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June 10, 2026

Mr. Tim Noger
Project Manager
Voluntary Remediation & Brownfields Program
Ground Water Quality Bureau
New Mexico Environment Department
1190 Saint Francis Drive
Santa Fe, NM 87502-5469

**RE: Installation of Compliance Monitoring Wells and Groundwater Sampling
Remediation of Impacted Soil for the Former Aerex Refinery East Parcel,
Bloomfield, New Mexico
Work Order Number: EAEN08-ROS-04
NMED Department Code: ZJ5203 (FY 26 NCS)
NMED Subaccount Code: ZGWQB
Contract #24-667-2030-27723**

Dear Mr. Noger:

This letter report documents completion of the installation of seven groundwater monitoring wells and groundwater sampling at the East Parcel of the Former Aerex Refinery, located at the southeast corner of West Blanco Boulevard and North 5th Street in Bloomfield, New Mexico. The wells were installed to perform compliance groundwater monitoring after completion of the soil removal action at the site. EA Engineering, Science, and Technology, Inc., PBC (EA) subcontracted Certerra Subsurface Imaging/Enviro Drill (EDI) of Albuquerque, New Mexico to perform the drilling and well installation services. EA personnel performed groundwater sampling.

Monitoring Well Installation and Soil and Groundwater Sampling

Drilling and Soil Sampling

On May 12 and 13, 2026, EA and EDI, a New Mexico licensed drilling company, advanced seven soil borings to a total depth of 22 feet below ground surface (bgs) at the site using the hollow stem auger drilling method and completed each boring as a groundwater monitoring well. Prior to drilling, EA obtained well permits from the New Mexico Office of the State Engineer (Attachment 1) and contacted NM 811 to locate underground utilities in the area.

Soil samples were collected during drilling for field screening with a photoionization detector (PID) using the heated headspace method and for lithologic description using the Unified Soil

Classification System (USCS). Samples collected for possible laboratory analysis were retained and temporarily stored on ice pending final selection for laboratory analysis based on the field screening results. Boring logs are included in Attachment 2. PID readings were recorded every two feet and are shown on the boring logs.

Two soil samples were collected from each boring for laboratory analysis – one sample from near the water table, and the other sample from within the saturated zone. Soil samples were placed in sample containers provided by the analytical laboratory, labeled, and stored in a cooler packed with ice pending transfer under chain-of-custody to the Eurofins in Albuquerque, New Mexico for analysis.

Soil samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260B and for Total Petroleum Hydrocarbons Gasoline Range Organics (TPH-GRO), Diesel Range Organics (TPH-DRO), and Motor Oil Range Organics (TPH-MRO) by EPA Method 8015D. Sample containers, preservatives, analytical methods, and holding times are specified in Table 1. Samples collected for VOC analysis were field preserved using the methanol extraction procedure. The samples were extruded from clean 10-cc plungers into clean vials with pre-measured methanol. VOC soil sample analytical results are summarized in Table 2, and TPH soil sample analytical results are summarized in Table 3. The analytical laboratory report is included in Attachment 3.

Soil cuttings generated during drilling were placed in 55-gallon steel drums and stored onsite pending receipt of analytical results. Upon receipt and review of the analytical results, EA coordinated disposal of the soil cuttings with the City of Bloomfield. The drums were emptied onto the ground surface, mixed thoroughly, and then thin spread onsite.

Well Installation

The seven soil borings were completed as groundwater monitoring wells, designated MW-EP-04 through MW-EP-10. The locations of the wells are shown on the Topographic Survey included as Attachment 4. The wells were completed with 15 feet of screen, installed with approximately 10 feet below and 5 feet above the water table, to allow for the observation of light non-aqueous phase liquid (LNAPL) and water level fluctuations over time. The wells were constructed of Schedule 40 (SCH 40), flush-thread jointed, 2-inch-diameter polyvinyl chloride (PVC) casing with machine-slotted 0.010-inch screens. A 10/20 filter pack was installed from the bottom of the well to approximately one foot above the top of the screen, followed by a 2-foot-thick hydrated bentonite plug, and cement-bentonite grout to one foot below grade. The surface completions consist of an 8-inch vault set in 2-foot by 2-foot by 4-inch-thick reinforced concrete well pads. Tee-posts were driven into the ground on two corners of each well pad to mark the locations. Well construction details are recorded on the boring logs included in Attachment 2.

Well Development

Wells were developed on May 14, 2026, using a submersible pump. During development, the pump was moved up and down the screened interval to surge the well. Water was pumped into a five-gallon bucket to measure water volume. As the wells were developed, field parameters were measured (specific conductivity (SpC), temperature, and pH) and water was assessed for fines

content. Development water was ground discharged on a paved surface to evaporate. An average of 14 well volumes of water were removed from each well during development with recharge occurring quickly. Copies of the well development field forms are included in Attachment 5.

Fluid Level Gauging and Groundwater Sampling

On May 21, 2026, fluid levels were gauged in the seven newly installed wells using an electronic interface probe. Table 4 provides a summary of the groundwater gauging data and potentiometric surface elevations in each of the wells. A potentiometric surface map was constructed based on the gauging data and is included as Figure 1. The overall direction of groundwater flow is to the southwest at a gradient of approximately 0.04, consistent with previous investigations performed on the East and West Parcels.

After gauging, the wells were purged of three casing volumes prior to sampling. Field parameters including temperature, pH, SpC, and oxidation-reduction potential (ORP) were measured during purging with a Hanna HI 98194 multi-parameter water quality meter. Field parameter data were recorded on well sampling field forms included in Attachment 5. The water quality meter was calibrated and/or checked against standard solutions in accordance with the manufacturers' specifications prior to use. Purge water was discharged onto an impervious surface to evaporate.

Sampling was accomplished by hand bailing with new polyethylene bailers at each well. Groundwater was carefully transferred from the bailer into containers provided by the analytical laboratory. Sample containers, preservatives, analytical methods, and holding times are specified in Table 1. Samples for VOC analysis were collected so that no headspace was present in the sample vial. All samples were preserved in accordance with method requirements, then immediately placed in an ice-packed cooler, and delivered under chain-of-custody to Eurofins in Albuquerque, New Mexico. The samples were analyzed for VOCs by EPA Method 8260B, ethylene dibromide (EDB) by EPA Method 8011, polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270E SIM, and the dissolved metals aluminum (Al), arsenic (Ar), beryllium (Be), cobalt (Co), chromium (Cr), iron (Fe), and manganese (Mn) by EPA Method 6010B. The analytical laboratory report is provided in Attachment 3.

Survey

The newly installed monitoring wells were surveyed on May 19, 2026, by Wayjohn Surveying, Inc., a New Mexico Licensed Surveyor. All wells were surveyed to New Mexico State Plane Coordinates 1983, North American Datum (NAD) of 1983, and the North American Vertical Datum of 1988. Wells were located to within 0.01 foot horizontal and 0.01 foot vertical. The top of casing elevations for the seven monitoring wells are shown on the Topographic Survey included in Attachment 4.

Soil Analytical Results

Field Screening

The ranges of PID readings recorded during drilling of each of the soil borings are summarized

below:

- MW-EP-04 boring – 0.0 parts per million by volume (ppmv) to 0.8 ppmv
- MW-EP-05 boring – 2.5 ppmv to 4.5 ppmv
- MW-EP-06 boring – 0.1 ppmv to 1.4 ppmv
- MW-EP-07 boring – 0.0 ppmv to 1.7 ppmv
- MW-EP-08 boring – 0.2 ppmv to 2.3 ppmv
- MW-EP-09 boring – 0.0 ppmv to 0.8 ppmv
- MW-EP-10 boring – 0.1 ppmv to 0.4 ppmv

PID readings for field screening samples are shown on the soil boring logs in Attachment 2.

Volatile Organic Compounds – VOCs

VOCs were not detected above laboratory reporting limits (RLs) or New Mexico Environment Department (NMED) Residential Soil Screening Levels (SSLs) in any of the soil samples collected from the seven borings during well installation. A summary of VOC soil sample analytical results is provided in Table 2.

Total Petroleum Hydrocarbons -GRO, -DRO, -MRO

TPH-GRO, -DRO, and -MRO were not detected above laboratory reporting limits (RLs) or NMED Residential SSLs in any of the soil samples collected from the seven borings during well installation except in the sample collected from the 12-14 foot interval in the MW-EP-07 boring. TPH-DRO was detected at a concentration of 3,300 milligrams per kilogram (mg/kg) above the NMED Residential SSL of 1,000 mg/kg. A summary of TPH-GRO, -DRO, and -MRO soil sample analytical results is provided in Table 3.

Groundwater Analytical Results

Volatile Organic Compounds – VOCs

Concentrations of VOCs in groundwater samples were all below laboratory RLs or applicable New Mexico Water Quality Control Commission (NMWQCC) standards except for the sample collected from MW-EP-04 and the duplicate sample MW-EP-04 Dup. Total naphthalenes exceeded the NMWQCC standard of 30 micrograms per liter (µg/L) at 53 µg/L and 69 µg/L, respectively, in the two samples. Groundwater analytical results for VOCs are summarized in Table 5; the distribution of total naphthalenes for the May 2026 groundwater sampling is shown on Figure 2.

