Ft	02/14/2025	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP Nwall01 8Ft	02/14/2025	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP Nwall02 8Ft	02/14/2025	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP Swall01 8Ft	02/14/2025	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP Swall02 8Ft	02/14/2025	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP Wwall01 8Ft	02/14/2025	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
SEP Wwall02 8Ft	02/14/2025	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST W01Wall - 4Ft	02/20/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST W02Wall - 4Ft	02/20/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST W03Wall - 4Ft	02/20/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST E02Wall - 4Ft	02/21/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST E03Wall - 4Ft	02/21/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST N01Wall - 4Ft	02/21/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST S01Wall - 4Ft	02/21/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

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SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
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PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

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**		
PWV/AST S02Wall - 4Ft	02/21/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST S03Wall - 4Ft	02/21/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST FLOOR01 - 5Ft	02/21/2025	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST FLOOR02 - 5Ft	02/21/2025	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST FLOOR04 - 5Ft	02/21/2025	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST E01 Wall - 4Ft	02/24/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	1261.79	<0.50	670	590
PWV/AST N02 Wall - 4Ft	02/24/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	500	<0.50	190	310
PWV/AST N03 Wall - 4Ft	02/24/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST Floor 03 - 5Ft	02/24/2025	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST E04 Wall - 4Ft	02/25/2025	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV/AST N04 Wall - 4Ft	02/25/2025	4	<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

(<) = 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

NA - Not analyzed

Material excavated and transported off site for disposal.

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE 100322
PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

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
PWV/AST N03 Wall - 4Ft	02/24/2025	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
PWV/AST Floor 03 - 5Ft	02/24/2025	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
PWV/AST E04 Wall - 4Ft	02/25/2025	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
PWV/AST N04 Wall - 4Ft	02/25/2025	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

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)

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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

NA - Not analyzed

Material excavated and transported off site for disposal.

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

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
SEP Ewall01 8Ft	02/14/2025	8	7.8	2.78	0.473	<2.00
SEP Ewall02 8Ft	02/14/2025	8	7.83	0.31	0.596	<2.00
SEP Nwall01 8Ft	02/14/2025	8	7.56	1.41	1.78	<2.00
SEP Nwall02 8Ft	02/14/2025	8	7.34	2.49	0.142	<2.00
SEP SWall01 8Ft	02/14/2025	8	7.48	2.46	0.293	<2.00
SEP SWall02 8Ft	02/14/2025	8	7.75	2.01	0.226	<2.00
SEP Wwall01 8Ft	02/14/2025	8	7.81	2.09	0.164	<2.00
SEP Wwall02 8Ft	02/14/2025	8	8.16	0.569	0.104	<2.00
Sep Base 01 9Ft	02/11/2025	9	8.01	0.647	0.34	<2.00
Base02 9Ft	02/13/2025	9	7.93	1.48	1.65	<2.00
AST 1 FEET	06/21/2023	1	7.26	3.67	23	16.7
PWV E WALL 2 FEET	06/21/2023	2	7.53	2.82	0.349	0.159
SEP DL 3 FEET	06/21/2023	3	7.82	0.787	0.141	0.37
FL02 3 FEET	6/21/2023	3	7.83	0.268	0.0812	0.186
PWV-CEN 3FT	04/16/2024	3	8.77	0.343	1.41	<2.00
PWV-E 4FT	04/16/2024	4	8.77	0.535	2.27	<2.00
PWV-N 4FT	04/16/2024	4	9.52	0.278	0.582	<2.00
PWV-S 4FT	04/16/2024	4	8.52	0.483	0.38	<2.00
PWV-W 4FT	04/16/2024	4	8.95	0.547	2.8	<2.00
SEP-E 4FT	04/16/2024	4	8.39	0.448	0.0484	<2.00
SEP-N 4FT	04/16/2024	4	8.33	0.571	0.305	<2.00
SEP-S 4FT	04/16/2024	4	8.31	0.803	0.18	<2.00
SEP-W 4FT	04/16/2024	4	8.56	0.617	0.44	<2.00
PWV/AST W01Wall - 4Ft	02/20/2025	4	8.08	0.689	0.638	<2.00
PWV/AST W02Wall - 4Ft	02/20/2025	4	8.04	0.739	0.442	<2.00

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
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PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

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
PWV/AST W03Wall - 4Ft	02/20/2025	4	7.87	2.04	1.39	<2.00
PWV/AST E02Wall - 4Ft	02/21/2025	4	8.48	0.196	0.156	<2.00
PWV/AST E03Wall - 4Ft	02/21/2025	4	8.63	0.148	0.149	<2.00
PWV/AST N01Wall - 4Ft	02/21/2025	4	9.18	0.208	1.14	<2.00
PWV/AST S01Wall - 4Ft	02/21/2025	4	7.63	2.52	0.096	<2.00
PWV/AST S02Wall - 4Ft	02/21/2025	4	7.17	0.645	0.196	<2.00
PWV/AST S03Wall - 4Ft	02/21/2025	4	7.78	0.693	0.215	<2.00
PWV/AST E01 Wall - 4Ft	02/24/2025	4	7.64	2.65	0.493	<2.00
PWV/AST N02 Wall - 4Ft	02/24/2025	4	8.64	0.216	0.879	<2.00
PWV/AST N03 Wall - 4Ft	02/24/2025	4	8.28	0.209	0.581	<2.00
PWV/AST E04 Wall - 4Ft	02/25/2025	4	7.74	3.01	0.896	<2.00
PWV/AST N04 Wall - 4Ft	02/25/2025	4	8.49	0.613	3.34	<2.00
PWV FLOOR 5 FEET	06/21/2023	5	7.74	1.74	8.27	0.195
PWV/AST FLOOR01 - 5Ft	02/21/2025	5	7.9	0.851	0.982	<2.00
PWV/AST FLOOR02 - 5Ft	02/21/2025	5	7.76	2.01	0.274	<2.00

