2RF-127 - Muy Wayno Recycling Facility ID [fAB1807557108] C-147 Annual Extension 2024-2025/ Engineering Drawings/ Original Application

[373075] XTO PERMIAN OPERATING LLC. January 31, 2024.

Kristen Houston
Regulatory Analyst
XTO Permian Operating, LLC
6401 Holiday Hill Road, Bldg 5
Midland, TX 79707

XTO ENERGY
An ExxonMobil Subsidiary

January 19, 2024

Victoria Venegas
ENMRD-Oil Conservation Division
Environmental Bureau -
506 W. Texas Ave.
Artesia, NM 88210

Re: Administrative Order 2RF-127
Muy Wayno Recycling Facility Containment Permit Extension
Facility ID (fab1807557108)

Victoria,

XTO Permian Operating, LLC. Respectfully requests a one-year extension to the existing C-147 permit for the Muy Wayno Recycling Facility. The annual extension requests of the Permit 2RF-127 Muy Wayno recycling Facility ID (fab1807557108) from March 14, 2024, to March 13, 2025.

If you have any questions or need any additional information, please feel free to contact me at (432)894-1588.

Sincerely,

Kristen Houston

Kristen Houston
Regulatory Analyst

Muy Wayno FRAC PIT

LEAK DETECTION DATA

Procedure for Performing Monthly Leak Detection Test for NCFR(Non-commercial fluid recycling) Pits

1) Drain sump to estabilish a zero baseline and note time

2) After 24 hours, drain sump and note volume of water recovered

NORTH PIT: Brackish Water

Month	Action	Date	Time	Volume Recovered from Sump (gal)	Meter Start/Stop	NOTES:
Jan-23	INITIAL Pond Drain			5		
	24 HR Leak Detection	01/04/23	24hr		5	
	INITIAL Pond Drain			10		
	24 HR Leak Detection	01/11/23	24hr		10	
	INITIAL Pond Drain			10		
	24 HR Leak Detection	01/18/23	24hr		10	
	INITIAL Pond Drain			35		
	24 HR Leak Detection	01/25/23	24hr		35	
Feb-23	INITIAL Pond Drain	02/01/23		50		
	24 HR Leak Detection		24hr		50	
	INITIAL Pond Drain			60		
	24 HR Leak Detection	02/08/23	24hr		60	
	INITIAL Pond Drain			65		
	24 HR Leak Detection	02/15/23	24hr		65	
	INITIAL Pond Drain			65		
	24 HR Leak Detection	02/22/23	24hr		65	
Mar-23	INITIAL Pond Drain			65		
	24 HR Leak Detection	03/01/23	24hr		65	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	03/08/23	24hr		0	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	03/15/23	24hr		0	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	03/22/23	24hr		0	
Apr-23	INITIAL Pond Drain		24HR	1,694 gal		
	24 HR Leak Detection	04/04/23			1,694 gal	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	04/11/23	24hr		0	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	04/18/23	24hr		0	
	INITIAL Pond Drain			1,500 gal		
	24 HR Leak Detection	04/25/23	24 hr		1,500 gal	
May-23	INITIAL Pond Drain			1,326		
	24 HR Leak Detection	05/02/23	24hr		1,326	
	INITIAL Pond Drain			150		
	24 HR Leak Detection	05/09/23	24hr		150	
	INITIAL Pond Drain			270		
	24 HR Leak Detection	05/16/23	24hr		270	

	INITIAL Pond Drain			0		
	24 HR Leak Detection	05/23/23	24hr		0	
Jun-23	INITIAL Pond Drain			292	292	
	24 HR Leak Detection	06/06/23	24hr			
	INITIAL Pond Drain			2,583		
	24 HR Leak Detection	06/13/23	24hr		2,583	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	06/20/23	24hr		0	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	06/27/23	24hr		0	
Jul-23	INITIAL Pond Drain			668		
	24 HR Leak Detection	07/04/23	24hr		668	
	INITIAL Pond Drain			564		
	24 HR Leak Detection	07/11/23	24hr		564	
	INITIAL Pond Drain			420		
	24 HR Leak Detection	07/18/23	24hr		420	
	INITIAL Pond Drain			477		
	24 HR Leak Detection	07/25/23	24hr		477	
Aug-23	INITIAL Pond Drain			150		
	24 HR Leak Detection	08/01/23	24hr		150	
	INITIAL Pond Drain			270		
	24 HR Leak Detection	08/08/23	24hr		270	
	INITIAL Pond Drain			315		
	24 HR Leak Detection	08/15/23	24hr		315	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	08/22/23	24hr		0	
Sep-23	INITIAL Pond Drain			225		
	24 HR Leak Detection	09/05/23	24hr		225	
	INITIAL Pond Drain			176		
	24 HR Leak Detection	09/12/23	24hr		176	
	INITIAL Pond Drain			200		
	24 HR Leak Detection	09/19/23	24hr		200	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	09/26/23	24hr		0	
Oct-23	INITIAL Pond Drain			300		
	24 HR Leak Detection	10/04/23	24hr		300	
	INITIAL Pond Drain			170		
	24 HR Leak Detection	10/11/23	24hr		170	
	INITIAL Pond Drain			260		
	24 HR Leak Detection	10/18/23	24hr		260	
	INITIAL Pond Drain			90		
	24 HR Leak Detection	10/25/23	24hr		90	
Nov-23	INITIAL Pond Drain			65		
	24 HR Leak Detection	11/01/23	24hr		65	
	INITIAL Pond Drain			218		
	24 HR Leak Detection	11/08/23	24hr		218	
	INITIAL Pond Drain			78		
	24 HR Leak Detection	11/15/23	24hr		78	
	INITIAL Pond Drain			165		

	24 HR Leak Detection	11/22/23	24hr		165	
Dec-23	INITIAL Pond Drain			77		
	24 HR Leak Detection	12/06/23	24hr		77	
	INITIAL Pond Drain			103		
	24 HR Leak Detection	12/13/23	24hr		103	
	INITIAL Pond Drain			63		
	24 HR Leak Detection	12/20/23	24hr		63	
	INITIAL Pond Drain			43		
	24 HR Leak Detection	12/27/23	24hr		43	

South PIT: Recycled Produced Water

Month	Action	Date	Time	Volume Recovered from Sump (gal)	Meter Start/Stop	NOTES:
Jan-23	INITIAL Pond Drain			80		
	24 HR Leak Detection	01/04/23	24hr		80	
	INITIAL Pond Drain			50		
	24 HR Leak Detection	01/11/23	24hr		50	
	INITIAL Pond Drain			115		
	24 HR Leak Detection	01/18/23	24hr		115	
	INITIAL Pond Drain			60		
	24 HR Leak Detection	01/25/23	24hr		60	
Feb-23	INITIAL Pond Drain			145		
	24 HR Leak Detection	02/01/23	24hr		145	
	INITIAL Pond Drain			70		
	24 HR Leak Detection	02/08/23	24hr		70	
	INITIAL Pond Drain			80		
	24 HR Leak Detection	02/15/23	24hr		80	
	INITIAL Pond Drain			60		
	24 HR Leak Detection	02/22/23	24hr		60	
Mar-23	INITIAL Pond Drain			40		
	24 HR Leak Detection	03/01/23	24hr		40	
	INITIAL Pond Drain			60		
	24 HR Leak Detection	03/08/23	24hr		60	
	INITIAL Pond Drain			55		
	24 HR Leak Detection	03/15/23	24hr		55	
	INITIAL Pond Drain			70	0	
	24 HR Leak Detection	03/22/23	24hr		70	
Apr-23	INITIAL Pond Drain			1,560 gal	0	
	24 HR Leak Detection	04/04/23	24hr		1560 gal	
	INITIAL Pond Drain			15		
	24 HR Leak Detection	04/11/23	24hr		15	
	INITIAL Pond Drain			544		
	24 HR Leak Detection	04/18/23	24hr		544	
	INITIAL Pond Drain			1,600 gal		
	24 HR Leak Detection	04/25/23	24 hr		1,600 gal	
	INITIAL Pond Drain			1,332		
	24 HR Leak Detection	05/02/23	24hr		1,332	