Polycyclic Aromatic Hydrocarbons – PAHs

Concentrations of PAHs in groundwater samples were all below laboratory RLs or applicable

NMWQCC standards in samples collected from all seven wells. The laboratory RLs for naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene are lower through EPA Method 8270E SIM than EPA Method 8260B. As a result, total naphthalenes did not exceed the NMWQCC standard of 30 µg/L in either the MW-EP-04 sample (11 µg/L) or the MW-EP-04 Dup sample (9.5 µg/L). Groundwater analytical results for PAHs are summarized in Table 6.

Dissolved Metals – Al, Ar, Be, Co, Cr, Fe, Mn

Dissolved manganese exceeded the NMWQCC standard of 0.2 milligrams per liter (mg/L) in samples collected from the following wells:

- MW-EP-04 (1.5 mg/L)
- MW-EP-04 Dup (1.4 mg/L)
- MW-EP-06 (2.8 mg/L)
- MW-EP-07 (0.41 mg/L)
- MW-EP-09 (0.30 mg/L)
- MW-EP-10 (2.9 mg/L)

None of the other metals (Al, Ar, Be, Co, Cr, Fe) were detected above the laboratory RLs or applicable NMWQCC standards in samples collected from the wells. Groundwater analytical results for dissolved metals are summarized in Table 7; the distribution of dissolved manganese for the May 2026 groundwater sampling is shown on Figure 3. The analytical laboratory report for groundwater samples is included in Attachment 3.

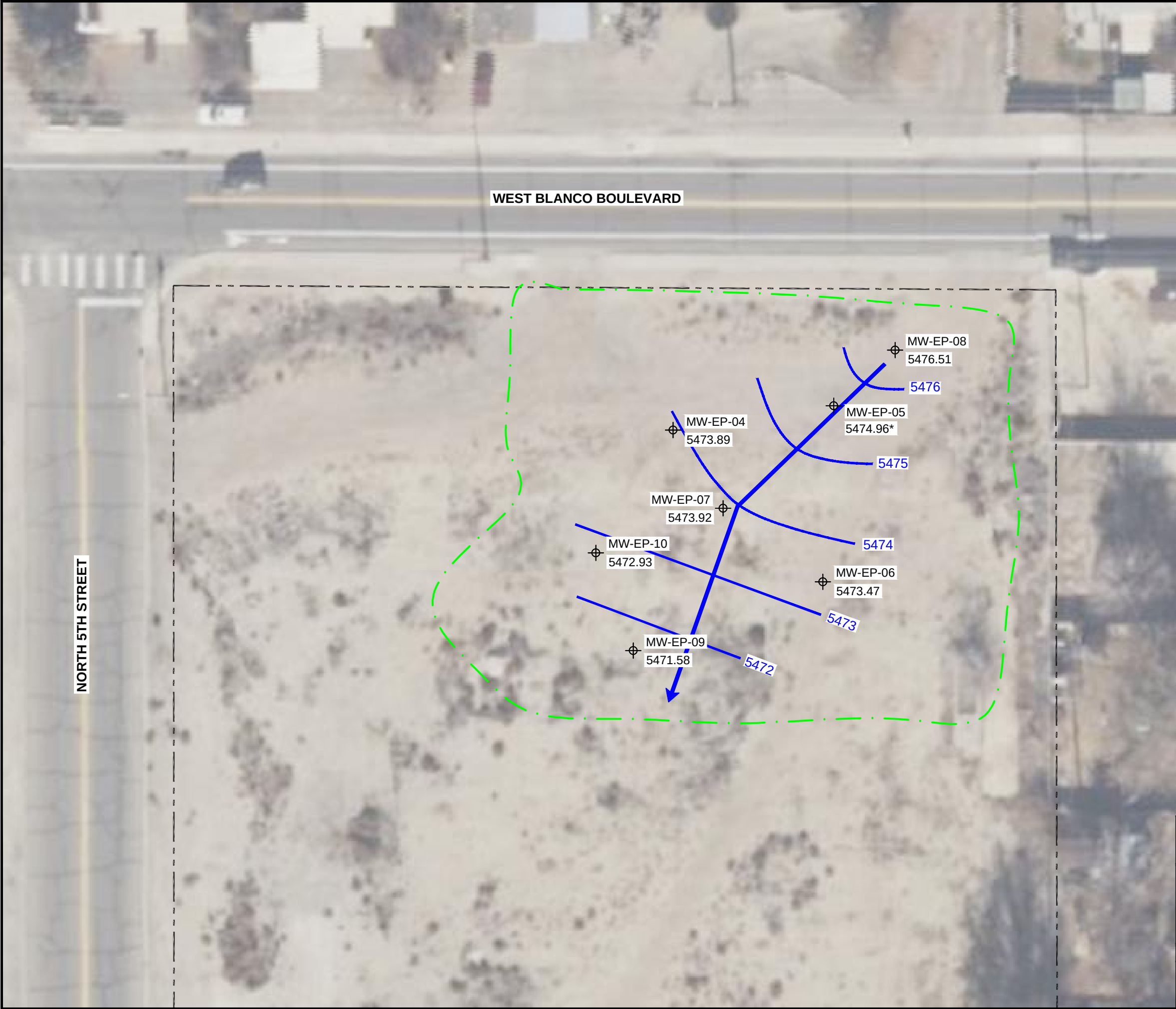
If you have any questions, please do not hesitate to contact me at mmcvey@eaest.com or on my cell phone at 505-235-9037.

Sincerely



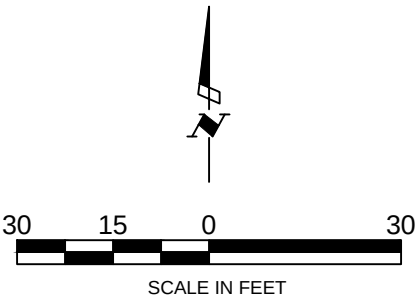
Michael D. McVey, P.G., C.P.G.
Program Manager/Senior Hydrogeologist

FIGURES



LEGEND

- MW-EP -08 5476.51 MONITORING WELL WITH POTENTIOMETRIC SURFACE ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 5476 POTENTIOMETRIC SURFACE ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- PROPERTY BOUNDARY
- APPROXIMATE EDGE OF SOIL REPLACEMENT
- * POTENTIOMETRIC SURFACE ELEVATION NOT USED FOR CONTOURING



FORMER AEREX REFINERY EAST PARCEL
BLOOMFIELD, SAN JUAN COUNTY, NEW MEXICO

FIGURE 1
POTENTIOMETRIC SURFACE MAP
MAY 2026

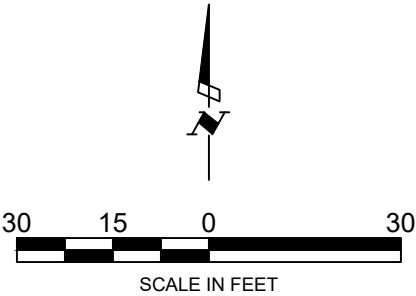
PROJECT #:	16493-04-00	PROJECT PHASE:	8.1	PROJECT MANAGER:	MM
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LEGEND

-  MW-EP-08
<10 MONITORING WELL WITH TOTAL NAPHTHALENE CONCENTRATION IN MICROGRAMS PER LITER
-  PROPERTY BOUNDARY
-  APPROXIMATE EDGE OF SOIL REPLACEMENT

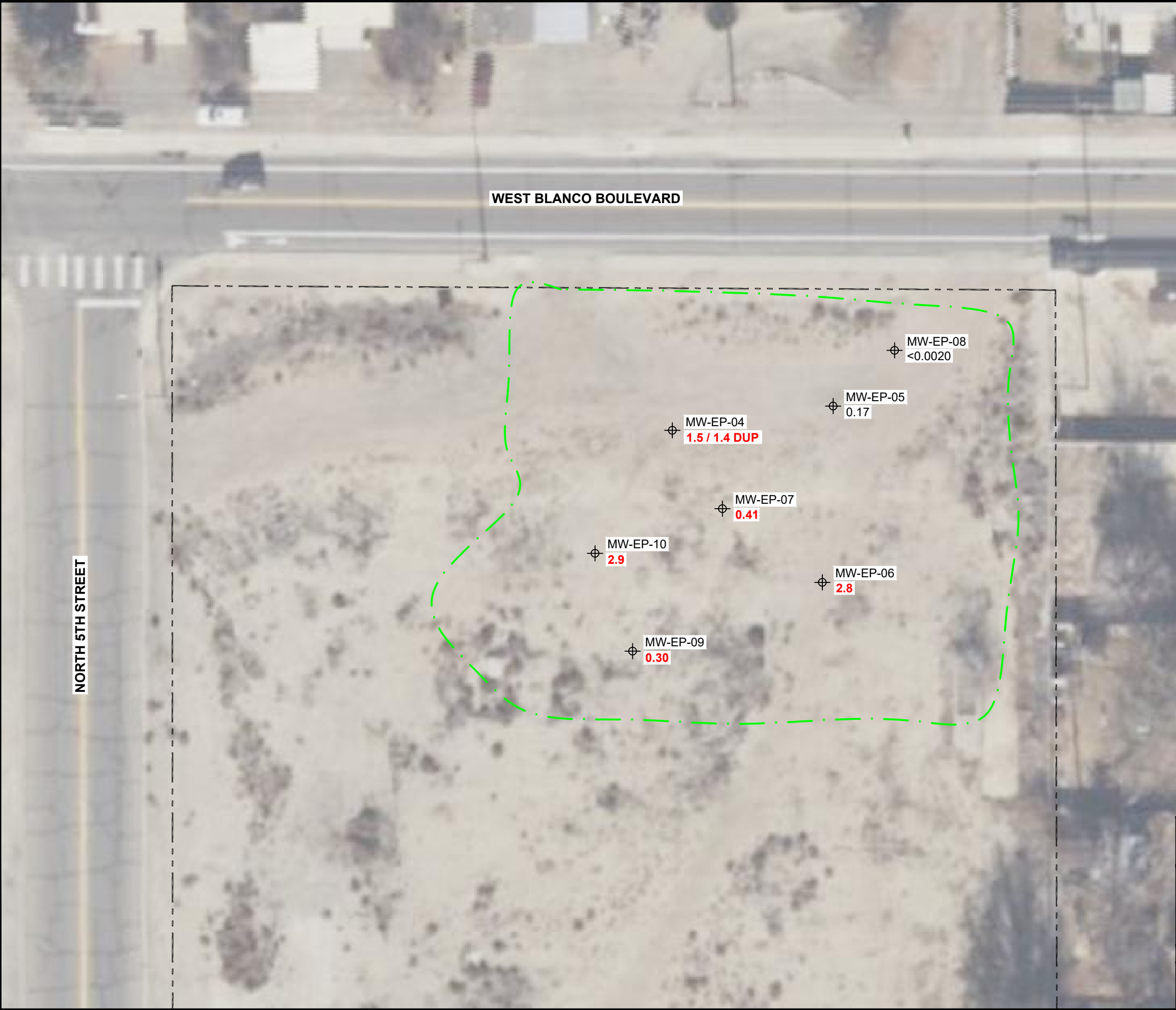
- NOTES:
- BOLD** INDICATES CONCENTRATION ABOVE THE NEW MEXICO WATER QUALITY CONTROL COMMISSION (NMWQCC) STANDARD OF 30 MICROGRAMS PER LITER.
 - SAMPLES ANALYZED BY EPA METHOD 8260B.