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

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
PWV/AST FLOOR04 - 5Ft	02/21/2025	5	7.6	2.68	0.187	<2.00
PWV/AST Floor 03 - 5Ft	02/24/2025	5	7.78	2.21	0.635	<2.00
SEP-CEN 7FT	04/16/2024	7	8.01	2.06	0.499	<2.00
BKG 1 3FT	04/16/2024	3	8.32	0.553	0.353	<2.00
BKG 2 3FT	04/16/2024	3	8.22	0.933	0.194	<2.00
BKG 3 3FT	04/16/2024	3	8.18	0.902	0.325	<2.00
BKG 4 3FT	04/16/2024	3	8.18	1.15	0.344	<2.00
BKG 5 3FT	04/16/2024	3	8.48	0.464	0.6	<2.00
Maximum Background Concentration			8.48	1.15	0.6	<2.00

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.

NA - Not analyzed/Not applicable

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

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
SEP-CEN 7FT	04/16/2024	7	3.21	25.3	0.454	<0.30	22.2	10.9	15.2	0.378	0.0672	65.8
SEP Ewall01 8Ft	02/14/2025	8	2.92	36	0.351	<0.30	11.2	9.33	11.6	<0.260	0.0436	47
SEP Ewall02 8Ft	02/14/2025	8	2.26	52.3	0.439	<0.30	13.7	11.3	9.29	<0.260	0.0619	44.1
SEP Nwall01 8Ft	02/14/2025	8	2.7	26.7	0.278	<0.30	12.5	12.7	11.6	<0.260	0.0447	53.5
SEP Nwall02 8Ft	02/14/2025	8	3.08	36.1	0.469	<0.30	18.4	14.1	12.2	0.795	0.0671	68
SEP Swall01 8Ft	02/14/2025	8	2.98	45.2	0.663	<0.30	14.2	12.9	15.7	0.273	0.0339	54.4
SEP Swall02 8Ft	02/14/2025	8	4.28	26.5	0.227	<0.30	6.53	7.24	8.56	<0.260	0.0342	43.7
SEP Wwall01 8Ft	02/14/2025	8	2.14	45.2	0.392	<0.30	10.6	9.47	10.8	<0.260	0.0391	46.6
SEP Wwall02 8Ft	02/14/2025	8	2.79	29.9	0.247	<0.30	7.12	7.85	10.9	<0.260	0.0204	48.9
Sep Base 01 9Ft	02/11/2025	9	2.87	55	0.424	<0.30	9.3	12	5.55	<0.260	0.037	31.3
Base02 9Ft	02/13/2025	9	1.29	38.6	0.511	<0.30	7.64	11.9	8.19	<0.260	0.0309	26
PWV-CEN 3FT	04/16/2024	3	4.02	87	0.234	<0.30	7.97	7.62	8.22	<0.236	0.0306	33.6
PWV-E 4FT	04/16/2024	4	3.99	208	0.271	<0.30	7.77	8.12	9.41	<0.260	0.0319	37.8
PWV-N 4FT	04/16/2024	4	5.27	75.7	0.247	<0.30	9	8.24	12.1	0.302	0.0388	37
PWV-S 4FT	04/16/2024	4	3.65	299	0.238	<0.30	5.18	7.08	7.79	<0.260	0.0215	32.3
PWV-W 4FT	04/16/2024	4	3.9	100	0.292	<0.30	7.33	7.3	9.83	<0.260	0.0349	36.3
SEP-E 4FT	04/16/2024	4	4.66	99.9	0.289	<0.30	9.07	8.2	9.47	<0.260	0.0347	37
SEP-N 4FT	04/16/2024	4	3.9	30.5	0.39	<0.30	28.8	19	10.5	0.312	0.0822	72.4
SEP-S 4FT	04/16/2024	4	4.31	87.8	0.27	<0.30	8.17	7.66	8.63	<0.234	0.0347	33.8
SEP-W 4FT	04/16/2024	4	4.75	110	0.281	<0.30	8.65	7.67	10.8	<0.260	0.0307	33.5
PWV/AST W01Wall - 4Ft	02/20/2025	4	8.58	42	0.352	<0.30	4.71	6.44	9.02	<0.260	0.027	44.8
PWV/AST W02Wall - 4Ft	02/20/2025	4	2.44	53.3	0.248	<0.30	5.48	7.19	7.13	<0.260	0.028	35.1
PWV/AST W03Wall - 4Ft	02/20/2025	4	4.82	131	0.423	<0.30	7.78	9.57	9.91	<0.260	0.0341	43.5
PWV/AST E02Wall - 4Ft	02/21/2025	4	3.49	390	0.309	<0.30	3.7	8.31	5.49	<0.260	0.0321	24.8
PWV/AST E03Wall - 4Ft	02/21/2025	4	2.3	37.6	0.385	<0.30	2.29	7.55	5.23	<0.260	0.0254	22.5
PWV/AST N01Wall - 4Ft	02/21/2025	4	1.59	18.6	<0.200	<0.30	2.21	5.73	3.1	<0.260	<0.0200	17.3
PWV/AST S01Wall - 4Ft	02/21/2025	4	4.14	40.2	0.606	<0.30	5.59	14.8	5.41	<0.260	0.0909	30.7
PWV/AST S02Wall - 4Ft	02/21/2025	4	2.75	32.9	0.215	<0.30	3.71	7.23	5.37	<0.260	0.0286	25.2
PWV/AST S03Wall - 4Ft	02/21/2025	4	2.35	48	0.238	<0.30	2.73	6.23	4.07	<0.260	0.0287	18.6
PWV/AST E01 Wall - 4Ft	02/24/2025	4	2.5	68.7	0.231	<0.30	4.17	7.4	4.67	<0.260	0.0387	25.1
PWV/AST N02 Wall - 4Ft	02/24/2025	4	4.15	119	0.343	<0.30	3.98	8.03	4.77	<0.260	0.034	19.9
PWV/AST N03 Wall - 4Ft	02/24/2025	4	3.23	72.8	0.348	<0.30	3.8	8.38	4.79	<0.260	0.0341	23.1
PWV/AST E04 Wall - 4Ft	02/25/2025	4	3.44	61.8	0.399	<0.30	6.02	10.3	5.98	<0.260	0.0515	27.7
PWV/AST N04 Wall - 4Ft	02/25/2025	4	3.37	61.5	0.326	<0.30	3.78	7.39	5.02	<0.260	0.0293	20.7
PWV/AST FLOOR01 - 5Ft	02/21/2025	5	2.95	35.4	0.253	<0.30	6.38	7.79	4.8	<0.260	0.0288	32.9