May-23	INITIAL Pond Drain			1,190		
	24 HR Leak Detection	05/09/23	24hr		1,190	
	INITIAL Pond Drain			947		
	24 HR Leak Detection	05/16/23	24hr		947	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	05/23/23	24hr		0	
Jun-23	INITIAL Pond Drain			690		
	24 HR Leak Detection	06/06/23	24hr		690	
	INITIAL Pond Drain			2,959		
	24 HR Leak Detection	06/13/23	24hr		2,959	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	06/20/23	24hr		0	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	06/27/23	24hr		0	
Jul-23	INITIAL Pond Drain			802		
	24 HR Leak Detection	07/04/23	24hr		802	
	INITIAL Pond Drain			3,437		
	24 HR Leak Detection	07/11/23	24hr		3,437	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	07/18/23	24hr		0	
	INITIAL Pond Drain			0		
	24 HR Leak Detection	07/25/23	24hr		0	
Aug-23	INITIAL Pond Drain			600		
	24 HR Leak Detection	08/01/23	24hr		600	
	INITIAL Pond Drain			725		
	24 HR Leak Detection	08/08/23	24hr		725	
	INITIAL Pond Drain			690		
	24 HR Leak Detection	08/15/23	24hr		690	
	INITIAL Pond Drain			800		
	24 HR Leak Detection	08/22/23	24hr		800	
Sep-23	INITIAL Pond Drain			840		
	24 HR Leak Detection	09/05/23	24hr		840	
	INITIAL Pond Drain			778		
	24 HR Leak Detection	09/12/23	24hr		778	
	INITIAL Pond Drain			820		
	24 HR Leak Detection	09/19/23	24hr		820	
	INITIAL Pond Drain			900		
	24 HR Leak Detection	09/26/23	24hr		900	
Oct-23	INITIAL Pond Drain			700		
	24 HR Leak Detection	10/04/23	24hr		700	
	INITIAL Pond Drain			760		
	24 HR Leak Detection	10/11/23	24hr		760	
	INITIAL Pond Drain			800		
	24 HR Leak Detection	10/18/23	24hr		800	
	INITIAL Pond Drain			600		
	24 HR Leak Detection	10/25/23	24hr		600	
	INITIAL Pond Drain			480		
	24 HR Leak Detection	11/01/23	24hr		480	
	INITIAL Pond Drain			700		

Nov-23	24 HR Leak Detection	11/08/23	24hr		700	
	INITIAL Pond Drain			730		
	24 HR Leak Detection	11/15/23	24hr		730	
	INITIAL Pond Drain			640		
	24 HR Leak Detection	11/22/23	24hr		640	
Dec-23	INITIAL Pond Drain			200		
	24 HR Leak Detection	12/06/23	24hr		200	
	INITIAL Pond Drain			530		
	24 HR Leak Detection	12/13/23	24hr		530	
	INITIAL Pond Drain			530		
	24 HR Leak Detection	12/20/23	24hr		530	
	INITIAL Pond Drain			328		
	24 HR Leak Detection	12/27/23	24hr		328	

State of New Mexico
Energy Minerals and Natural Resources
Department Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505
https://www.emnrd.nm.gov/ocd/ocd-e-permitting/

Form C-147
Revised October 11, 2022

Recycling Facility and/or Recycling Containment

Type of Facility: [X] Recycling Facility [X] Recycling Containment*

Type of action: [X] Permit [ ] Registration
[ ] Modification [X] Extension
[ ] Closure [ ] Other (explain) _____

*** At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.**

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: XTO Permian Operating LLC (For multiple operators attach page with information) OGRID #: 373075
Address: 6401 Holiday Hill Rd Bldg 5 Midland Tx 79707
Facility or well name (include API# if associated with a well): Muy Wayno Recycling Facility
OCD Permit Number: 2RF-127/fAB1807557108 (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr C/F Section 7 Township 25S Range 30E County: Eddy
Surface Owner: [X] Federal [ ] State [ ] Private [ ] Tribal Trust or Indian Allotment

2.
[X] **Recycling Facility:**
Location of recycling facility (if applicable): Latitude 32.148530 Longitude -103.922354 NAD83
Proposed Use: [X] Drilling* [X] Completion* [X] Production* [X] Plugging *
The re-use of produced water may NOT be used until fresh water zones are cased and cemented
[ ] Other, ***requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.***
[X] Fluid Storage
[ ] Above ground tanks [X] Recycling containment [ ] Activity permitted under 19.15.17 NMAC explain type_____
[ ] Activity permitted under 19.15.36 NMAC explain type:_____ [ ] Other explain _____
[ ] For multiple or additional recycling containments, attach design and location information of each containment
[ ] **Closure Report (required within 60 days of closure completion):** [ ] Recycling Facility Closure Completion Date:_____

3.
[X] **Recycling Containment:**
[X] Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)
Center of Recycling Containment (if applicable): Latitude 32.147612 Longitude -103.922285 NAD83
[ ] For multiple or additional recycling containments, attach design and location information of each containment
[X] Lined [ ] Liner type: Thickness _____mil [X] LLDPE [X] HDPE [ ] PVC [ ] Other _____
[ ] String-Reinforced
Liner Seams: [X] Welded [ ] Factory [ ] Other _____ Volume: 500,000 x 2 bbl Dimensions: L 700' x W 1150' x D 16'
[ ] Recycling Containment Closure Completion Date:_____

4.

Bonding:

☒ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC **(These containments are limited to only the wells owned or operated by the owners of the containment.)**

☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond $_____ **(work on these facilities cannot commence until bonding amounts are approved)**

☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

Fencing:

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☒ Alternate. Please specify 8' game fence w/ 3 strands barbed wire

6.

Signs:

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

7.

Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

If a Variance is requested, it must be approved prior to implementation.

8.

Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

General siting

Ground water is less than 50 feet below the bottom of the Recycling Containment. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; written approval obtained from the municipality	☐ Yes ☒ No ☐ NA
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map	☐ Yes ☒ No
Within a 100-year floodplain. FEMA map	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; aerial photo; satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No

9.
Recycling Facility and/or Containment Checklist:
Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

- ☐ Design Plan - based upon the appropriate requirements.
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements.
- ☐ Closure Plan - based upon the appropriate requirements.
- ☐ Site Specific Groundwater Data -
- ☐ Siting Criteria Compliance Demonstrations –
- ☐ **Certify that notice of the C-147 (only) has been sent to the surface owner(s)**

10.
Operator Application Certification:
I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): Kristen Houston Title: Regulatory Analyst
Signature: Kristen Houston Date: 01/19/2023
e-mail address: kristen.houston@exxonmobil.com Telephone: (432)894-1588

11.
OCD Representative Signature: Victoria Venegas **Approval Date:** 01/31/2024
Title: Environmental Specialist **OCD Permit Number:** 2RF-127
- ☒ OCD Conditions
- ☐ Additional OCD Conditions on Attachment

- All field seams and welds will be subjected to non-destructive field testing by qualified personnel per the appropriate testing standard to ensure proper thermal sealing. Field seams will be overlapped a minimum of 6-inches.
- The primary (upper) liner will be protected from excessive hydraulic force or mechanical damage from discharge or suction within the recycling containment. No discharge or suction lines will penetrate the liners.
- The recycling containment will be constructed with a 200 mil geonet leak detection system located between the primary (upper) and the secondary (lower) liners. The system is properly designed to facilitate effective drainage, collection, and removal of liquid above the secondary (lower) liner and the leakage detection at the earliest possible time.
- The recycling containment is designed to prevent run on of surface water. The minimal distance from the existing surface elevation to the top of the containment berm will be approximately 10 feet.