FORMER AEREX REFINERY EAST PARCEL
BLOOMFIELD, SAN JUAN COUNTY, NEW MEXICO

FIGURE 2
TOTAL NAPHTHALENE
CONCENTRATIONS IN GROUNDWATER
MAY 2026

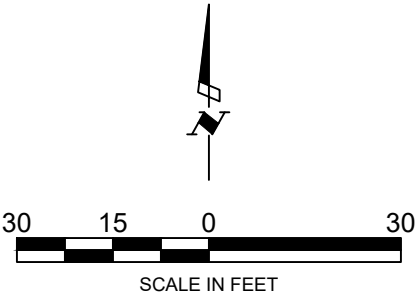
PROJECT #:	16493-04-00	PROJECT PHASE:	8.1	PROJECT MANAGER:	MM
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LEGEND

-  MW-EP-08
<0.0020
MONITORING WELL WITH DISSOLVED MANGANESE CONCENTRATION IN MILLIGRAMS PER LITER
-  PROPERTY BOUNDARY
-  APPROXIMATE EDGE OF SOIL REPLACEMENT

- NOTES:
- BOLD** INDICATES CONCENTRATION ABOVE THE NEW MEXICO WATER QUALITY CONTROL COMMISSION (NMWQCC) STANDARD OF 0.2 MILLIGRAMS PER LITER.
 - SAMPLES ANALYZED BY EPA METHOD 6020B.



FORMER AEREX REFINERY EAST PARCEL
BLOOMFIELD, SAN JUAN COUNTY, NEW MEXICO

FIGURE 3
DISSOLVED MANGANESE
CONCENTRATIONS IN GROUNDWATER
MAY 2026

PROJECT #:	16493-04-00	PROJECT PHASE:	8.1	PROJECT MANAGER:	MM
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TABLES

**TABLE 1. ANALYSES, PRESERVATION, HOLDING TIMES, AND HANDLING
FORMER AEREX REFINERY EAST PARCEL, BLOOMFIELD, NEW MEXICO**

Analyses	Matrix	Method	Container	Preservative	Holding Time	Handling
VOCs	Soil	EPA 8260B	4-ounce glass soil jar, 2 x 20-mL vials	Methanol	14 days	4°Celsius
TPH (GRO, DRO, MRO)	Soil	EPA 8015D	4-ounce glass soil jar	None	14 days	4°Celsius
VOCs	Water	EPA 8260B	3 x 40-mL glass no headspace	HCl	14 days	4°Celsius
EDB	Water	EPA 8011	3 x 40-mL glass no headspace	Na Thiosulfate	14 days	4°Celsius
PAHs	Water	EPA 8270E SIM	1 x 1-L amber glass	None	7 days	4°Celsius
Dissolved Metals	Water	EPA 6020B/7470A	2 x 125-mL plastic, field filtered	HNO ₃	6 months	4°Celsius

Notes:

VOCs = Volatile Organic Compounds + naphthalenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil Range Organics

EDB = Ethylene dibromide

PAHs = Polynuclear Aromatic Hydrocarbons

Dissolved metals to include Aluminum, Arsenic, Beryllium, Cobalt, Chromium, Iron, and Manganese

EPA = U.S. Environmental Protection Agency

mL = Milliliter

HCL = Hydrochloric acid

Na = Sodium

HNO₃ = Nitric acid

**TABLE 2. SUMMARY OF SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
FORMER AEREX REFINERY EAST PARCEL, BLOOMFIELD, NEW MEXICO**

Sample ID	Sample Depth (feet bgs)	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
MW-EP-04-WT	12-14	12-May-26	<0.017	<0.033	<0.033	<0.066	<0.033	<0.033	<0.033	0.32	0.97	0.94
MW-EP-04	16-18		<0.016	<0.031	<0.031	<0.063	<0.031	<0.031	<0.031	<0.063	<0.13	<0.13
MW-EP-05-WT	10-12	13-May-26	<0.020	<0.040	<0.040	<0.079	<0.040	<0.040	<0.040	<0.079	<0.16	<0.16
MW-EP-05	14-16		<0.013	<0.027	<0.027	<0.054	<0.027	<0.027	<0.027	<0.054	<0.11	<0.11
MW-EP-06-WT	12-14	12-May-26	<0.017	<0.033	<0.033	<0.067	<0.033	<0.033	<0.033	<0.067	<0.13	<0.13
MW-EP-06	16-18		<0.016	<0.032	<0.032	<0.065	<0.032	<0.032	<0.032	<0.065	<0.13	<0.13
MW-EP-07-WT	12-14	12-May-26	<0.035	<0.070	<0.070	<0.14	<0.070	<0.070	<0.070	<0.14	3.1	<0.28
MW-EP-07	16-18		<0.016	<0.032	<0.032	<0.063	<0.032	<0.032	<0.032	<0.063	0.23	<0.13
MW-EP-08-WT	12-14	13-May-26	<0.014	<0.029	<0.029	<0.057	<0.029	<0.029	<0.029	<0.057	<0.11	<0.11
MW-EP-08	16-18		<0.016	<0.031	<0.031	<0.063	<0.031	<0.031	<0.031	<0.063	<0.13	<0.13
MW-EP-09-WT	10-12	12-May-26	<0.018	<0.036	<0.036	<0.071	<0.036	<0.036	<0.036	<0.071	0.17	0.17
MW-EP-09	20-22		<0.015	<0.029	<0.029	<0.059	<0.029	<0.029	<0.029	<0.059	<0.12	<0.12
MW-EP-10-WT	10-12	13-May-26	<0.015	<0.030	<0.030	<0.060	<0.030	<0.030	<0.030	<0.060	<0.12	<0.12
MW-EP-10-WT Dup	10-12		<0.016	<0.032	<0.032	<0.063	<0.032	<0.032	<0.032	<0.063	<0.13	<0.13
MW-EP-10	20-22		<0.13	<0.027	<0.027	<0.054	<0.027	<0.027	<0.027	<0.054	<0.11	<0.11
NMED Residential SSL ^a			17.8	5,230	75.1	871	975	0.672	8.32	22.6	172	232

NOTES:

^a Residential land use Soil Screening Levels (SSLs) from the New Mexico Environment Department (NMED) Risk Assessment Guidance for Site Investigations and Remediation, Appendix A, Table A-1, NMED SSLs; and Appendix C, Tables C-1 to C6, Tier 1 TRVs and ESLs and Tier 2 TRVs (November 2022).

BOLD indicates concentration above the NMED Residential SSL.

Samples analyzed by EPA Method 8260B; concentrations reported in milligrams per kilogram (mg/kg).