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
PAPPENHEIM 2-32 TANK, WELD COUNTY, COLORADO
REM # 28282

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
PWV/AST FLOOR02 - 5Ft	02/21/2025	5	3.24	14.7	<0.200	<0.30	6.07	7.66	4.07	<0.260	0.0327	27.1
PWV/AST FLOOR04 - 5Ft	02/21/2025	5	2.69	23.6	0.269	<0.30	7.57	13.2	4.47	<0.260	0.0508	27.1
PWV/AST Floor 03 - 5Ft	02/24/2025	5	2.32	26.1	0.261	<0.30	7.78	14.9	3.49	<0.260	0.0539	25.5
BKG 1 3FT	04/16/2024	3	6.85	120	0.343	<0.30	4.94	8.65	6.34	0.239	0.0326	18.8
BKG 2 3FT	04/16/2024	3	3.76	128	0.211	<0.30	3.55	9.84	4.76	<0.236	0.0246	18.3
BKG 3 3FT	04/16/2024	3	4.74	122	0.297	<0.30	5.11	9.06	5.91	<0.260	0.0407	22.6
BKG 4 3FT	04/16/2024	3	3.34	140	0.244	<0.30	3.87	8.04	5.25	<0.260	0.0273	23.8
BKG 5 3FT	04/16/2024	3	6.12	100	0.392	<0.30	6.98	10	6.25	<0.260	0.0565	26.5
1.25x Maximum Background Concentration			8.56	175	0.49	0	8.725	12.5	7.925	0.29875	0.070625	33.125

- 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

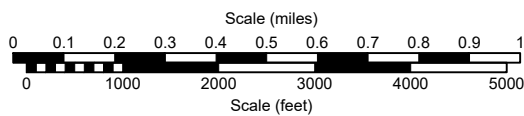
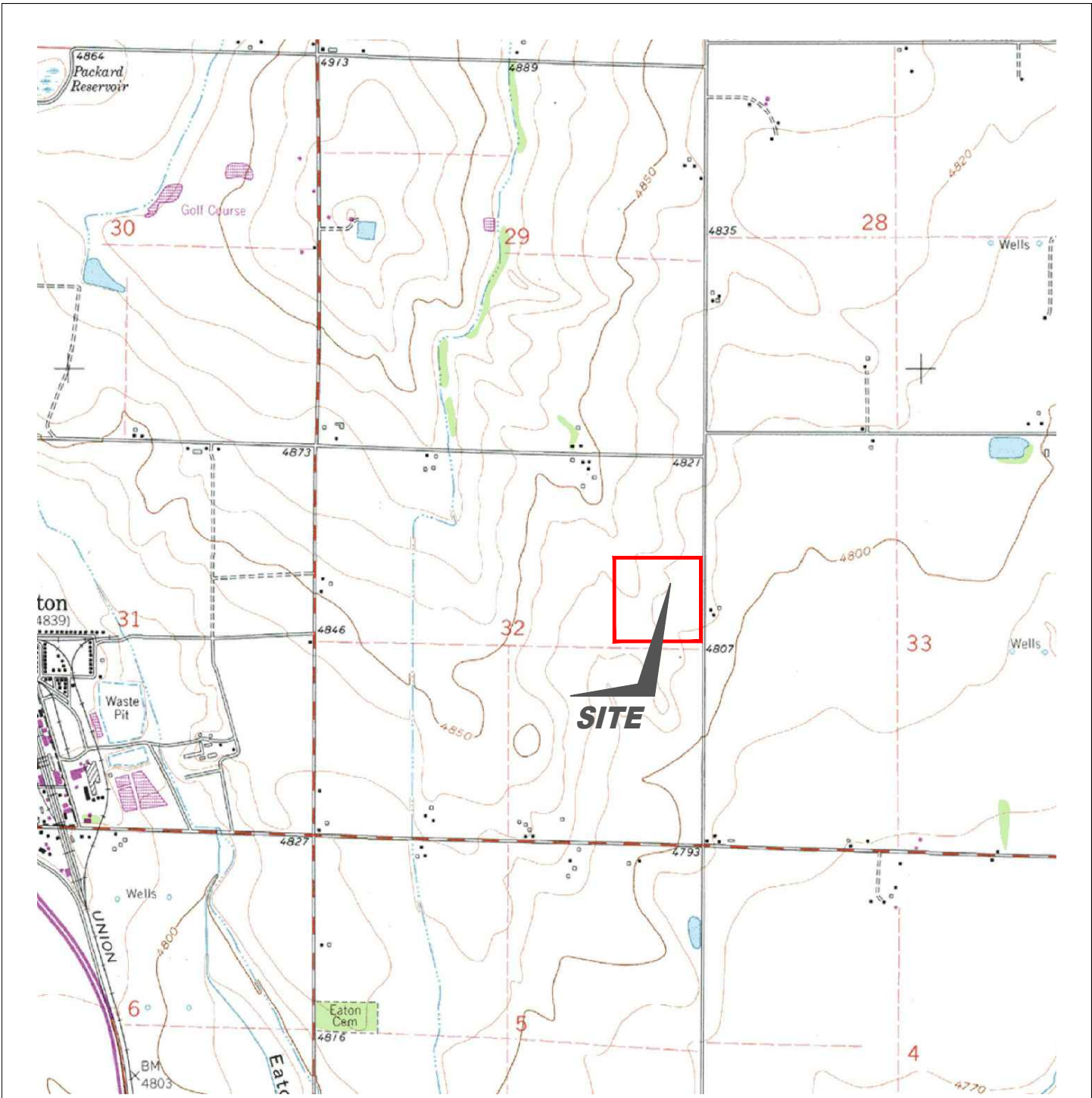
ft. = Feet