Stockpiling of Topsoil

Where topsoil is present, prior to constructing the recycling containment, it will be stripped and stockpiled on site for use as final cover or fill.

Signs

An upright sign no less than 12 inches by 24 inches with lettering no less than 2 inches in height will be installed in a conspicuous place on the fence surrounding the recycling containment. The sign will be installed in such a manner and location that a person can easily read the sign. The sigh will include:

- The operator's name;
- The location of the site by quarter-quarter or unit letter, section, township and range; and
- Emergency telephone number.

Fencing

The recycling containment will be constructed with an eight (8) foot high game fence equipped with 3 strands of barbed wire at the top to deter unauthorized wildlife and human access. The fence will be gated to provide access to operations personnel and will be closed and locked when access is not required.

Netting and Wildlife Protection

The recycling containment has been designed and will be equipped with an audible avian species protection system, which effectively deters birds from approaching the area. Due to the size of the proposed recycling containment structure, design, construction and maintenance of netting is not practicable. XTO has evaluated multiple alternatives and has determined that an audible system is the most effective and viable option. XTO proposes to install an electronic sonic/ultrasonic avian deterrence system equivalent or equal to the Bird-X BroadBand Pro or the Bird-X Mega Blaster Pro.

Audible systems have been and are being used by other operators with registered recycling containment facilities in southeast New Mexico and have been proven effective.

The O&M plan calls for the operator to inspect for and within 30 days of discovery, report the discovery of dead migratory birds or other wildlife to the appropriate wildlife agency and to the division district office in order to facilitate assessment and implementation of measures to prevent incidents from reoccurring.

Operating and Maintenance Plan

The recycling containment will be operated in such a manner to contain liquids and solids. The integrity of the liner and leak detection system will be monitored in such a manner to prevent contamination of fresh water and protect public health and the environment as described below. The purpose of the recycling containment is to facilitate recycling of treated produced water from nearby oil and gas wells for new well completions. When treated produced water is not needed for well completion activity, produced water will be properly injected at one of XTO's or a third party's authorized SWDs. The recycling containment will not be used for disposal of produced water or other oilfield wastes.

The recycling containment and associated leak detection system will be inspected at least weekly by XTO field operations personnel while it contains any fluid and the results of the inspection will be documented on an inspection checklist. The completed checklists will be retained and made available for review upon request. These inspections will address, at a minimum, the following:

- Removal of any visible layer of oil from the liquid surface;
- Verification that a minimum of 4-foot freeboard is maintained;
- If a liner breach is identified above the liquid surface, the liner will be repaired or liner replacement will be initiated within 48 hours of detection. Alternatively, the NMOCD district office will be contacted within 48 hours to seek and extension for liner repair / replacement;
- If a liner breach is identified below the liquid surface, all liquid above the identified breach will be removed, the NMOCD district office will be notified, and liner repair / replacement shall be initiated within 48 hours of discovery;
- Visual inspection of berm integrity and condition to ensure the prevention of surface water run-on; and
- Determination that an oil absorbent boom is present and in proper condition to contain an unanticipated release.

The containment will be equipped with permanent HDPE stingers (supported by a sacrificial liner) for withdrawal of fluid during operations so that external discharge or suction lines do not penetrate the liner.

Treated produced water deposits into and withdrawals from the recycling containment will be measured and documented to determine when the system has ceased operations (less than 20% of the total fluid capacity is used during each rolling six-month period following the initial withdrawal of produced water.

XTO will submit Form C-148 monthly to NMOCD within 30 days of the end of the calendar month listing: volumes of produced water received; volumes of fresh or brackish water received; and total volumeof water leaving the recycling facility.

Upon cessation of operation, the NMOCD district office will be notified. XTO will submit to NMOCD a completed Form C-148 within 30 days following the end of each calendar month. Each submittal will certify that the recycling containment has not ceased operation based on the 20% threshold described above.

Closure Plan

After operations cease (less than 20% of the total fluid capacity is used every six months following the initial withdrawal of produced water), all fluids will be removed within 60 days and the recycling containment closed within six months.

All removed liquids, solids, and liner materials will be removed and transferred to an NMOCD-approved disposal facility within the six month period.

A five-point composite sample will be collected from beneath the containment and tested for contamination. The composite sample will include stained or wet soil areas, if any, and analyzed for constituents listed in Table I of 19.15.34.14 NMAC.

- If any contaminant concentration exceeds the values listed in Table I (based on depth from bottom of containment to groundwater), the NMOCD district office will be contacted requesting approval before proceeding with closure activity.
- If all contaminant concentrations are less than or equal to the values listed in Table I, closure will proceed by backfilling with non-waste containing, uncontaminated, earthen material.

Within 60 days of completing closure, a Closure Report on NMOCD Form C-147, including required attachments, will be submitted to document all closure activities including sampling results and details of any backfilling, capping, or covering, were applicable. The Closure Report will certify that all information in the report and attachments is correct and that all applicable closure requirements and conditions specified in NMOCD rules and directives have been met.

The recycling containment's locations will be reclaimed to a safe and stable condition that blends with the surrounding undisturbed areas. Topsoil and subsoil will be replaced to their original relative positions and contoured to achieve erosion control, long-term stability, and preservation of surface water flow patterns.

The location will be reseeded in the first favorable growing season following closure with the goal of substantially restoring the impact surface location to the existing condition prior to construction of the recycling containment. Surface reclamation will be deemed complete when: all ground surface disturbing activities have been completed; a uniform vegetative cover with a life-form ratio of plus or minus 50% of pre-disturbance levels has been established; and a total percent plant over of at least 70%, excluding noxious weeds, has been established.

Surface reclamation obligations imposed by the Bureau of Land Management or New Mexico State Trust Land on lands managed by those agencies will supersede these requirements, provided that these other requirements provide equal or greater protection of fresh water, human health, and the environment. NMOCD will be notified when reclamation and re-vegetation are complete.

Financial Assurance Requirement

XTO has existing financial assurance in place with NMOCD as required by 19.15.8 NMAC and use of the recycling containment will be limited to support completion of only wells owned and operated by XTO. Therefore, no additional financial assurance associated with the recycling containment is required.