WT = Sample collected near water table

Dup = Duplicate sample

ft bgs = Feet below ground surface

MTBE = Methyl tertiary butyl ether

EDB = Ethylene dibromide

EDC = Ethylene dichloride

< = Not detected above the laboratory reporting limit

TABLE 3. SUMMARY OF SOIL ANALYTICAL RESULTS
TOTAL PETROLEUM HYDROCARBONS
FORMER AEREX REFINERY EAST PARCEL, BLOOMFIELD, NEW MEXICO

Sample ID	Sample Depth (feet bgs)	Date Sampled	TPH-GRO	TPH-DRO	TPH-MRO
MW-EP-04-WT	12-14	12-May-26	29	120	62
MW-EP-04	16-18		<3.1	74	46
MW-EP-05-WT	10-12	13-May-26	<4.0	<9.6	<48
MW-EP-05	14-16		<2.7	110	53
MW-EP-06-WT	12-14	12-May-26	<3.3	<8.4	<42
MW-EP-06	16-18		<3.2	<8.8	<44
MW-EP-07-WT	12-14	12-May-26	89	3,300	1,400
MW-EP-07	16-18		6.8	20	<48
MW-EP-08-WT	12-14	13-May-26	<2.9	13	<48
MW-EP-08	16-18		4.3	57	<48
MW-EP-09-WT	10-12	12-May-26	<3.6	<9.3	<47
MW-EP-09	20-22		<2.9	<8.6	<43
MW-EP-10-WT	10-12	13-May-26	<3.0	<8.8	<44
MW-EP-10-WT Dup	10-12		<3.2	<8.8	<44
MW-EP-10	20-22		<2.7	<9.6	<48
NMED Residential SSL ^a			100	1,000	3,000

NOTES:

^a Residential land use Soil Screening Levels (SSLs) from the New Mexico Environment Department (NMED) Risk Assessment Guidance for Site Investigations and Remediation, Appendix A, Table A-1, NMED SSLs; and Appendix C, Tables C-1 to C6, Tier 1 TRVs and ESLs and Tier 2 TRVs (November **BOLD** indicates concentration above the NMED Residential SSL.

Samples analyzed by EPA Method 8015D; concentrations reported in milligrams per kilogram (mg/kg).

ft bgs = Feet below ground surface

TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics (C6 to C10)

TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics (C10 to C28)

TPH-MRO = Total Petroleum Hydrocarbons - Motor Oil Range Organics (C28 to C40)

WT = Sample collected from near the water table

Dup = Duplicate sample

< = Not detected above the laboratory reporting limit

**TABLE 4. SUMMARY OF FLUID GAUGING DATA
FORMER AEREX REFINERY EAST PARCEL, BLOOMFIELD, NEW MEXICO**

Well ID	Date Measured	Northing ¹	Easting ¹	Casing Elevation ²	Depth to NAPL ³	NAPL Thickness ⁴	Depth to Water ³	Groundwater Elevation ²
MW-EP-04	21-May-2026	2080798.18	2678941.210	5483.30	-	-	9.41	5473.89
MW-EP-05	21-May-2026	2080805.77	2678991.43	5484.19	-	-	9.23	5474.96
MW-EP-06	21-May-2026	2080750.69	2678988.05	5483.28	-	-	9.81	5473.47
MW-EP-07	21-May-2026	2080773.70	2678956.86	5482.94	-	-	9.02	5473.92
MW-EP-08	21-May-2026	2080823.15	2679010.63	5485.56	-	-	9.05	5476.51
MW-EP-09	21-May-2026	2080729.21	2678928.78	5482.69	-	-	11.11	5471.58
MW-EP-10	21-May-2026	2080759.76	2678917.07	5482.58	-	-	9.65	5472.93

NOTES:

¹ Horizontal control to NM State Plane Coordinates West NAD83 Grid Coordinates (in feet)

² Vertical Control to NAVD88 Datum in feet above mean sea level

³ Measured in feet below the top of casing at survey point on north side of well

⁴ Measured in feet.

NAPL = Nonaqueous-phase liquid

**TABLE 5. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
FORMER AEREX REFINERY EAST PARCEL, BLOOMFIELD, NEW MEXICO**

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene	Total Naphthalenes
NMWQCC Standards		5	1,000	700	620	100	0.05	5	--	--	--	30
MW-EP-04	21-May-26	<1.0	<1.0	1.0	<1.5	<1.0	<0.0093	<1.0	14	21	18	53
MW-EP-04 Dup	21-May-26	<1.0	<1.0	1.5	<1.5	<1.0	<0.0092	<1.0	19	27	23	69
MW-EP-05	21-May-26	<1.0	<1.0	<1.0	<1.5	<1.0	<0.0092	<1.0	<2.0	<4.0	<4.0	<10
MW-EP-06	21-May-26	<1.0	<1.0	<1.0	<1.5	<1.0	<0.0092	<1.0	<2.0	<4.0	<4.0	<10
MW-EP-07	21-May-26	<1.0	<1.0	<1.0	<1.5	<1.0	<0.0093	<1.0	<2.0	<4.0	<4.0	<10
MW-EP-08	21-May-26	<1.0	<1.0	<1.0	<1.5	<1.0	<0.0093	<1.0	<2.0	<4.0	<4.0	<10
MW-EP-09	21-May-26	<1.0	<1.0	<1.0	<1.5	<1.0	<0.0093	<1.0	<2.0	<4.0	<4.0	<10
MW-EP-10	21-May-26	<1.0	<1.0	<1.0	<1.5	<1.0	<0.0092	<1.0	<2.0	5.5	<4.0	5.5

NOTES:

BOLD indicates a concentration exceeding the New Mexico Water Quality Control Commission (NMWQCC) standard.

All samples analyzed for VOCs by EPA Method 8260B and for EDB by EPA Method 8011; concentrations reported in micrograms per liter (µg/L).

MTBE = Methyl tertiary-butyl ether

EDB = Ethylene dibromide

EDC = Ethylene dichloride

Dup = Duplicate sample

**TABLE 6. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
POLYCYCLIC AROMATIC HYDROCARBONS
FORMER AEREX REFINERY EAST PARCEL, BLOOMFIELD, NEW MEXICO**

Well ID	Date Sampled	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene	Total Naphthalenes	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[g,h,i]perylene
NMWQCC Standard		--	--	--	30	--	--	--	--	0.2	--
MW-EP-04	21-May-26	<0.20	11	<0.40	11	0.55	0.50	0.38	0.36	0.097	<0.20
MW-EP-04 Dup	21-May-26	1.5	5.5	2.5	9.5	0.42	0.39	0.25	0.37	0.084	<0.20
MW-EP-05	21-May-26	<0.20	<0.20	<0.40	<0.80	<0.26	<0.20	<0.20	0.41	0.15	<0.20
MW-EP-06	21-May-26	<0.20	0.37	<0.40	0.37	<0.26	<0.20	<0.20	<0.20	<0.035	<0.20
MW-EP-07	21-May-26	<0.20	3.3	<0.40	3.3	0.65	0.38	0.26	0.21	0.042	<0.20
MW-EP-08	21-May-26	1.2	3.2	4.0	8.4	<0.26	0.30	0.30	0.47	0.10	<0.20
MW-EP-09	21-May-26	<0.20	<0.20	<0.40	<0.80	<0.26	<0.20	<0.20	<0.20	<0.035	<0.20
MW-EP-10	21-May-26	<0.20	0.84	<0.40	0.84	<0.26	<0.20	<0.20	<0.20	<0.035	<0.20
Well ID	Date Sampled	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	
NMWQCC Standard		--	--	--	--	--	--	--	--	--	
MW-EP-04	21-May-26	<0.25	<0.20	0.62	<0.20	<1.0	3.3	<0.20	1.4	<0.50	
MW-EP-04 Dup	21-May-26	<0.25	<0.20	0.67	<0.20	<1.0	2.4	<0.20	1.1	0.50	
MW-EP-05	21-May-26	<0.25	<0.20	0.72	<0.20	<1.0	<0.50	<0.20	<0.50	<0.50	
MW-EP-06	21-May-26	<0.25	<0.20	<0.20	<0.20	<1.0	<0.50	<0.20	<0.50	<0.50	
MW-EP-07	21-May-26	<0.25	<0.20	0.40	<0.20	<1.0	1.4	<0.20	0.68	<0.50	
MW-EP-08	21-May-26	<0.25	<0.20	0.77	<0.20	<1.0	2.4	<0.20	2.7	0.71	
MW-EP-09	21-May-26	<0.25	<0.20	<0.20	<0.20	<1.0	<0.50	<0.20	<0.50	<0.50	
MW-EP-10	21-May-26	<0.25	<0.20	<0.20	<0.20	<1.0	<0.50	<0.20	<0.50	<0.50	

NOTES:

BOLD indicates a concentration above the New Mexico Water Quality Control Commission (NMWQCC) standard.

Samples were analyzed for PAHs by EPA Method 8270 SIM; concentrations reported in micrograms per liter (µg/L).

< = Not detected above the laboratory reporting limit

PAHs = Polycyclic aromatic hydrocarbons

**TABLE 7. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DISSOLVED METALS
FORMER AEREX REFINERY EAST PARCEL, BLOOMFIELD, NEW MEXICO**

Well ID	Date Sampled	Aluminum	Arsenic	Beryllium	Cobalt	Chromium	Iron	Manganese
NMWQCC Standards		5.0	0.01	0.004	0.05	0.05	1.0	0.2
MW-EP-04	21-May-26	<0.020	0.0058	<0.0020	<0.0020	<0.0040	<0.020	1.5
MW-EP-04 Dup	21-May-26	<0.020	0.0057	<0.0020	<0.0020	<0.0040	<0.020	1.4
MW-EP-05	21-May-26	<0.020	<0.0040	<0.0020	<0.0020	<0.0040	<0.020	0.17
MW-EP-06	21-May-26	<0.020	<0.0040	<0.0020	<0.0020	<0.0040	<0.020	2.8
MW-EP-07	21-May-26	<0.020	<0.0040	<0.0020	<0.0020	<0.0040	<0.020	0.41
MW-EP-08	21-May-26	0.16	<0.0040	<0.0020	<0.0020	<0.0040	<0.020	<0.0020
MW-EP-09	21-May-26	<0.020	<0.0040	<0.0020	<0.0020	<0.0040	<0.020	0.30
MW-EP-10	21-May-26	<0.020	<0.0040	<0.0020	<0.0020	<0.0040	<0.020	2.9

NOTES:

BOLD indicates a concentration exceeding the New Mexico Water Quality Control Commission (NMWQCC) standard.