bgs = Below ground surface

* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed/Not applicable

FIGURES



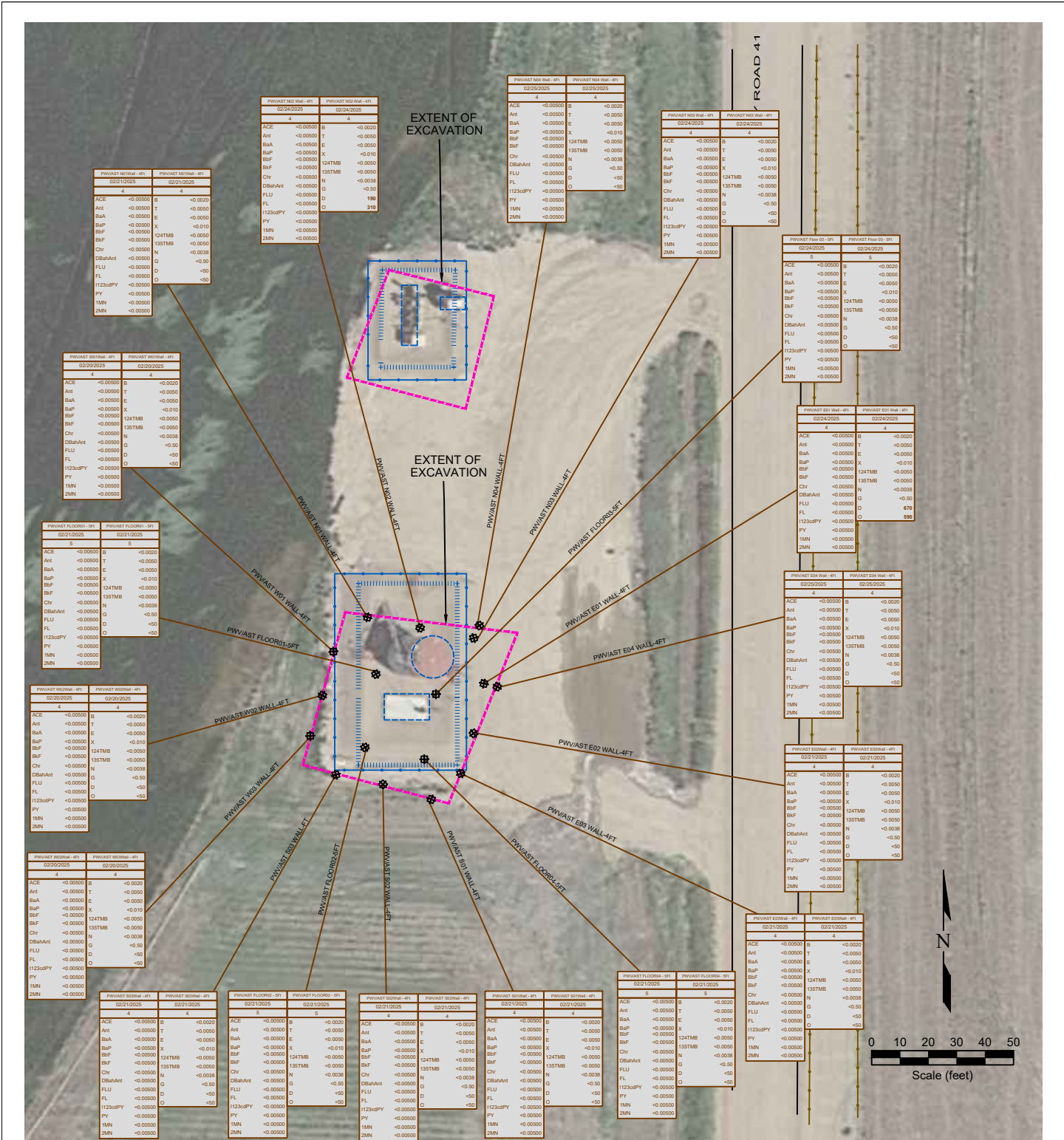
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

Noble Energy, Inc. ~ Pappenheim 2-32 Tank
 SENE Sec. 32, T7N, R65W, 6th PM
 Weld County, Colorado
 40.534216°, -104.678116°

Project # CO23-174	API #	Facility # 484103
Date 5/8/2025	Remediation # 28282	Filename 23174T