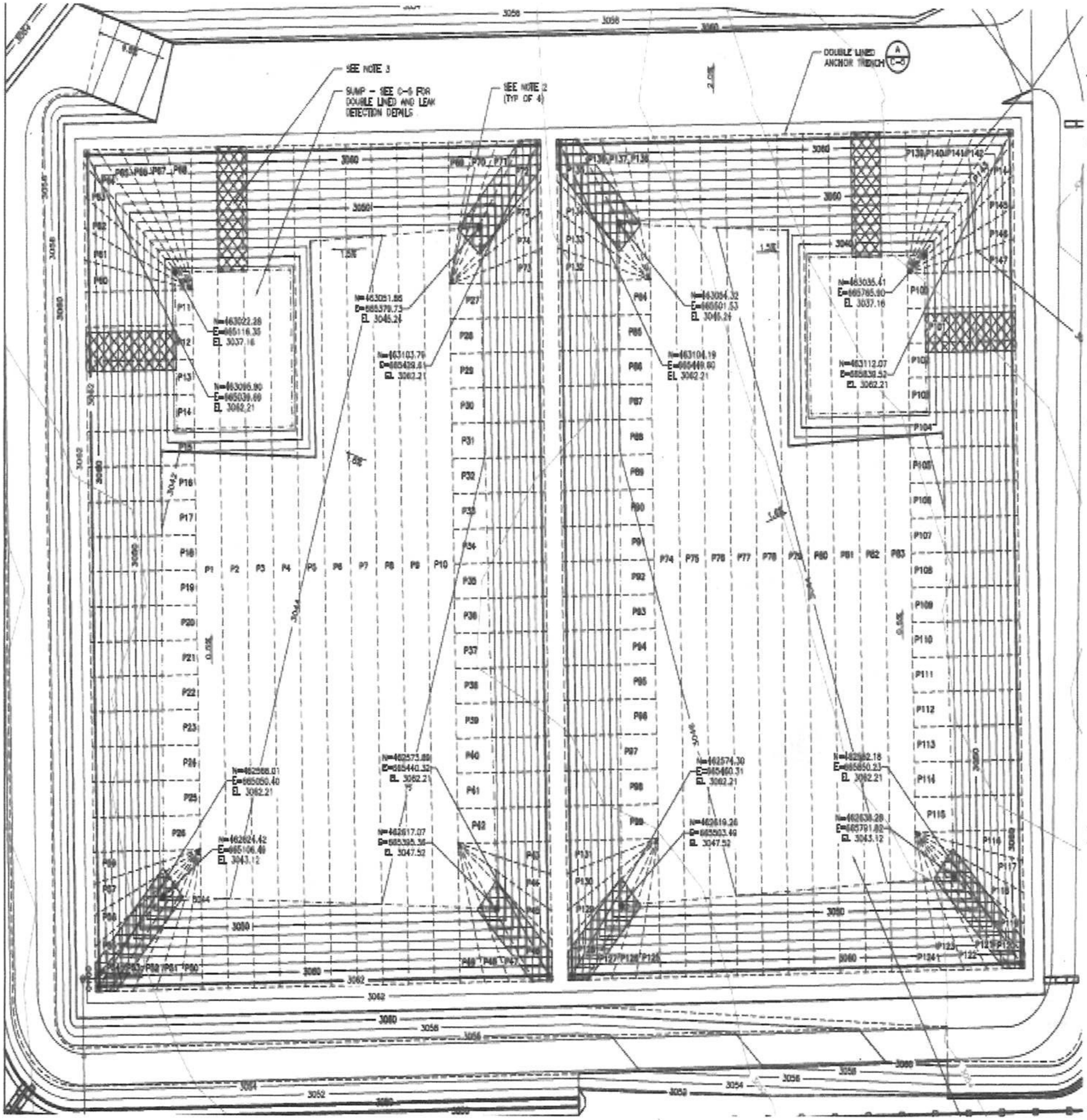
3.3 EXCAVATING, STOCKPILING, AND WASTING TOPSOIL

A. If present, excavate topsoil from areas designated for project grading or construction, as encountered. In addition, excavate topsoil from areas designated for use as waste locations for earth subsoil material.

B. Remove lumped soil, vegetative material, boulders, and rocks from the excavated topsoil to be stockpiled.

C. Stockpile, if available, sufficient topsoil material on-site for use as vegetative cover for future reclamation purposes. Protect stockpile from erosion and grade to prevent ponding of water. Organic soils shall be segregated from soil materials that may be suitable for other uses described in these SPECIFICATIONS and shown on the DRAWINGS.

D. Dispose of excess topsoil and waste topsoil not intended for reuse in a location selected by the OWNER. Disposal and handling of this material shall be performed following the requirements of the appropriate government agencies.



N →

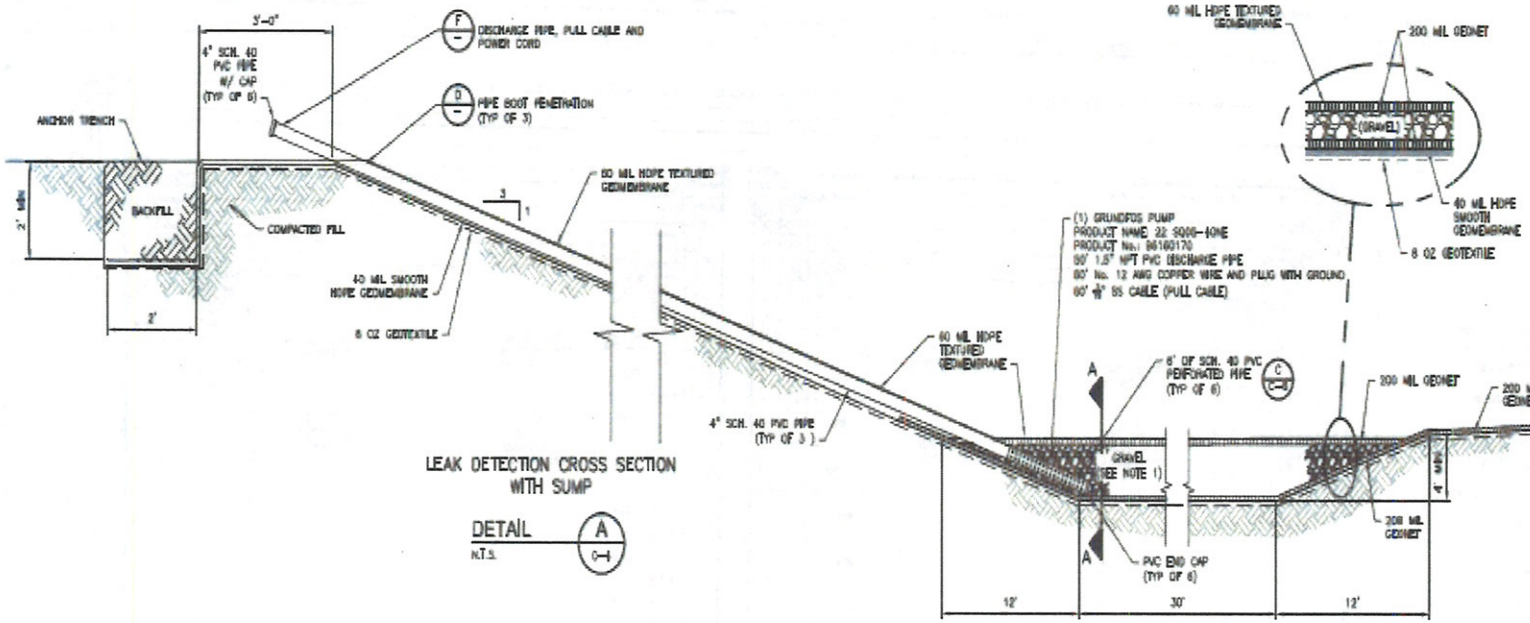
NOTES:

1. INSTALLER TO SIGN SUBGRADE ACCEPTANCE FORM (PROVIDED BY OWNER REPRESENTATIVE) ONLY PRIOR TO INSTALLATION.
2. CONTRACTOR TO PROVIDE SUBMITTAL OF LINER PANEL LAYOUT.
3. A 3' DIAMETER MINIMUM PIECE OF 40 MIL LINER SHALL BE EXTRUDED WELDED WHERE THE PIE SHAPED CORNER SECTIONS MEET FOR SEAM REINFORCEMENT.
4. INSTALL A FULL DOUBLE WIDTH SECTION OF BLACK 60 MIL TEXTURED HDPE GEOMEMBRANE RUB SHEET. EXTRUDE WELD TO LINER. WELDS SHALL BE 2" LONG AND SPACED EVERY 12" ALONG BOTH SIDES OF THE SHEET. DO NOT WELD END EDGES. SECTION SHALL EXTEND FROM SUMP AND INSTALLED INTO LINER ANCHOR TRENCH AS SHOWN.
5. CONTRACTOR SHALL PLACE SANDBAGS ON LINER DURING INSTALLATION AS REQUIRED TO PREVENT WIND UPLIFT UNTIL POND IS FILLED TO A DEPTH OF 3 FEET.
6. CONTRACTOR SHALL INSPECT GRADED SURFACE FOR DEBRIS, ROCKS OR OTHER MATERIAL THAT MAY DAMAGE THE LINER.
7. CONTRACTOR SHALL ROLL SURFACE WITH A SMOOTH ROLLER TO ELIMINATE RUTS.
8. CONTRACTOR SHALL USE BLACK 40 MIL HDPE GEOMEMBRANE AS THE PRIMARY LINER AND GREY 60 MIL HDPE TEXTURED MEMBRANE AS THE SECONDARY LINER.
9. LINER TO BE INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES (GSE INSTALLATION QUALITY ASSURANCE MANUAL AND THE GSE DROP-IN SPECIFICATIONS FOR GEOMEMBRANES – WWW.GSEWORLD.COM).
10. ALL SEAMS MUST BE WELDED WITH A 6" MINIMUM OVERLAP.
11. CONTRACTOR SHALL NON-DESTRUCTIVELY TEST ALL SEAMS THEIR FULL LENGTH USING AN AIR PRESSURE OR VACUUM TEST. THE PURPOSE OF THIS TEST IS TO CHECK THE CONTINUITY OF THE SEAM PER THE INSTALLATION QUALITY ASSURANCE MANUAL.
12. FOR AIR PRESSURE TESTING, THE FOLLOWING PROCEDURES ARE APPLICABLE TO THE SEAMS WELD WITH DOUBLE SEAM FUSION WELDER.
    a. THE EQUIPMENT USED SHALL CONSIST OF AN AIR TANK OR PUMP CAPABLE OF PRODUCING A MINIMUM 35 PSI AND A SHARP NEEDLE WITH A PRESSURE GAUGE ATTACHED TO INSERT INTO THE AIR CHAMBER.
    b. SEAL BOTH ENDS OF THE SEAM BY HEATING AND SQUEEZING THEM TOGETHER. INSERT THE NEEDLE WITH THE GAUGE INTO THE AIR CHANNEL. PRESSURIZE THE AIR CHANNEL TO 35 PSI. NOTE TIME TEST STARTS AND WAIT A MINIMUM OF 5 MINUTES TO CHECK. IF PRESSURE AFTER 5 MINUTES HAD DROPPED LESS THAN 2 PSI THE TEST IS SUCCESSFUL (THICKNESS OF MATERIAL MAY CAUSE VARIANCE).
    c. CUT OPPOSITE SEAM END AND LISTEN FOR PRESSURE RELEASE TO VERIFY FULL SEAM HAS BEEN TESTED.
    d. IF THE TEST FAILS, FOLLOW THESE PROCEDURES.
        i. WHILE CHANNEL IS UNDER PRESSURE WALK THE LENGTH OF THE SEAM LISTENING FOR A LEAK.
        ii. WHILE CHANNEL IS UNDER PRESSURE APPLY A SOAPY SOLUTION TO THE SEAM EDGE AND LOOK FOR BUBBLES FORMED BY AIR ESCAPING.
        iii. RE-TEST THE SEAM IN SMALLER INCREMENTS UNTIL THE LEAK IS FOUND.
    e. ONCE LEAK IS FOUND USING ONE OF THE PROCEDURES ABOVE, CUT OUT THE AREA AND RETEST THE PORTIONS OF THE SEAMS BETWEEN THE LEAK AREAS PER 6A AND 6B ABOVE. CONTINUE THIS PROCEDURE UNTIL ALL SECTIONS OF THE SEAM PASS THE PRESSURE TEST.
    f. REPAIR THE LEAK WITH A PATCH AND VACUUM TEST.
13. ALL NON-DESTRUCTIVE TESTS WILL BE NOTED IN THE NON-DESTRUCTIVE LOGS.
14. LINER SHALL BE PROTECTED WITH A 10 OZ. NONWOVEN GEOTEXTILE IF ROCK OR OTHER ANGULAR MATERIALS WITH A DIMENSION GREATER THAN 3/4 INCH ARE PRESENT.

LEGEND

P1 LINER PANEL NUMBER

RUB SHEETS

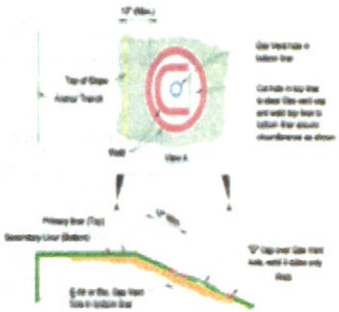


LEAK DETECTION CROSS SECTION WITH SUMP

DETAIL A N.T.S. C-1

NOTES:

1. SUMPS SHALL BE BACKFILLED WITH NON-ANGULAR MAXIMUM 3/8-INCH SIZED PEA GRAVEL.
2. LINER GAS VENTS SHALL BE SPACED ALONG THE INSIDE SLOPE AT APPROXIMATELY 100 FEET ON CENTER OR MINIMUM 2 VENTS PER SIDE.
3. WHEN ANY PIPING EQUIPMENT, INLET, OR OUTLET IS IN DIRECT CONTACT WITH THE LINER, AN APRON CONSISTING OF 60 MIL HDPE MATERIAL SHALL BE INSTALLED BENEATH THE EQUIPMENT OR STRUCTURE TO PROTECT THE PRIMARY LINER SYSTEM.
4. LAY BOTH LINERS IN ANCHOR TRENCH. BACKFILL ANCHOR TRENCH IN 2 LIFTS AND COMPACT PER NOTE 1 ON SHEET C-2.

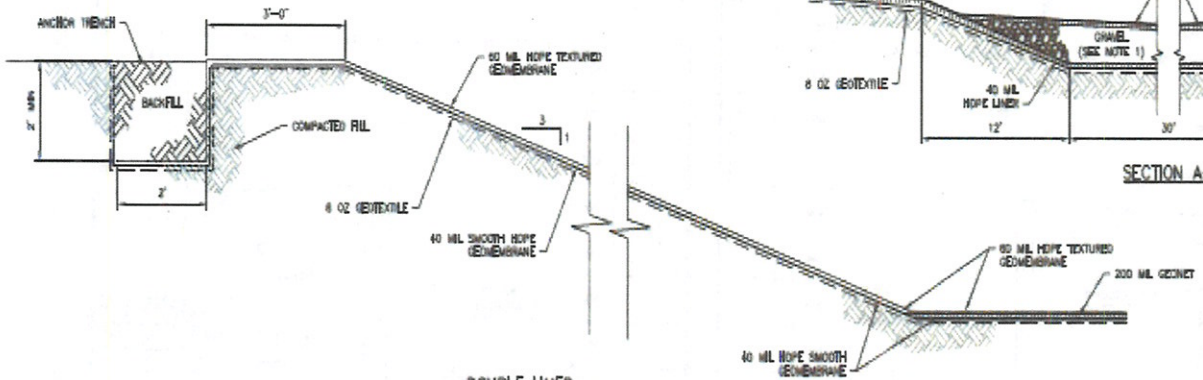


Typical Double Liner Gas Vent

SOURCE: GCE LINING TECHNOLOGY, LLC

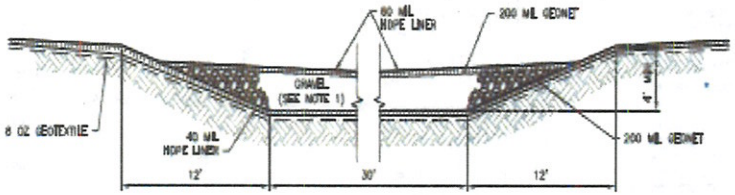
TYPICAL DOUBLE LINER GAS VENT

DETAIL B N.T.S. (SEE NOTE 2)