All samples analyzed for dissolved metals by EPA Method 6020B/7470A; concentrations reported in milligrams per liter (mg/L).

Samples filtered in the field prior to filling sample containers.

ATTACHMENT 1

OSE WELL PERMITS



STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
AZTEC

Elizabeth K. Anderson, P.E.
State Engineer

100 Gossett Drive, Suite A
Aztec, New Mexico 87410

May 6, 2026

City of Bloomfield
Prudence Brady
915 N. 1st Street
Bloomfield, NM 87413

EA Engineering
Mike McVey
320 Gold Ave. SW, Ste. 1300
Albuquerque, NM 87102

RE: Permit Approval to Drill a Well with No Water Right, SJ-4643 POD17-POD23, City of Bloomfield, Former Aerex Refinery – East Parcel Site Investigation

Greetings:

On April 28, 2026, the New Mexico Office of the State Engineer (NMOSE) received an application for a permit to install seven new boreholes/wells for use related to site investigation activities at the above referenced location. Enclosed is one original of the above numbered permit that has been approved subject to the conditions set forth on the approval page and in the attached Conditions of Approval. Also enclosed is a receipt for the fees paid.

Please be aware that there are deadlines for submitting well records for the newly installed monitoring wells. These deadlines can be found in the attached Conditions of Approval. Additionally, a standardized plugging method has also been included in the Conditions of Approval for the future abandonment of the monitoring wells covered by this permit. This eliminates the need to submit a separate Well Plugging Plan of Operations for approval by the NMOSE prior to plugging, unless an alternate plugging method is proposed, required by a separate oversight agency, necessary due to incompatibility with actual conditions, or artesian conditions are encountered. Well completion and plugging records should be sent to the NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410. **Well records should be filed within 30 days after completion of the well(s).**

If you have any questions regarding permitting action, please feel free to contact the Aztec office at (505) 383-4571.

Sincerely,

Ranee Deechilly
Water Rights Division – District V

Enclosures

cc: Aztec Reading (w/o enclosures)
SJ-4643 File
WATERS



NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable boxes):



For fees, see State Engineer website: <https://www.ose.nm.gov/>

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well*(Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

*New Mexico Environment Department-Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply.

☐ Yes ☒ No Angled/Directional borehole - include schematic and azimuth, inclination, measured depth and true vertical depth.

☒ Temporary Request - Requested Start Date: May 11, 2026 Requested End Date: Unknown

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

Note: if there is known artesian conditions, contamination or high mineral content at the drilling location, include the borehole log or a well log from an existing well at that location. If this information is not submitted, check box and attach form WD-09 to this form. ☐

1. APPLICANT(S)

Name: City of Bloomfield	Name: EA Engineering
Contact or Agent: Prudence Brady	Contact or Agent: Mike McVey
Mailing Address: 915 N. 1st Street	Mailing Address: 320 Gold Ave. SW, Ste. 1300
City: Bloomfield	City: Albuquerque
State: NM	State: NM
Zip Code: 87413	Zip Code: 87102
Phone: (505) 333-7816 Phone (Work): (505) 635-1041	Phone: (505) 235-9037 Phone (Work):
E-mail (optional): pbrady@bloomfieldnm.gov	E-mail (optional): mmcvey@eaest.com

SJ-4643 POD17-POD23
FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 10/02/2024

File No.:	Trn. No.:	Receipt No.: 5-8017
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date: 5-6-2027	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).

District II (Roswell), District V (Aztec) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)

☐ NM West Zone

☐ NM East Zone

☐ NM Central Zone

☐ UTM (NAD83) (Meters)

☐ Zone 12N

☐ Zone 13N

☒ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	-Public Land Survey System (PLSS) (QQQSection, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name	Well Depth in feet	Casing Diameter (OD)
(SJ-4643 POD17) MW-EP-04	-107.984144	36.718280	NE NW NW Sec. 22 T29N R11W	22	2.38
(SJ-4643 POD18) MW-EP-05	-107.983767	36.718280	NE NW NW Sec. 22 T29N R11W	22	2.38
(SJ-4643 POD19) MW-EP-06	-107.983879	36.718169	NE NW NW Sec. 22 T29N R11W	22	2.38
(SJ-4643 POD20) MW-EP-07	-107.983975	36.718209	NE NW NW Sec. 22 T29N R11W	22	2.38
(SJ-4643 POD21) MW-EP-08	-107.983678	36.718339	NE NW NW Sec. 22 T29N R11W	22	2.38

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)

Additional well descriptions are attached: ☒ Yes ☐ No If yes, how many 2

Other description relating well to common landmarks, streets, or other:

Wells will be installed on property located on the SE corner of W. Blanco Blvd. and N. 5th Street in Bloomfield, NM (see attached figure).

Well is on land owned by: City of Bloomfield (access agreement attached).

Well Information: NOTE: If casings telescope or involve nested casing, please provide diagram. Attached? ☐ Yes ☒ No

Approximate depth to water (feet): 12

Outside diameter of well casing (inches): 2

Driller Name: Enviro-Drill

Driller License Number: ~~WD-1188-X~~ WD-1848

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

EA Engineering has been contracted by the NMED Ground Water Quality Bureau to install compliance groundwater monitoring wells on the property formerly occupied by the Aerex Refinery after completion of a remedial action involving excavation of contaminated soil at the site. The wells will be used to monitor trends in contaminant concentrations in groundwater after completion of the excavation. The duration of monitoring is unknown.

2026 APR 28 AM 9 06

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO

FOR OSE INTERNAL USE

Application for Permit, Form WR-07 Version 10/02/2024

File No.: SJ-4643 POD17-POD23

Trn No.:

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory*: Is proposed well a future public water supply well? ☐ Yes ☐ NO If Yes, an application must be filed with NMED-DWB, concurrently. ☐ Include a description of any proposed pump test, if applicable.	Pollution Control and/or Recovery: ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge. ☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	Construction De-Watering: ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of. Ground Source Heat Pump: ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	Mine De-Watering: ☐ Include a plan for Mine De-Watering, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
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(* if exploration or monitoring drilling activity is required by NMED, then you must also submit the NMED Work Plan)

ACKNOWLEDGEMENT

I, **We (name of applicant(s))**, Michael McVey

Print Name(s)

affirm that the foregoing statements are true to the best of (my,our) knowledge and belief.

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 6th day of May 20 26, for the State Engineer,

Elizabeth K. Anderson, P.E., State Engineer

By: [Signature]
Signature

Ranee Deechilly
Print

Title: Water Resources Professional
Print



FOR OSE INTERNAL USE

Application for Permit, Form WR-07 Version 10/02/2024

File No.: SJ-4643 POD17-POD23

Trn No.:



NEW MEXICO OFFICE OF THE STATE ENGINEER



ATTACHMENT 1 POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

a. Is this a: ☐ Move-From Point of Diversion(s) OR ☒ Move-To/New Point of Diversion(s)			b. Information on Attachment(s): Number of points of diversion involved in the application: <u>7</u> Total number of pages attached to the application: <u>6</u>		
☐ Surface Point of Diversion OR ☒ Well					
Name of ditch, acequia, or spring:					
Stream or water course:					
Tributary of:					
c. Location (Required): Required: Move to/New POD location coordinate(s) must be either New Mexico State Plane (NAD 83), UTM (NAD 83), or Lat/Long (WGS84)					
NM State Plane (NAD83) (feet) NM West Zone ☐ NM Central Zone ☐ NM East Zone ☐	UTM (NAD83) (meters) Zone 13N ☐ Zone 12N ☐	☒ Lat/Long— (WGS84) 1/10 th of second	OTHER (allowable only for move-from descriptions - see application form for format) ☐ PLSS (quarters, section, township, range) ☐ Hydrographic Survey, Map & Tract ☐ Lot, Block & Subdivision ☐ Grant	Well Depth (in feet) *Required on new wells	Casing outside diameter (in inches) *Required on new wells
POD Number: SJ-4643 (POD22) MW-EP-09	X or Longitude -107.983723	Y or Latitude 36.718092	Other Location Description: NE NW NW Sec. 22 T29N R11W	22	2.38
POD Number: MW-EP-10 (POD23)	X or Longitude -107.984144	Y or Latitude 36.718092	Other Location Description: NE NW NW Sec. 22 T29N R11W	22	2.38
POD Number:	X or Longitude	Y or Latitude	Other Location Description:		
POD Number:	X or Longitude	Y or Latitude	Other Location Description:		
POD Number:	X or Longitude	Y or Latitude	Other Location Description:		
POD Number:	X or Longitude	Y or Latitude	Other Location Description:		
POD Number:	X or Longitude	Y or Latitude	Other Location Description:		
POD Number:	X or Longitude	Y or Latitude	Other Location Description:		
POD Number:	X or Longitude	Y or Latitude	Other Location Description:		

2026 APR 28 AM 9:00
STATE ENGINEER OFFICE
AZTEC, NEW MEXICO

FOR USE INTERNAL USE

Form WR-08 Version 07/16/2024
POD DESCRIPTIONS - ATTACHMENT 1

File Number: SJ-4643 POD17-POD23

Trn Number:

Trans Description (optional):

NMOSE Permit to Drill a Well(s) With No Water Right - Conditions of Approval
SJ-4643 POD17 – POD23

The New Mexico Office of the State Engineer (NMOSE) has determined that existing water rights will not be impaired by this activity. This application is approved without publication provided it is not exercised to the detriment of any others having existing rights and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state. This application approval (i.e., permit) is further subject to the following conditions of approval.