LEGEND

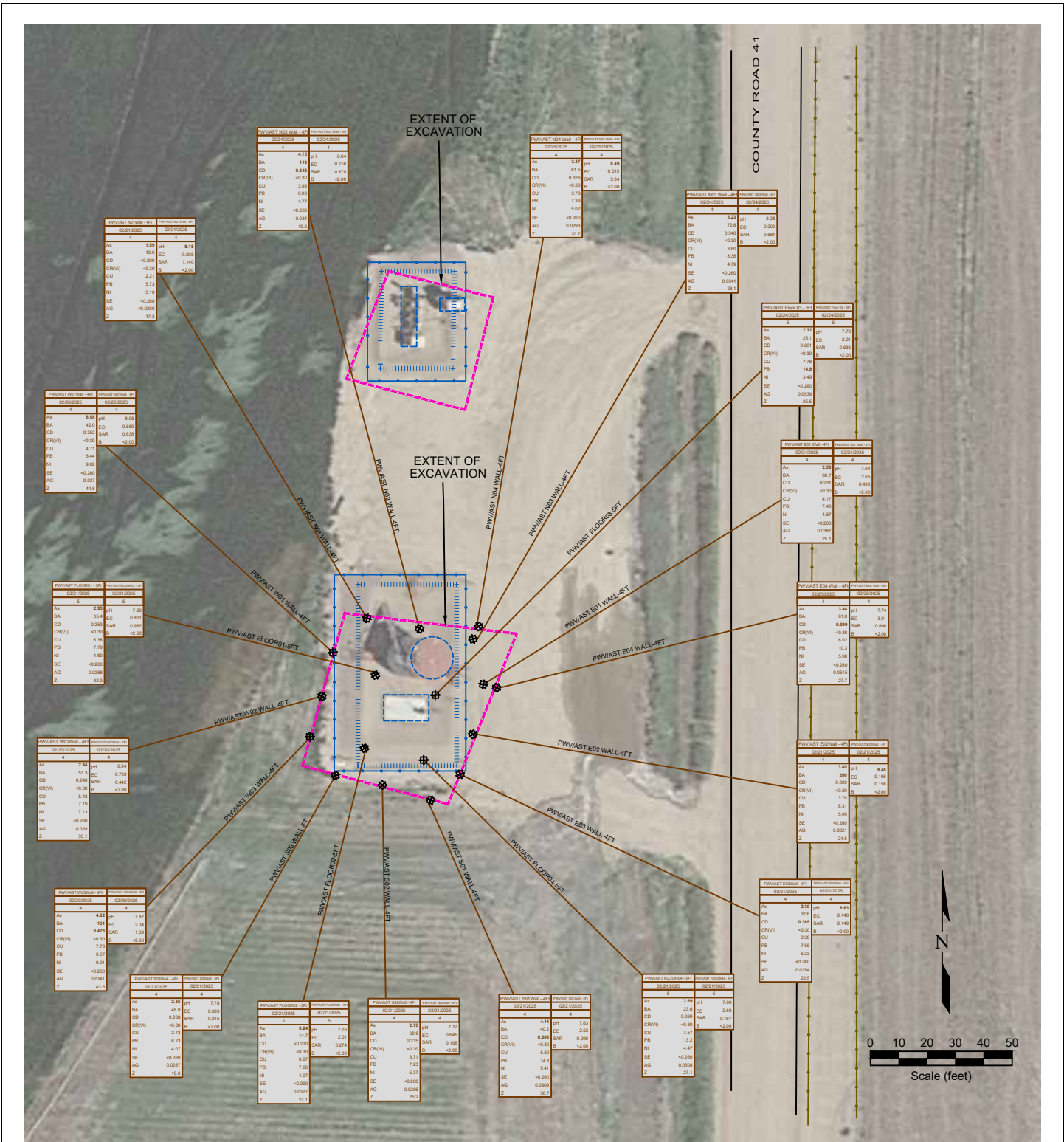
- SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- EXTENT OF EXCAVATION
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL

SAMPLE ID	DATE	DEPTH (ft)	SAMPLE ID	DATE	DEPTH (ft)
ACE	<0.0050		ACENAPHTHENE (mg/kg)	<0.0020	
Ant	<0.0050		ANTHRACENE (mg/kg)	<0.0020	
BAA	<0.0050		BENZO (A) ANTHRACENE (mg/kg)	<0.0050	
BAP	<0.0050		BENZO (A) PYRENE (mg/kg)	<0.010	
BPF	<0.0050		BENZO (B) FLUORANTHENE (mg/kg)	<0.0050	
BNF	<0.0050		BENZO (K) FLUORANTHENE (mg/kg)	<0.0050	
Chr	<0.0050		CHRYSENE (mg/kg)	<0.0030	
DBahAnt	<0.0050		DIBENZ (A,H) ANTHRACENE (mg/kg)	<0.50	
FLU	<0.0050		FLUORANTHENE (mg/kg)	<0.50	
FL	<0.0050		FLUORENE (mg/kg)	<50	
1123aPY	<0.0050		INDENO (1,2,3-C) PYRENE (mg/kg)	<50	
PY	<0.0050		PYRENE (mg/kg)	<50	
1MN	<0.0050		1-METHYLNAPHTHALENE (mg/kg)	<50	
2MN	<0.0050		2-METHYLNAPHTHALENE (mg/kg)	<50	
B	<0.0020		BENZENE (mg/kg)	<0.0020	
T	<0.0050		TOLUENE (mg/kg)	<0.0050	
E	<0.0050		ETHYLBENZENE (mg/kg)	<0.0050	
X	<0.010		TOTAL XYLENES (mg/kg)	<0.010	
124TMB	<0.0050		1,2,4-TRIMETHYLBENZENE (mg/kg)	<0.0050	
135TMB	<0.0050		1,3,5-TRIMETHYLBENZENE (mg/kg)	<0.0050	
N	<0.0030		NAFTHALENE (mg/kg)	<0.0030	
G	<0.50		TPH (mg/kg)	<0.50	
D	<50		TPH (mg/kg)	<50	
<50			TPH (mg/kg)	<50	

Figure 3
SOUTH EXCAVATION ORGANIC SOIL CHEMISTRY MAP

Noble Energy, Inc. ~ Pappenheim 2-32 Tank
 SENE Sec. 32, T7N, R65W, 6th PM
 Weld County, Colorado
 40.534216°, -104.678116°

Project No. CO23-174	API #	Facility # 484103
Date 5/8/25	Remediation # 28282	Filename 23174Q1