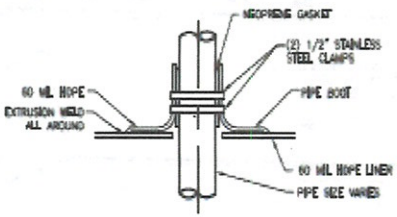


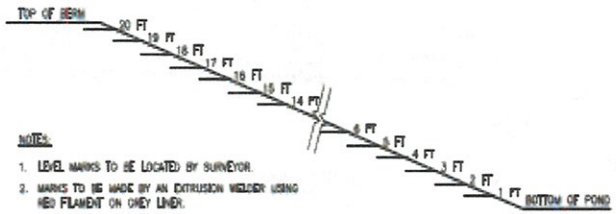
DOUBLE LINER CROSS SECTION

DETAIL C N.T.S. C-1



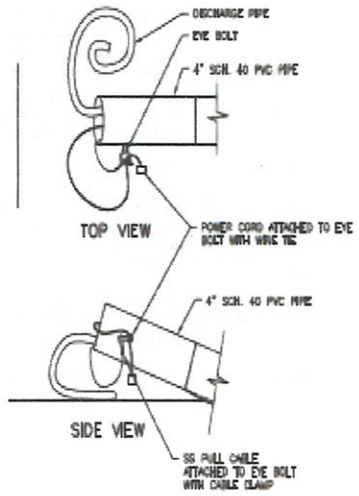
SECTION A-A'





NOTES:

1. LEVEL MARKS TO BE LOCATED BY SURVEYOR.
2. MARKS TO BE MADE BY AN EXTRUSION WELDER USING RED FILAMENT ON ONEY LINER.
3. MARKS SHOULD REFERENCE THE LOWEST POINT ON BERM.
4. FIELD LOCATE PER OWNER



Geotechnical Data Report

Proposed Muy Wayno Pond
Malaga, Eddy County, New Mexico
August 1, 2017
Terracon Project No. A4175181

Prepared for:
CDM Smith
Houston, Texas

Prepared by:
Terracon Consultants, Inc.
Midland, Texas

August 1, 2017

Terracon

CDM Smith
11490 Westheimer Road, Suite 700
Houston, Texas 77077

Attn: Mr. Jason A. Vickery, P.E.
Senior Project Manager
P: 713.252.5488
M: 713.423.7314
E: vickeryja@cdmsmith.com

Re: Geotechnical Data Report
Proposed Muy Wayno Pond
US Highway 285 (US-285) and Duarte Road
Malaga, Eddy County, New Mexico
Terracon Project Number: A4175181

Dear Mr. Vickery:

Terracon Consultants, Inc. (Terracon) has completed the geotechnical engineering services for the above referenced project. This study was performed in general accordance with our proposal PA4175281, dated June 22, 2017 and agreement between Terracon and CDM Smith, dated May 15, 2017. This report presents the findings of subsurface exploration and provides geotechnical engineering data for this project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.
Texas Registration #3272

Jitendra "JT" Thakur, Ph.D., P.E. (Texas)
Geotechnical Department Manager

NEW MEXICO 14477 8-1-17 REGISTERED ENGINEER

J. Dan Cosper, P.E.
Senior Associate

Enclosures
Copies Submitted: Addressee: (1) Electronic

TABLE OF CONTENTS

GEOTECHNICAL DATA REPORT
PROPOSED MUY WAYNO POND
MALAGA, EDDY COUNTY, NEW MEXICO

Terracon Project No. A4175181
August 1, 2017

1.0 INTRODUCTION

Two water impoundments (ponds) will be constructed at the Muy Wayno Site that is located about 16 miles southeast of the intersection of US-285 and Duarte Road near Malaga in Eddy County, NM. Our scope of services included drilling and sampling two (2) borings to depths of approximately 75 feet below existing ground surface (bgs), laboratory testing, field testing, and boring log preparation. The purpose of these services is to provide information and geotechnical data relative to:

- subsurface material conditions
- seismic site classification
- groundwater conditions

2.0 PROJECT INFORMATION

2.1 Project Description

Item	Description
Proposed Construction	Two water impoundments (ponds) with a common berm will be constructed at the project site. The combined storage capacity and bottom width of these impoundments will be about 1.16 MBBL and 350 feet, respectively. The side slope and depth of each impoundment will be 3H:1V and 18 feet without free board (20 feet with freeboard), respectively.

2.2 Site Location and Description

Item	Description
Location	The project site is located about 16 miles southeast of the intersection of US-285 and Duarte Road near Malaga in Eddy County, NM. The GPS coordinates of approximate center of the project site are 32.147612°N, 103.922204°W.
Existing improvements	None
Current ground cover	Exposed soil with shrubs and native grasses

Item	Description
Existing topography	The project site appears to be relatively level; however, the surrounding area slopes gently downwards from the northeast towards the southwest based on a USGS quadrangle map shown on Exhibit A-1 of this report.

Should any of the above information or assumptions be inconsistent with the planned construction, please let us know so that we may make any necessary modifications to this report.

3.0 SUBSURFACE CONDITIONS

3.1 Typical Profile

Conditions encountered at the boring locations are indicated on the boring logs. Stratification boundaries on the boring logs represent the approximate locations of changes in soil types; in-situ, the transition between materials may be gradual. Details for the boring locations can be found on the boring logs in Appendix A of this report. Based on the results of the borings, subsurface conditions at the project site can be generalized as follows:

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Relative Density/ Consistency
Stratum I	4	Silty Sand with Gravel[1]; brown to tan	Dense to Very Dense[2]
Stratum II	8	Silty Sand[1]; tan to gray	Dense to Very Dense[3]
Stratum III	13 to 17	Silty Sand with Gravel[1]; pinkish tan to tan	Very Dense[4]
Stratum IV	23 to 33	Silty Sand, "CALICHE"[1] or Well Graded Sand with Silt and Gravel, "CALICHE"[1]; pinkish tan to tan	Very Dense[5]
Stratum V	75[1]	Poorly Graded Sand with Gravel, "CALICHE"[1] or Silty Sand with Gravel, "CALICHE"[1]; brown to tan	Very Dense[6]

[1]Borings were terminated within this stratum at the planned termination depth of approximately 75 feet bgs.

[2]Dense to very dense soils with standard penetration resistances (N-values) of 33 blows per foot (bpf) to more than 100 bpf were encountered in this stratum.

[3]Dense to very dense soils with standard penetration resistances (N-values) of 37 blows per foot (bpf) to more than 100 bpf were encountered in this stratum.

[4]Very dense soils with N-values of 57 bpf to more than 78 bpf were encountered in this stratum.

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Relative Density/ Consistency

[5]Very dense soils with N-values of 79 bpf to more than 100 bpf were encountered in this stratum.