1. This permit is approved as follows:

Permittee(s): City of Bloomfield
(via Mike McVey, EA Engineering, as agent)
915 N. 1st Street
Bloomfield, NM 87413

Permit Number: SJ-4643

Application File Date: April 28, 2026

Priority: N/A

Source: Groundwater

Point(s) of Diversion: SJ-4643 POD17 through POD23 consists of seven proposed borings/groundwater monitoring wells that are intended for temporary use to conduct soil/groundwater sampling activities associated with the Former Aerex Refinery – East Parcel site investigation. The wells and soil borings (aka, point of diversion; POD) are located on land owned by the City of Bloomfield in San Juan County, New Mexico. The PODs are located within the NE/4 NW/4 NW/4 of Section 22, Township 29 North, Range 11 West, NMPM, at the approximate point locations (Long/Lat, WGS84) indicated in Table 1.

Table 1: Proposed Soil Borings/Monitoring Wells

POD Number and Owner's Well Name	Casing: Outside Diameter (inches) and Depth (feet)		Longitude (Decimal Degrees)	Latitude (Decimal Degrees)
SJ-4643 POD17 (MW-EP-04)	2.38	22	-107.984144	36.718280
SJ-4643 POD18 (MW-EP-05)	2.38	22	-107.983767	36.718280
SJ-4643 POD19 (MW-EP-06)	2.38	22	-107.983879	36.718169
SJ-4643 POD20 (MW-EP-07)	2.38	22	-107.983975	36.718209
SJ-4643 POD21 (MW-EP-08)	2.38	22	-107.983678	36.718339
SJ-4643 POD22 (MW-EP-09)	2.38	22	-107.983723	36.718092
SJ-4643 POD23 (MW-EP-10)	2.38	22	-107.984144	36.718092

Purpose of Use: Groundwater monitoring and sampling

Place of Use: N/A

Conditions of Approval

Amount of Water: N/A

2. No water shall be appropriated and beneficially used from any wells or borings approved under this permit.
3. No water shall be diverted from the well(s) except for initial well development and periodic sampling purposes. Upon completion of monitoring activities, the well(s) shall be plugged in accordance with Subsection C of 19.27.4.30 NMAC, unless a permit to use water is acquired from the NMOSE.
4. The well(s) may continue to be used indefinitely for groundwater sampling or monitoring required for the current site investigation and any associated remediation, so long as they remain in good repair. **A new permit shall be obtained from the NMOSE prior to replacing a well(s) or for any change in use as approved herein.**
5. Water well drilling and well drilling activities, including well plugging, are regulated under NMOSE Regulations 19.27.4 NMAC. These regulations apply and provide both general and specific direction regarding the drilling of wells in New Mexico. Note that the construction of any well that allows groundwater to flow uncontrolled to the land surface or to move appreciably between geologic units is prohibited.
6. In accordance with Subsection A of 19.27.4.29 NMAC, on-site supervision of well drilling/plugging is required by the holder of a New Mexico Well Driller License or a NMOSE-registered Drill Rig Supervisor. The New Mexico licensed Well Driller shall ensure that well drilling activities are completed in accordance with 19.27.4.29, 19.27.4.30 and 19.27.4.31 NMAC. However, pursuant to 72-12-12 NMSA 1978 and 19.27.4.8 NMAC, a driller's license is not required for the construction of a driven well with an outside casing diameter of 2 $\frac{3}{4}$ inches or less and that does not require the use of a drill rig (e.g., auger) for installation. This exemption is not applicable to well plugging.
7. The permittee has not stated whether artesian conditions are likely to be encountered at the proposed well/borehole location(s). However, if artesian conditions are encountered during drilling, all rules and regulations pertaining to the drilling and casing and plugging of artesian wells shall be followed.
8. A Well Record documenting the as-built well construction and materials used shall be filed for each of the new wells in accordance with Subsection N of 19.27.4.29 NMAC. **Well Records shall be filed with the State Engineer (NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410) within 30 days after completion of the well(s).** Well installation(s) shall be complete, and the well record(s) filed no later than one year from the date of approval of this permit. The well record form is available at <https://www.ose.nm.gov/Statewide/wdForms.php>.
9. **If the required Well Record documentation is not received within one year of the date of permit approval, this permit will automatically expire.**
10. When the permittee receives approval or direction to permanently abandon the well(s)/borehole(s) covered by this permit, plugging shall be performed by a New Mexico licensed well driller. The well(s)/borehole(s) shall be plugged pursuant to Subsection C of 19.27.4.30 NMAC using the following method, unless an alternate plugging method has been

Conditions of Approval

proposed by or on behalf of the well owner and approved by the NMOSE. If a well/borehole has encountered artesian conditions, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities concerning artesian wells. Additionally, if the following standardized plugging sealant is not appropriate for use due to incompatibility with the water quality or any soil and water contaminants encountered, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities.

- a. Obstructions in a well/borehole shall be identified and removed if possible. If an obstruction cannot be removed, the method used to grout below and around the obstruction shall be described in detail in the plugging record.
- b. Prior to plugging, calculate the theoretical volume of sealant needed for abandonment of the well/borehole based on the actual measured pluggable depth of the well/borehole and the volume factor for the casing/borehole diameter. Compare the actual volume of sealant placed in the well/borehole with the theoretical volume to verify the actual volume of sealant is equal to or exceeds the theoretical volume.
- c. Portland Type I/II cement shall be used for the plugging sealant. The water mixed with the cement to create the plugging sealant shall be potable water or of similar quality. Portland cement has a fundamental water demand of 5.2 gallons of water per 94-lb sack of cement. Up to a maximum of 6.0 gallons per 94-lb sack is acceptable to allow for greater pumpability.

Pure bentonite powder ("90 barrel yield") is allowed as a cement additive by NMOSE and American Water Works Association (AWWA) guidelines. If a bentonite additive is used, the following rates and mixing guidelines shall be followed. For a rate or a mixing procedure other than that provided below, the NMOSE District V office must be contacted for pre-approval. Neither granular bentonite nor extended-yield bentonite shall be mixed with cement for the purpose of this plugging activity. When supplementing a cement slurry with bentonite powder, water demand for the mix increases at a rate of approximately 0.65 gallon of water for each 1% increment of bentonite bdwc (by dry weight cement) above the stated base water demand of 5.2 gallons water per 94-lb sack of cement for neat cement. Bentonite powder must be hydrated separately with its required increment of water before being mixed into the wet neat cement. If water is otherwise added to the combination of dry ingredients or the dry bentonite is blended into wet cement, the alkalinity of the cement will restrict the yield of the bentonite powder, resulting in excess free water in the slurry and excessive cement shrinkage upon curing.

- d. Placement of the sealant within the well/borehole shall be by pumping through a tremie pipe extended to near the bottom of the well/borehole and kept below the top of the slurry column (i.e., immersed in the slurry) as the well/borehole is plugged from bottom upwards in a manner that displaces the standing water column.
- e. Prior to, or upon completion of plugging, the well casing may be cut-off below grade as necessary to allow for approved construction onsite, provided a minimum six-inch thickness of reinforced abandonment plugging sealant or concrete completely covers the top of the cut-off casing. Any remaining void to the surface may be filled with native soil, concrete, or asphalt as needed to match the surrounding surface material and blended with the surface topography to prevent ponding.

- f. **Within 30 days after completion of well/borehole plugging, a complete Plugging Record shall be filed with the State Engineer** in accordance with Paragraph (3) of Subsection C of 19.27.4.30 NMAC for each well/boring plugged. The Well Plugging Record(s) shall be filed with the State Engineer at the NMOSE District V Office, 100 Gossett Drive, Suite A, Aztec, NM 87410. The well plugging record form is available at <https://www.ose.nm.gov/Statewide/wdForms.php>.
11. In accordance with Subsection C of 19.27.4.30 NMAC, a well/borehole that does not encounter groundwater may be immediately plugged by filling with drill cuttings or clean native fill to within 10 feet of land surface and by plugging the remaining 10 feet to the land surface with a sealant approved by the Office of the State Engineer. A Plugging Record shall be filed with the State Engineer as described above.
12. Should another regulatory agency sharing jurisdiction of the project authorize, or by regulation require, more stringent requirements than stated herein, the more stringent procedure should be followed. These, among others, may include provisions regarding pre-authorization to proceed, type of methods and materials used, inspection, or prohibition of free discharge of any fluid or other material to or from the well that is related to the drilling and/or monitoring process.
13. Pursuant to 72-12-3 NMSA 1978, the applicant may or may not have provided written documentation which the applicant claims as confirmation that access has been granted for the aforementioned well(s) to be located on property owned by someone other than the well owner/applicant. NMOSE approval of this permit in no way infers the right of access to land not owned by the well owner/applicant.
14. The State Engineer retains jurisdiction of this permit.