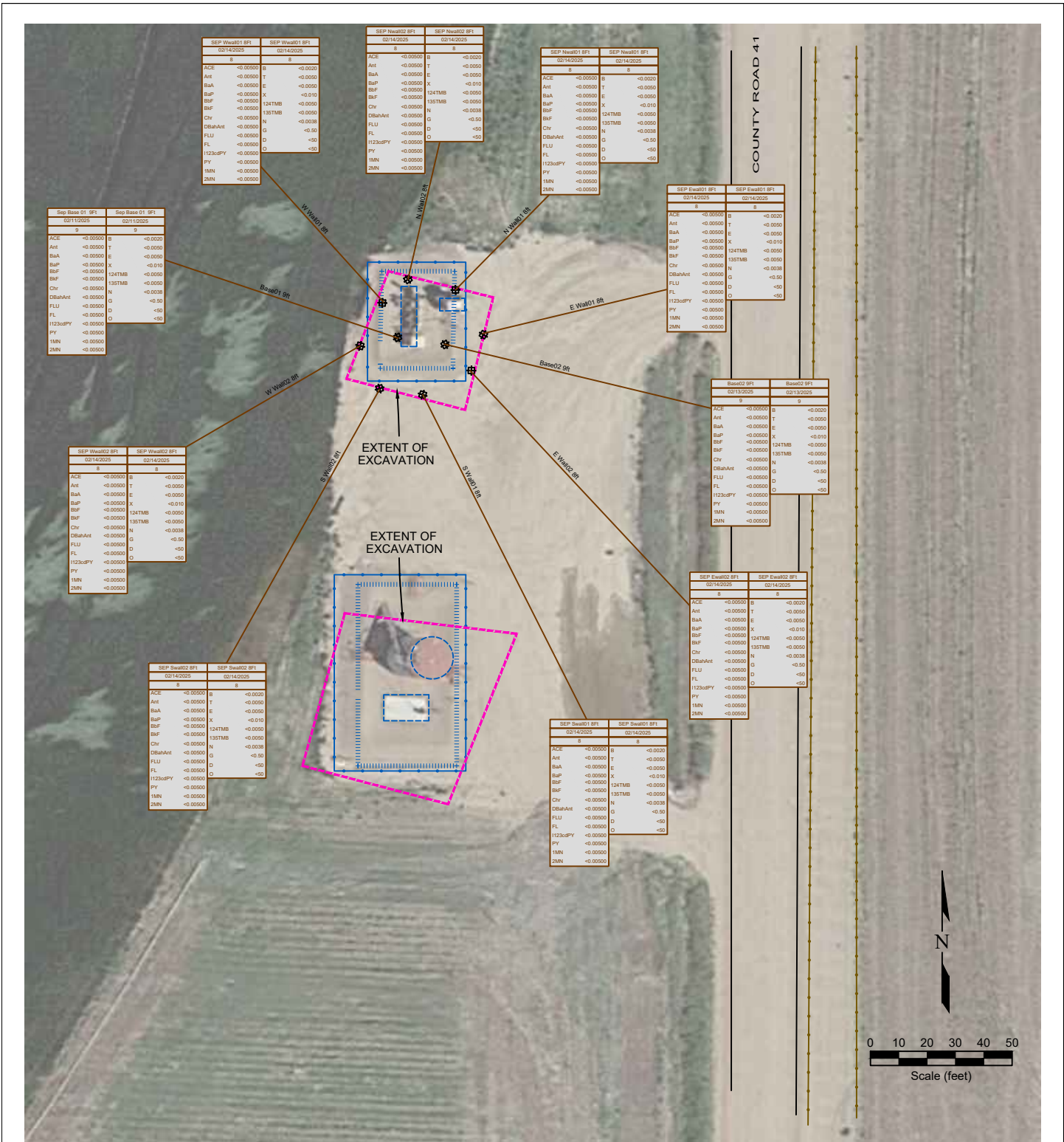
LEGEND

- SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- EXTENT OF EXCAVATION
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL

SAMPLE ID	DATE SAMPLED	DEPTH (ft)	DEPTH (ft)
AA	8/12	4	4
BA	10/1	4	4
CD	8/30	4	4
CR(VI)	8/30	4	4
CU	8/30	4	4
NI	8/30	4	4
SE	8/30	4	4
AG	8/30	4	4
Z	8/30	4	4

Figure 4
SOUTH EXCAVATION METALS AND INORGANIC SOIL CHEMISTRY MAP
 Noble Energy, Inc. ~ Pappenheim 2-32 Tank
 SENE Sec. 32, T7N, R65W, 6th PM
 Weld County, Colorado
 40.534216°, -104.678116°

Project No. CO23-174	API #	Facility # 484103
Date 5/8/25	Remediation # 28282	Filename 23174Q1