[6]Very dense soils with N-values of more than 100 bpf were encountered in this stratum.

3.2 Groundwater

The borings were advanced in the dry using hollow steam auger and air rotary drilling techniques that allow short-term groundwater observations to be made while drilling. Groundwater seepage was not observed during or at the completion of drilling.

These groundwater observations provide an indication of the groundwater conditions present at the time the borings were drilled. Groundwater conditions may be different at the time of construction because of seasonal variations in rainfall, runoff, irrigation, and other conditions not apparent at the time of drilling.

4.0 SEISMIC CONSIDERATIONS

Code Used	Site Classification
2012 International Building Code (IBC)[1]	C[2]

[1]In general accordance with the 2012 International Building Code, Section 1613.3.2

[2]The 2012 International Building Code (IBC) requires a site soil profile determination extending a depth of 100 feet for seismic site classification. The current scope requested does not include the required 100 foot soil profile determination. The borings were extended to maximum depths of approximately 75 feet bgs and this seismic site class definition considers that very dense soils are below the maximum depth of the subsurface exploration. Additional exploration to deeper depths would be required to confirm the conditions below the current depth of exploration. Alternatively, a geophysical exploration could be utilized in order to attempt to justify a higher seismic site class.

5.0 GENERAL COMMENTS

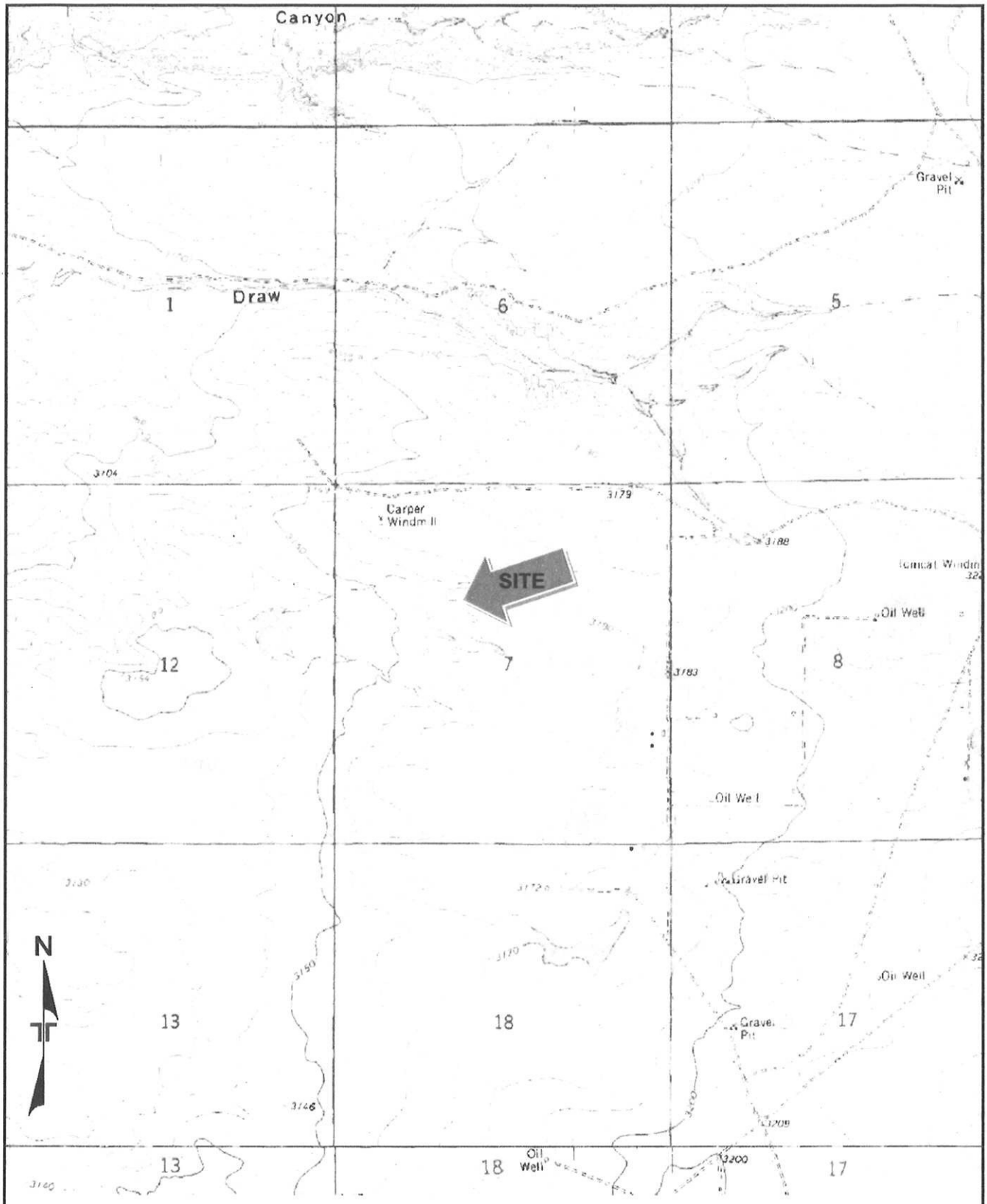
The data presented in this report are based upon the information obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur across the site or due to the modifying effects of weather. The nature and extent of such variations may not become evident until during or after construction. If significant variations become apparent, it will be necessary to reevaluate the suitability of the site conditions for the proposed project.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or

prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the data contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the data of this report in writing.

APPENDIX A
FIELD EXPLORATION



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
QUADRANGLES INCLUDE: PIERCE CANYON, NM (1/1/1968) and ROSS RANCH, NM (1/1/1968).

Project Manager: JT	Project No. A4175181	Terracon	SITE LOCATION PLAN	Exhibit
Drawn by: JT	Scale: 1"=2,000'	10400 State Highway 191 Midland, TX 79707-1497	Muy Wayno Pond SE of US-285 & Duarte Road Malaga, Eddy County, NM	A-1
Checked by: JT	File Name: SLP/EP			
Approved by: JDC	Date: 7/27/2017			