The application for Permit to Drill a Well(s) With No Water Right for well(s) SJ-4643 POD17-POD23, submitted on April 28, 2026, is hereby approved with the aforesaid conditions applied, when signed by an authorized designee of the State Engineer:

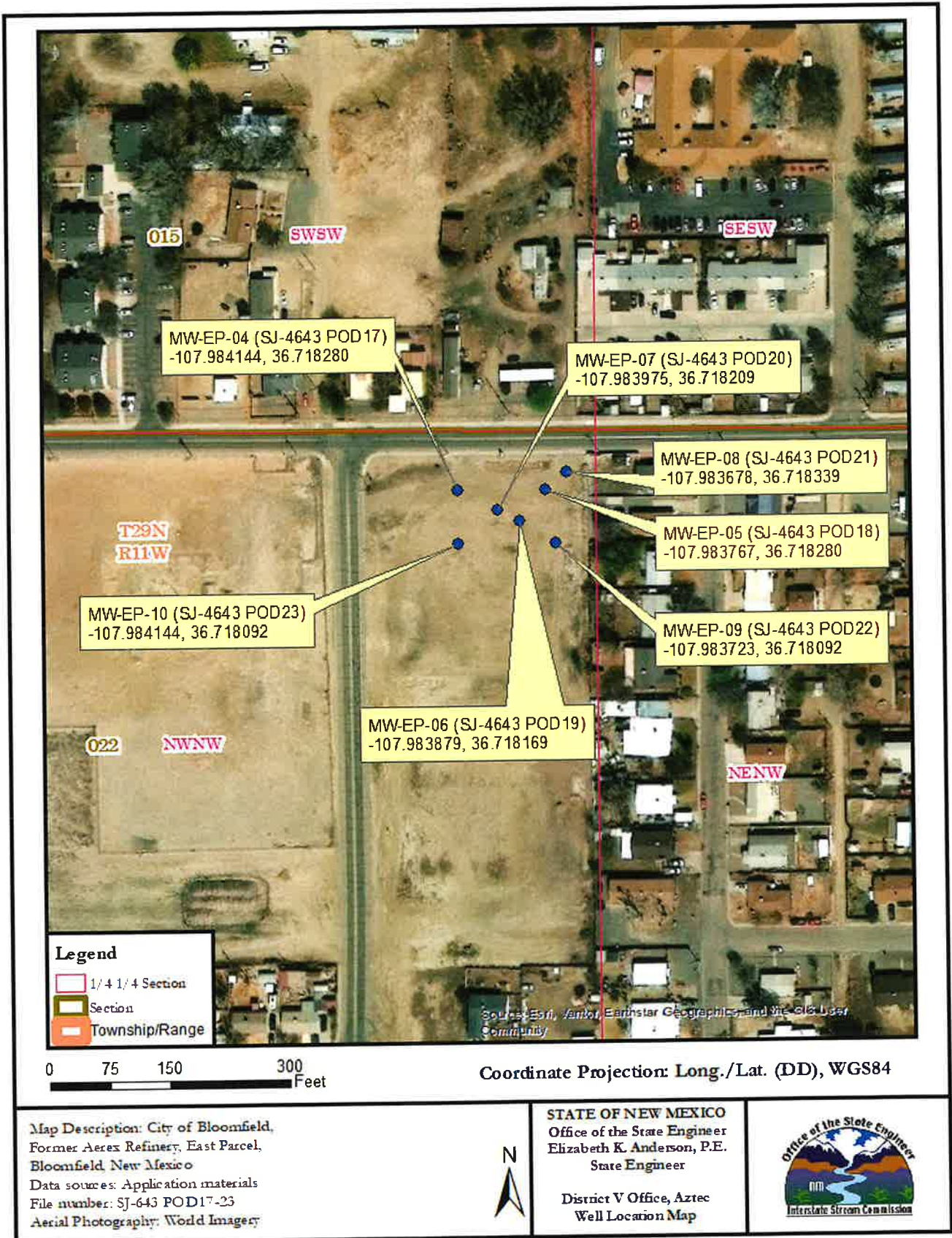
Witness my hand and seal this 6th day of May, A.D. 2026.
Elizabeth K. Anderson, P.E., State Engineer

By:


Raneer Deechilly
Water Rights Division District V



Conditions of Approval



ATTACHMENT 2

SOIL BORING LOGS AND WELL COMPLETION DIAGRAMS



EA Engineering, Science, and Technology, Inc., PBC

BORING/WELL CONSTRUCTION LOG

Project: Aerex Refinery	Project Number: 16493-04-00-TM
Drilling Company: Enviro Drill	Start Time/Date: 0836 / 05-12-26
Drilling Rig/Bit: CME-75	Completion Time/Date: 1039 / 05-12-26
Driller: Ryan Begay	Final Depth: 22'
Boring/Well ID: MW-EP-04	Logged By: M. Rames-Schultz Page 1 of 1

Sample Type	Sample Recovery (In)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details		
SS	8		0.0		1	0'-2' Overburden, mulch	Grout	2" Schedule 40 PVC	Grout
					2				
SS	9		0.0	SP	3	2'-4' SAA			
					4				
SS	20		0.3		5	4'-6' Poorly graded sand with gravel, reddish brown (5YR 4/3), moist, loose, medium course grain			
					6				
SS	24		0.2		7	6'-8' SAA			
					8				
SS	24		0.4	GP	9	8'-10' SAA, increasing amount of gravel downward			
					10				
SS	12		0.7	SP	11	10'-12' Gravel with course sand, very dark grey (5YR 3/1), wet, loose, subangular gravel			
					12				
SS	10	X	0.8		13	12'-14' Poorly graded sand, very dark gray (5YR 3/1), wet, loose			
					14				
SS	7		0.3	SM	15	14'-16' SAA			
					16				
SS	18	X	0.8		17	16'-18' Silty sand, very dark gray (5YR 3/1), wet, loose, slightly plastic			
					18				
SS	20		0.6	SP	19	18'-20' SAA			
					20				
SS	8		0.7		21	20'-22' Poorly graded sand, dark gray (5YR 4/1), wet, loose			
					22				
					23				
					24				
					25				
					26	Grout: 1'-4' bgs			
					27	Hole Plug: 4'-6' bgs (1-bag)			
					28	Sand: 6'-22' bgs (8-bags)			
					29	2" PVC Screen: 7'-22' bgs			
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				



EA Engineering, Science, and Technology, Inc., PBC

BORING/WELL CONSTRUCTION LOG

Project: Aerex Refinery						Project Number: 16493-04-00-TM					
Drilling Company: Enviro Drill						Start Time/Date: 0822 / 05-13-26					
Drilling Rig/Bit: CME-75						Completion Time/Date: 1019 / 05-13-26					
Driller: Ryan Begay						Final Depth: 22'					
Boring/Well ID: MW-EP-05						Logged By: M. Rames-Schultz Page 1 of 1					
Sample Type	Sample Recovery (In)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/minerology, other)			Boring and/or Well Details		
SS	18		3.6		1	0'-2' Overburden, mulch			Grout	2" Schedule 40 PVC	Grout
					2						
SS	0		NR		3	2'-4' No Recovery					
				SP	4						
SS	24		4.5		5	4'-9' Poorly graded sand with gravel, dark brown (7.5YR 3/3), moist,					
					6	loose					
SS	24		3.6		7				Sand		
					8						
SS	24		3.5	GW	9						
					10	9'-12' Well graded gravel with sand, dark brown (7.5YR 3/3), loose,					
SS	16	X	3.9		11	moist, subangular gravel, wet @ 12' bgs					
					12						
SS	0		NR		13	12'-14' No Recovery - Driller having split spoon issues					
				SM	14						
SS	24	X	3.2		15	14'-15' Silty sand, very dark gray (7.5YR 3/1), loose, wet					
				ML	16	15'-16' Sandy silt, very dark gray (7.5YR 3/1), slightly plastic, wet					
SS	0		NR		17	16'-18' No Recovery					
					18						
SS	21		2.5		19	18'-20' Sandy silt, very dark gray (7.5YR 3/1), slightly plastic, wet					
					20						
SS	0		NR		21	20'-22' No Recovery					
					22						
					23						
					24						
					25						
					26	Grout: 1'-4' bgs					
					27	Hole Plug: 4'-6' bgs (1-bag)					
					28	Sand: 6'-22' bgs (8-bags)					
					29	2" PVC Screen: 7'-22' bgs					
					30						
					31						
					32						
					33						
					34						
					35						
					36						
					37						
					38						
					39						
					40						



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BORING/WELL CONSTRUCTION LOG