LEGEND

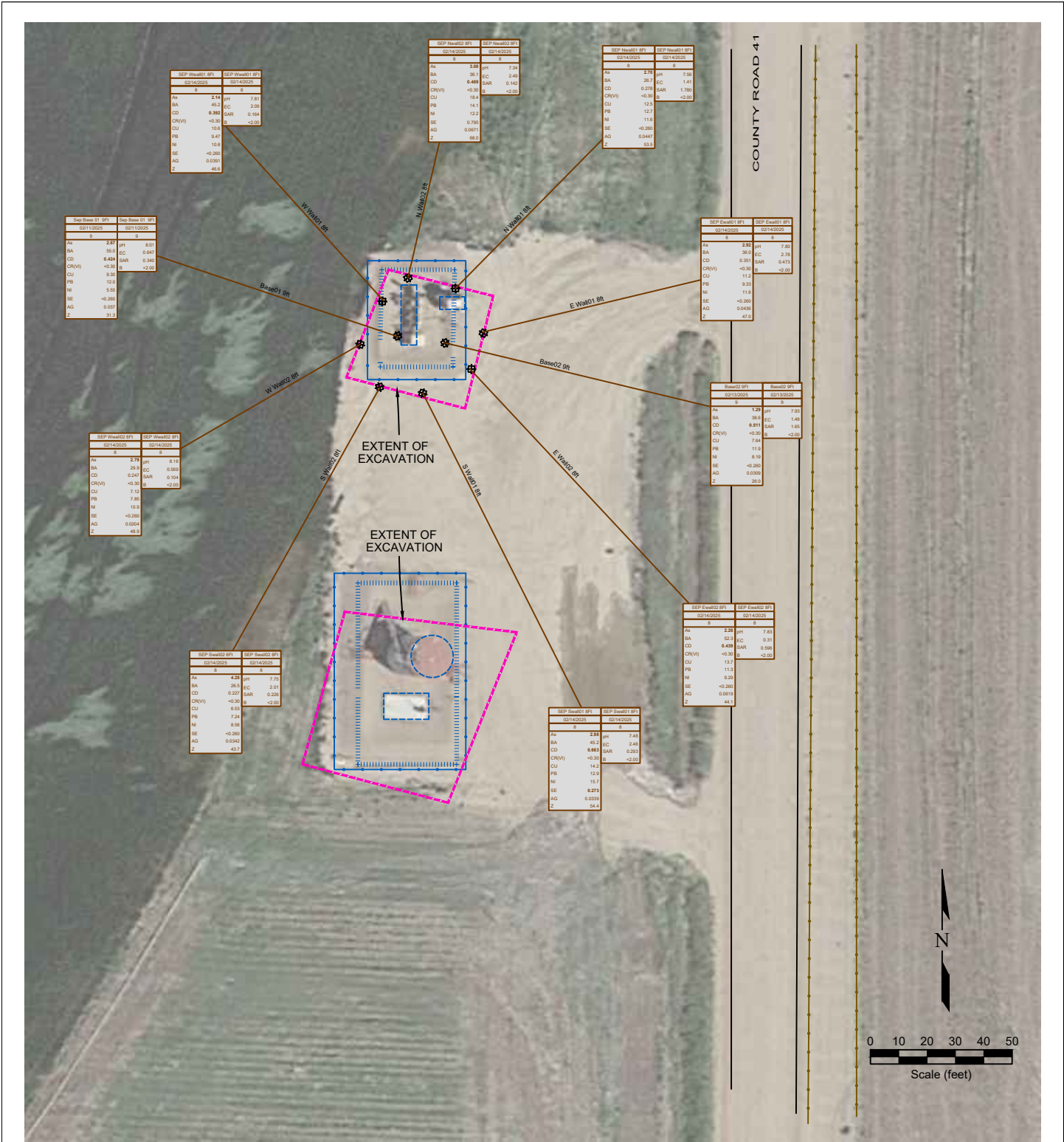
- SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- EXTENT OF EXCAVATION
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL

SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
DATE	DATE	DATE	DATE
DEPTH	DEPTH (ft)	DEPTH	DEPTH (ft)
ACE	<0.0050	ACE	<0.0050
Ant	<0.0050	Ant	<0.0050
BaA	<0.0050	BaA	<0.0050
BaP	<0.0050	BaP	<0.0050
BbF	<0.0050	BbF	<0.0050
Chr	<0.0050	Chr	<0.0050
DBaAAnt	<0.0050	DBaAAnt	<0.0050
FLU	<0.0050	FLU	<0.0050
FL	<0.0050	FL	<0.0050
1123aPPY	<0.0050	1123aPPY	<0.0050
PY	<0.0050	PY	<0.0050
1MN	<0.0050	1MN	<0.0050
2MN	<0.0050	2MN	<0.0050

Figure 5
NORTH EXCAVATION ORGANIC SOIL CHEMISTRY MAP

Noble Energy, Inc. ~ Pappenheim 2-32 Tank
 SENE Sec. 32, T7N, R65W, 6th PM
 Weld County, Colorado
 40.534216°, -104.678116°

Project No. CO23-174	API #	Facility # 484103
Date 5/8/25	Remediation # 28282	Filename 23174Q2



LEGEND

- ⊗ SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- ▭ FORMER FACILITY
- EXTENT OF EXCAVATION
- FENCE LINE
- ||||| CONTAINMENT BERM
- CONTAINMENT WALL