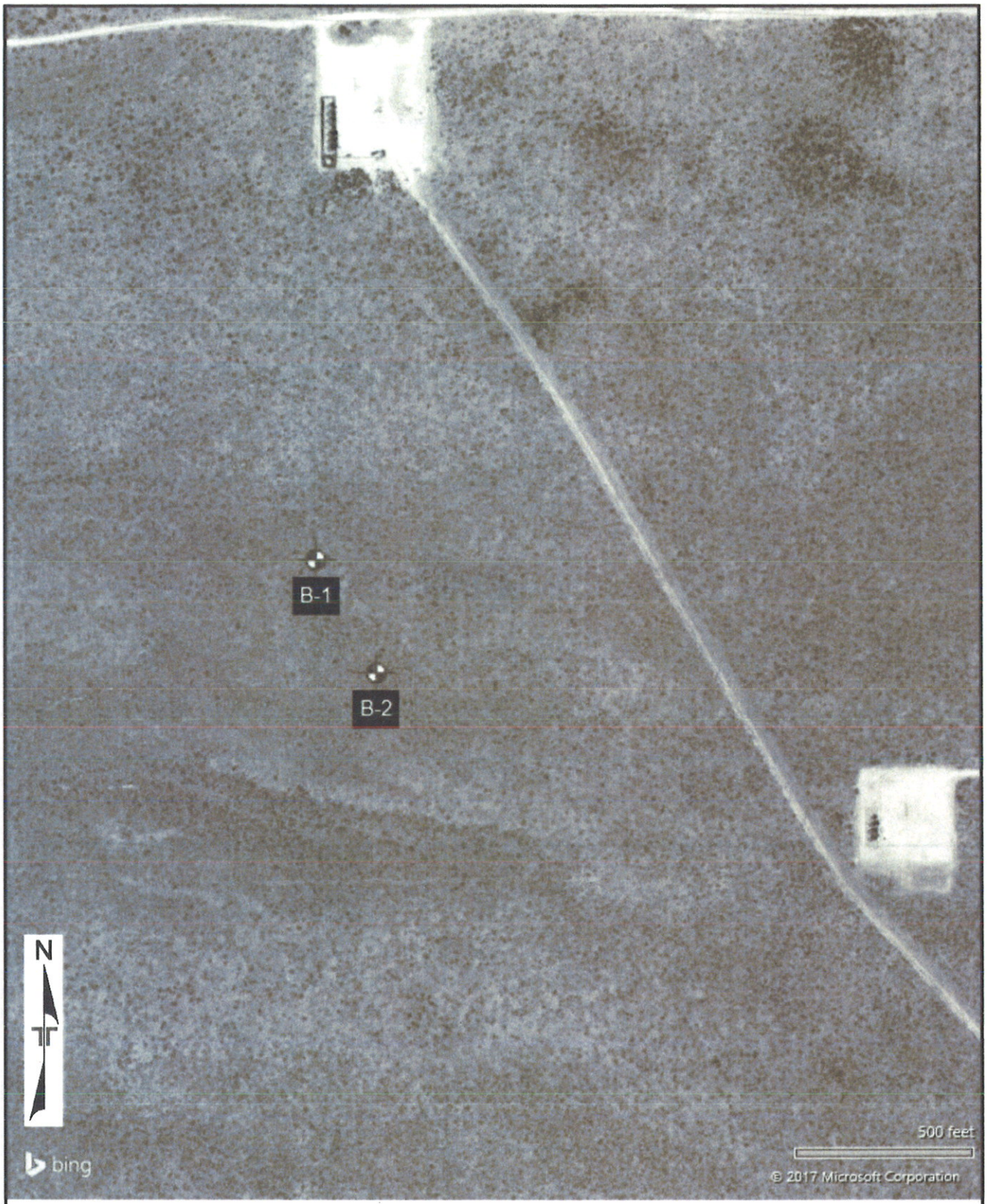


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

Project Manager: JT Drawn by: JT Checked by: JT Approved by: JDC	Project No. A4175181 Scale: AS SHOWN File Name: SLP/EP Date: 7/27/2017	Terracon 10400 State Highway 191 Midland, TX 79707-1497	EXPLORATION PLAN Muy Wayno Pond SE of US-285 & Duarte Road Malaga, NM	Exhibit A-2

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

NOTE: ALL BORING LOCATIONS ARE APPROXIMATE.

Project Mngr:	JT
Drawn By:	CDD
Checked By:	JT
Approved By:	JS

Project No.	A4175181
Scale:	AS SHOWN
Date:	07/24/17

Terracon
Consulting Engineers and Scientists
(Registration No.: F-3272)
10400 STATE HIGHWAY 191 MIDLAND, TX 79707
PH. (432-296-4142) FAX. (432-684-9608)

BORING LOCATION PLAN

PROPOSED MUY WAYNO POND
8S-285 AND DUARTO ROAD
MALAGA, EDDY COUNTY, NEW MEXICO

EXHIBIT
A-3

Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD
Sent: Wednesday, January 31, 2024 10:28 AM
To: kristen.houston@exxonmobil.com
Subject: 2RF-127 - MUY WAYNO RECYCLING FACILITY ID [FAB1807557108]
Attachments: C-147 2RF-127 - Muy Wayno Recycling Facility ID [fAB1807557108] 01.31.2024.pdf

2RF-127 - MUY WAYNO RECYCLING FACILITY ID [FAB1807557108]

Good morning Ms. Houston,
NMOCD has reviewed the annual registration /permit extension request for 2RF-127 - MUY WAYNO RECYCLING FACILITY ID [FAB1807557108] received from [373075] XTO PERMIAN OPERATING LLC on 01/19/2024. The registration/permit annual extension request is approved with the following conditions of approval:

- 2RF-127 - MUY WAYNO RECYCLING FACILITY ID [FAB1807557108] is approved for one (1) year of operation from the date of the previous registration/permit expiration date of March 16, 2024. The new registration/permit expiration date is March 16, 2025.
- [373075] XTO PERMIAN OPERATING LLC will continue to operate, maintain, and close the for 2RF-127 - MUY WAYNO RECYCLING FACILITY ID [FAB1807557108] in compliance with 19.15.34 NMAC, to include but not limited to the performance of weekly inspections regardless of fluid levels in the containment; recording of detailed inspection reports; removal of debris, foreign objects and oil from the containment; and monthly reporting of recycling and reuse of produced water, drilling fluids, and liquid oil field waste via from C-148.
- [373075] XTO PERMIAN OPERATING LLC will maintain a liquid level in the containment that is at least equal to the weight of the liner plus 20%. [373075] XTO PERMIAN OPERATING LLC may maintain a higher liquid level if they choose.
- If less than 20% of the total fluid capacity is utilized every consecutive six months, operation of the facility is considered ceased and a notification of cessation of operations should be sent electronically through OCD Permitting. An extension to extend the cessation of operations, not to exceed six months, may be submitted using a C-147 form through the OCD Online system.
- If after that 6-month extension period, the containment is not utilized at a minimum of 20% fluid capacity, no additional extensions would be granted, and the operator would be directed to remove all fluids and proceed with the closure requirements.
- The recycling containment is bonded pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC. Water reuse and recycling from for 2RF-127 - MUY WAYNO RECYCLING FACILITY ID [FAB1807557108] is limited to wells owned or operated by [373075] XTO PERMIAN OPERATING LLC.
- A minimum of 3-feet freeboard must be maintained in the recycling containment at all times.
- [373075] XTO PERMIAN OPERATING LLC will comply with 19.15.29 NMAC Releases in the event of any release of produced water or produced water or other oil field wastes at for 2RF-127 - MUY WAYNO RECYCLING FACILITY ID [FAB1807557108]. [373075] XTO PERMIAN OPERATING LLC will comply with all other OCD rules.
- [373075] XTO PERMIAN OPERATING LLC must perform weekly inspections of the containment and leak detection system.
- If [373075] XTO PERMIAN OPERATING LLC wishes to extend the registration/permit past the March 16, 2025, a registration/permit extension request must be submitted to OCD. Extension requests are reviewed on a case-by-case basis and evaluated on their merits. Extensions are considered for a maximum length of one year. Additional requests must be submitted to OCD through OCD Online on a Form C-147 (long form) as an Extension request and should include a formal extension request letter, a summary of the prior registration/permit period inspection reports, and the copies of the detailed inspection records for the prior permit period. The extension request should be submitted no later than February 16, 2025.

Please let me know if you have any additional questions.
Regards,

Victoria Venegas ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. Artesia, NM 88210
(575) 909-0269 | Victoria.Venegas@emnrd.nm.gov
https://www.emnrd.nm.gov/ocd/

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 305395

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 305395
	Action Type: [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	• 2RF-127 - MUY WAYNO RECYCLING FACILITY ID [FAB1807557108] is approved for one (1) year of operation from the date of the previous registration/permit expiration date of March 16, 2024. The new registration/permit expiration date is March 16, 2025. • If [373075] XTO PERMIAN OPERATING LLC wishes to extend the registration/permit past the March 16, 2025, a registration/permit extension request must be submitted to OCD no later than February 16, 2025.	1/31/2024