Project: Aerex Refinery						Project Number: 16493-04-00-TM	
Drilling Company: Enviro Drill						Start Time/Date: 1529 / 05-12-26	
Drilling Rig/Bit: CME-75						Completion Time/Date: 1731 / 05-12-26	
Driller: Ryan Begay						Final Depth: 22'	
Boring/Well ID: MW-EP-06						Logged By: M. Rames-Schultz Page 1 of 1	
Sample Type	Sample Recovery (In)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
SS	17		1.4		1	0'-3' Overburden, mulch, backfill	Grout
					2		
SS	22		1.3	SP	3		
					4	3'-7' Poorly graded sand with gravel, reddish brown (5YR 4/4),	2" Schedule 40 PVC
SS	24		0.8		5	dry, loose, subangular gravle	
					6		
SS	22		0.9	GW	7		Sand
					8	7'-9' Well graded gravel with sand, brown (7.5YR 4/3), loose, dry,	
					9	subangular gravel	
SS	20		0.1		10	9'-12' Poorly graded sand, very dark gray (7.5YR 3/1), moist, loose,	Sand
					11	medium coarse grain	
SS	8		0.6	SM	12		
SS	24	X	0.3		13	12'-15' Silty sand, very dark gray (7.5YR 3/1), wet, loose	Sand
					14		
					15		
SS	16		0.3	ML	16	15'-20' Sandy silt, very dark gray (7.5YR 3/1), wet, loose,	Sand
					17	fining downward	
					18		
SS	21		0.3		19		Sand
				SM	20		
					21	20'-22' Silty sand, dark gray (7.5YR 4/1), wet, loose,	
SS	24		0.2		22	medium coarse grain	Sand
					23		
					24		
					25		Grout: 1'-4' bgs
					26		
					27	Hole Plug: 4'-6' bgs (1-bag)	
					28	Sand: 6'-22' bgs (8-bags)	2" PVC Screen: 7'-22' bgs
					29		
					30		
					31		
					32		
					33		
					34		
					35		
					36		
					37		
					38		
					39		
					40		



EA Engineering, Science, and Technology, Inc., PBC

BORING/WELL CONSTRUCTION LOG

Project: Aerex Refinery						Project Number: 16493-04-00-TM	
Drilling Company: Enviro Drill						Start Time/Date: 1339 / 05-12-26	
Drilling Rig/Bit: CME-75						Completion Time/Date: 1514 / 05-12-26	
Driller: Ryan Begay						Final Depth: 22'	
Boring/Well ID: MW-EP-07						Logged By: M. Rames-Schultz Page 1 of 1	
Sample Type	Sample Recovery (In)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
SS	8		0.0	SP	1	0'-2.5' Overburden, mulch, backfill	Grout
SS	20		0.1		2		
					3	2.5'-7' Poorly graded sand with gravel, reddish brown (5YR 4/3),	2" Schedule 40 PVC
					4	moist, loose, subangular gravel, gravel increasing downward	
SS	22		0.2		5		Grout
					6		
SS	20		0.4	GW	7		Sand
					8	7'-12' Well graded gravel with sand, reddish brown (5YR 4/3), loose,	
SS	17		1.7		9	dry, subangular gravel	Sand
					10		
SS	18		0.2	SP	11		Sand
					12		
SS	15	X	0.4		13	12'-15' Poorly graded sand, very dark gray (5YR 3/1), wet, loose,	Sand
					14	medium coarse grain	
SS	21		0.2	SM	15		Sand
					16	15'-19' Sandy silt, reddish brown (5YR 4/3), slightly plastic, wet,	
SS	19	X	0.3		17	loose, fining downward	Sand
					18		
SS	20		0.1	ML	19		Sand
					20	19'-22' Sandy silt, reddish brown (5YR 4/3), wet, slightly plastic	
SS	16		0.2		21		Sand
					22		
					23		Sand
					24		
					25		Sand
					26	Grout: 1'-4' bgs	
					27	Hole Plug: 4'-6' bgs (1-bag)	Sand
					28	Sand: 6'-22' bgs (8-bags)	
					29	2" PVC Screen: 7'-22' bgs	Sand
					30		
					31		Sand
					32		
					33		Sand
					34		
					35		Sand
					36		
					37		Sand
					38		
					39		Sand
					40		



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BORING/WELL CONSTRUCTION LOG

Project: Aerex Refinery						Project Number: 16493-04-00-TM	
Drilling Company: Enviro Drill						Start Time/Date: 1317 / 05-13-26	
Drilling Rig/Bit: CME-75						Completion Time/Date: 1458 / 05-13-26	
Driller: Ryan Begay						Final Depth: 22'	
Boring/Well ID: MW-EP-08						Logged By: M. Rames-Schultz Page 1 of 1	
Sample Type	Sample Recovery (In)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
SS	16		0.4		1 2	0'-3' Backfill, mulch	Grout
SS	18		0.2	SP	3 4	3'-7' Poorly graded sand, brown (7.5YR 4/3), loose, moist, trace gravel	
SS	15		0.4		5 6		2" Schedule 40 PVC
SS	17		0.5	GW	7 8	7'-12' Well graded gravel with sand, dark brown (7.5YR 3/3), loose, moist	
SS	18		2.3		9 10		Sand
SS	6		0.2	SP	11 12		
SS	22	X	0.3		13 14	12'-15' Poorly graded sand, very dark gray (7.5YR 3/1), loose, wet	Sand
SS	12		0.2	ML	15 16	15'-22' Sandy silt, very dark gray (7.5YR 3/1), medium dense, slightly plastic, wet	
SS	24	X	0.3		17 18		Grout
SS	22		0.3		19 20		
SS	20		0.3		21 22		Grout
					23 24		
					25 26	Grout: 1'-4' bgs	Grout
					27 28	Hole Plug: 4'-6' bgs (1-bag)	
					29 30	Sand: 6'-22' bgs (8-bags)	Grout
					31 32	2" PVC Screen: 7'-22' bgs	
					33 34		Grout
					35 36		
					37 38		Grout
					39 40		



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BORING/WELL CONSTRUCTION LOG

Project: Aerex Refinery						Project Number: 16493-04-00-TM	
Drilling Company: Enviro Drill						Start Time/Date: 1052 / 05-12-26	
Drilling Rig/Bit: CME-75						Completion Time/Date: 1239 / 05-12-26	
Driller: Ryan Begay						Final Depth: 22'	
Boring/Well ID: MW-EP-09						Logged By: M. Rames-Schultz Page 1 of 1	
Sample Type	Sample Recovery (In)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
SS	22		0.0		1	0'-3' Overburned, mulch, backfill	Grout
					2		
SS	20		0.4	SP	3	3'-5' Poorly graded sand, reddish brown (5YR 4/3), loose, moist,	2" Schedule 40 PVC
					4	trace gravel	
SS	24		0.0		5		Grout
					6	5'-7' Poorly graded sand with gravel, dark reddish brown (5YR 3/3),	
SS	24		0.4	SM	7	loose, moist	
					8	7'-12' Silty sand, very dark gray (5YR 3/1), moist, loose,	
SS	22		0.8		9	slightly plastic, wet @ 12 ft bgs	
					10		
SS	20	X	0.4	SP	11		Sand
					12		
SS	21		0.0		13	12'-17' Poorly graded sand, dark reddish brown (5YR 3/3), wet, loose,	Sand
					14	medium coarse grain	
SS	24		0.1		15		
					16		
SS	24		0.5	SM	17		
					18	17'-19' Silty sand, very dark gray (5YR 3/1), wet, loose, slightly plastic	
SS	24		0.5	ML	19		
					20	19'-22' Sandy silt, very dark gray (5YR 3/1), wet, moderate plastic	
SS	24	X	0.6		21		
					22		
					23		
					24		
					25		
					26	Grout: 1'-4' bgs	
					27	Hole Plug: 4'-6' bgs (1-bag)	
					28	Sand: 6'-22' bgs (8-bags)	
					29	2" PVC Screen: 7'-22' bgs	
					30		
					31		
					32		
					33		
					34		
					35		
					36		
					37		
					38		
					39		
					40		



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BORING/WELL CONSTRUCTION LOG

Project: Aerex Refinery						Project Number: 16493-04-00-TM	
Drilling Company: Enviro Drill						Start Time/Date: 1037 / 05-13-26	
Drilling Rig/Bit: CME-75						Completion Time/Date: 1222 / 05-13-26	
Driller: Ryan Begay						Final Depth: 22'	
Boring/Well ID: MW-EP-10						Logged By: M. Rames-Schultz Page 1 of 1	
Sample Type	Sample Recovery (In)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
SS	20		0.3		1 2	0'-2' Backfill, mulch	Grout
SS	4		0.1	SP	3 4	2'-4' Very little recovery of mulch and backfill	
SS	24		0.3	SM	5 6	4'-5' Poorly graded sand, brown (7.5YR 3/3), loose, moist, medium coarse grain	2" Schedule 40 PVC
SS	24		0.3	ML	7 8	5'-7' Silty sand, dark brown (7.5YR 3/3), loose, moist 7'-8' Sandy silt, dark brown (7.5YR 3/4), moderately plastic, moist, medium dense	
SS	23		0.2	SM	9 10	8'-11' Silty sand, dark brown (7.5YR 3/3), loose, moist	Sand
SS	24	X	0.3	SP	11 12	11'-18' Poorly graded sand, very dark gray (7.5YR 3/1), wet, loose, medium coarse grain	
SS	24		0.3		13 14		Sand
SS	24		0.4		15 16		
SS	24		0.2	ML	17 18		Sand
SS	22		0.1		19 20	18'-22' Sand silt, brown (7.5YR 4/4), medium dense, wet, slightly plastic	
SS	15	X	0.5		21 22		
					23 24		
					25 26	Grout: 1'-4' bgs	
					27 28	Hole Plug: 4'-6' bgs (1-bag) Sand: 6'-22' bgs (8-bags)	
					29 30	2" PVC Screen: 7'-22' bgs	
					31 32		
					33 34		
					35 36		
					37 38		
					39 40		