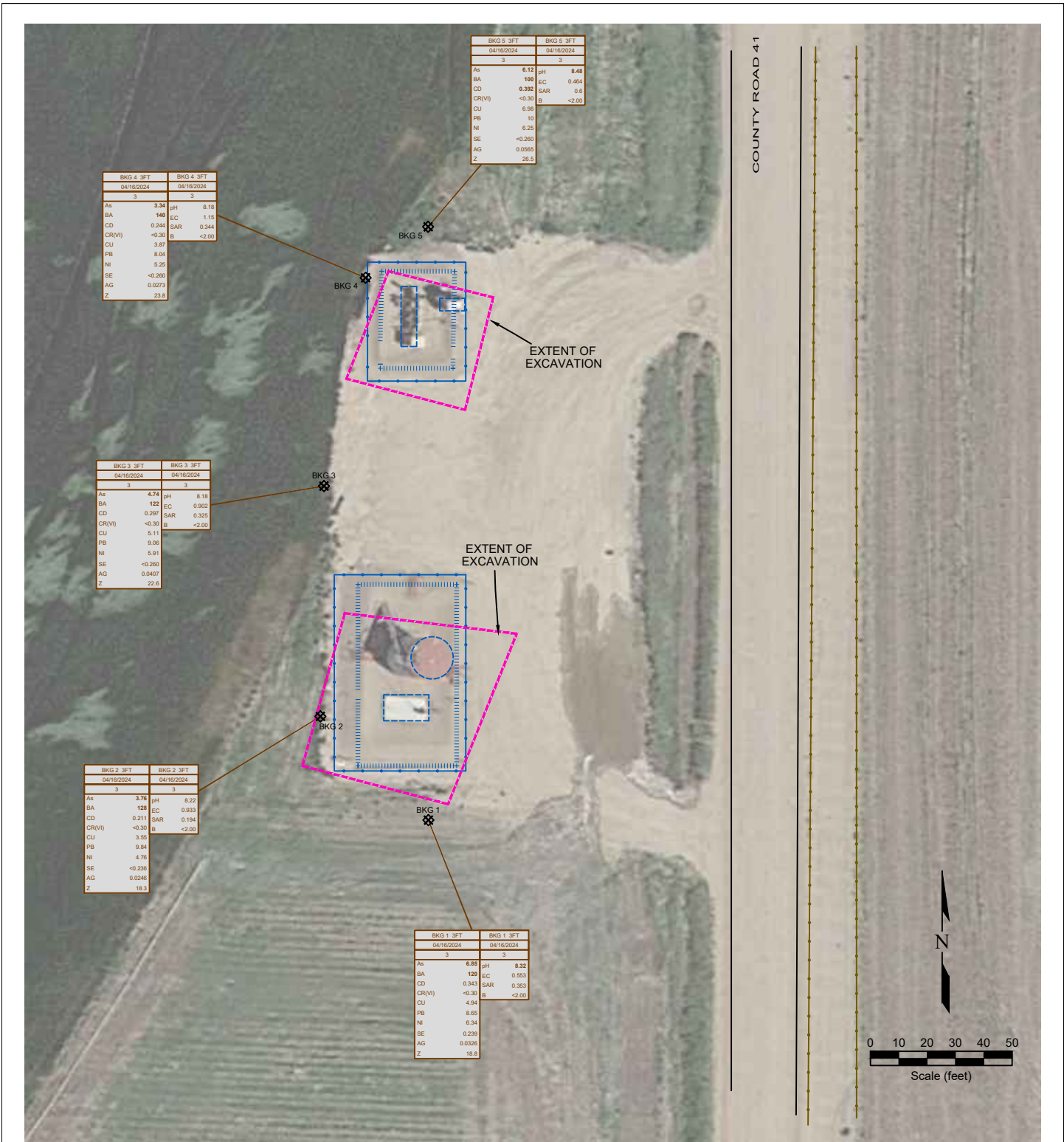
SAMP#	SAMPLE ID	SAMPLE DATE	SAMPLE ID	SAMPLE DATE
As	ARSENIC (mg/kg)	5/8/25	As	ARSENIC (mg/kg)
BA	BARIIUM (mg/kg)	5/8/25	BA	BARIIUM (mg/kg)
CD	CADMIUM (mg/kg)	5/8/25	CD	CADMIUM (mg/kg)
CR(V)	CHROMIUM (mg/kg)	5/8/25	CR(V)	CHROMIUM (mg/kg)
CU	COPPER (mg/kg)	5/8/25	CU	COPPER (mg/kg)
NI	LEAD (mg/kg)	5/8/25	NI	NICKEL (mg/kg)
SE	SELENIUM (mg/kg)	5/8/25	SE	SELENIUM (mg/kg)
AG	SILVER (mg/kg)	5/8/25	AG	SILVER (mg/kg)
Z	ZINC (mg/kg)	5/8/25	Z	ZINC (mg/kg)

Figure 6
NORTH EXCAVATION METALS AND INORGANIC SOIL CHEMISTRY MAP

Noble Energy, Inc. ~ Pappenheim 2-32 Tank
 SENE Sec. 32, T7N, R65W, 6th PM
 Weld County, Colorado
 40.534216°, -104.678116°

Project No. CO23-174	API #	Facility # 484103
Date 5/8/25	Remediation # 28282	Filename 23174Q2





LEGEND

- SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- EXTENT OF EXCAVATION
- FENCE LINE
- CONTAINMENT BERM
- CONTAINMENT WALL

SAMPLE	SAMPLE ID	SAMPLE	SAMPLE ID
DATE	DATE SAMPLED	DATE	DATE SAMPLED
DEPTH	DEPTH (ft)	DEPTH	DEPTH (ft)
As	ARSENIC (mg/kg)	pH	pH (pH units)
BA	BARIUM (mg/kg)	EC	EC (microsiemens)
CD	CADMIUM (mg/kg)	SAR	SAR (unitless)
CR(V)	CHROMIUM (mg/kg)	B	BORDON (mg/L)
CU	COPPER (mg/kg)		
PB	LEAD (mg/kg)		
Ni	NICKEL (mg/kg)		
SE	SELENIUM (mg/kg)		
AG	SILVER (mg/kg)		
Z	ZINC (mg/kg)		

Figure 6

BACKGROUND SAMPLE SOIL CHEMISTRY MAP

Noble Energy, Inc. ~ Pappenheim 2-32 Tank
 SENE Sec. 32, T7N, R65W, 6th PM
 Weld County, Colorado
 40.534216°, -104.678116°

Project No. CO23-174	API #	Facility # 484103
Date 5/8/25	Remediation # 28282	Filename 23174Q2

APPENDIX A

PHOTO LOG

Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

#1- PWV North wall. Facing north, No visual staining or odor



Description:

#2- PWV East wall. Facing east, No visual staining or odor

Photo Log



Description:

#3- PWV South wall. Facing south, No visual staining or odor



Description:

#4- PWV West wall. Facing west, No visual staining or odor



Description:

#5- PWV Floor. Facing southeast, No visual staining or odor



Description:

#6- PWV North wall,. Facing north, No visual staining or odor



Description:

#7- PWV East wall. Facing east, No visual staining or odor