XTO Permian Operating, LLC
An ExxonMobil Subsidiary

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

May 21, 2025

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

Re: Administrative Order 2RF-155
Shanghai Recycling Facility Containment Upgrade
Facility ID (fvv2103456039)

Victoria,

XTO Permian Operating, LLC (OGRID: 373075) respectfully requests permission to perform upgrades to the Shanghai Recycling Facility Containment (frac pond) Permit 2RF-155 Recycling Facility ID (fvv2103456039).

The first scope of the work to be done on the Shanghai frac pond is as follows: installation of mechanical and electrical infrastructure (i.e., electric submersible pumps, transformers, switchboards, etc.) to support upcoming developments and eliminate the use of temporary diesel pumps. The following equipment will be added as part of the upgrade:

Quantity	Description	Temporary	Permanent
2	2.6MVA Transformer		X
2	3000A Switchboard		X
1	Programmable Logic Controller (PLC)		X
1	Remote I/O Panel		X
4	1200A Generator Tap Boxes		X

During full operation when modular electric submersible pumps are installed on site, the following additional equipment will be installed:

Quantity (up to)	Description	Temporary	Permanent
12	~250HP Electric Submersible Pump	X	
12	~300HP Variable Frequency Drive (VFD)	X	
4	1200A or 2000A Switchboards	X	

The second scope of work to be done on the Shanghai frac pond is as follows: installation of mechanical and electrical infrastructure (i.e., automated leak detection and enhanced

pond level measurement) to support operations and eliminate the use of manual leak detection routines.

Quantity	Description	Temporary	Permanent
2	Enhanced Pond Level Sensors		X
2	Automated Leak Detection Systems		X

Construction duration will be 1-Jun-2025–30-Sep-2025 upon your approval, if all goes according to plan. The pond will continue to operate during the construction duration with minimal downtime for installation of pumping infrastructure.

A preliminary, updated engineered drawing of the frac pond layout can be viewed in drawing "*DN-CCSFP-FP-PF-MP-LAY-0001-001_0.pdf*" (attached).

A process flow diagram can be viewed in "*Delaware Frac Pond Process Flow.pdf*" (attached).

The outlined changes will change the Operations and Maintenance Plan (Appendix B from ExxonMobil's original C-147 submission) as shown in Appendix A, below.

The outlined changes will not affect the Closure Plan.

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-147
Revised April 3, 2017

Recycling Facility and/or Recycling Containment

Type of Facility: ☒ Recycling Facility ☒ Recycling Containment*

Type of action: ☒ Permit ☒ Registration
☒ Modification ☐ 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 Road, Bldg 5, Midland, TX 79707_____
Facility or well name (include API# if associated with a well): _Shanghai_____
OCD Permit Number: _____(For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr _____ Section __22_____ Township _25 South_ Range _29 East__ County: _Eddy County_____
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Recycling Facility:**
Location of recycling facility (if applicable): Latitude _ 32.118675°_____ Longitude __-103.974825°_____ NAD83
Proposed Use: ☒ Drilling* ☒ Completion* ☒ Production* ☒ 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.***
☒ Fluid Storage
☐ Above ground tanks ☒ 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.
☒ **Recycling Containment:**
☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)
Center of Recycling Containment (if applicable): Latitude _32.117775°_____ Longitude __-103.974687_____ NAD83
☐ For multiple or additional recycling containments, attach design and location information of each containment
☒ Lined ☒ Liner type: Thickness ____60___mil ☐ LLDPE ☒ HDPE ☐ PVC ☒ Other __40 mil HDPE (secondary liner)__
☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☒ Other __Field_____ Volume: _1,000,000_bbl each Dimensions: L_1500 ft x W_1200 ft x D_16 ft__
☐ 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_Eight (8) feet high game fence with three (3) strands of barbed wire on top_____

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 Advisor

Signature: Kristen Houston Date: 6/12/2025

e-mail address: Kristen.houston@exxonmobil.com Telephone: (432)894-1588

11.
OCD Representative Signature: Victoria Venegas **Approval Date:** 07/01/2025

Title: Environmental Specialist **OCD Permit Number:** 2RF-155

- [x] OCD Conditions
- [x] Additional OCD Conditions on Attachment

Appendix A

Original submission:

Appendix B
Operating and Maintenance Plan

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.

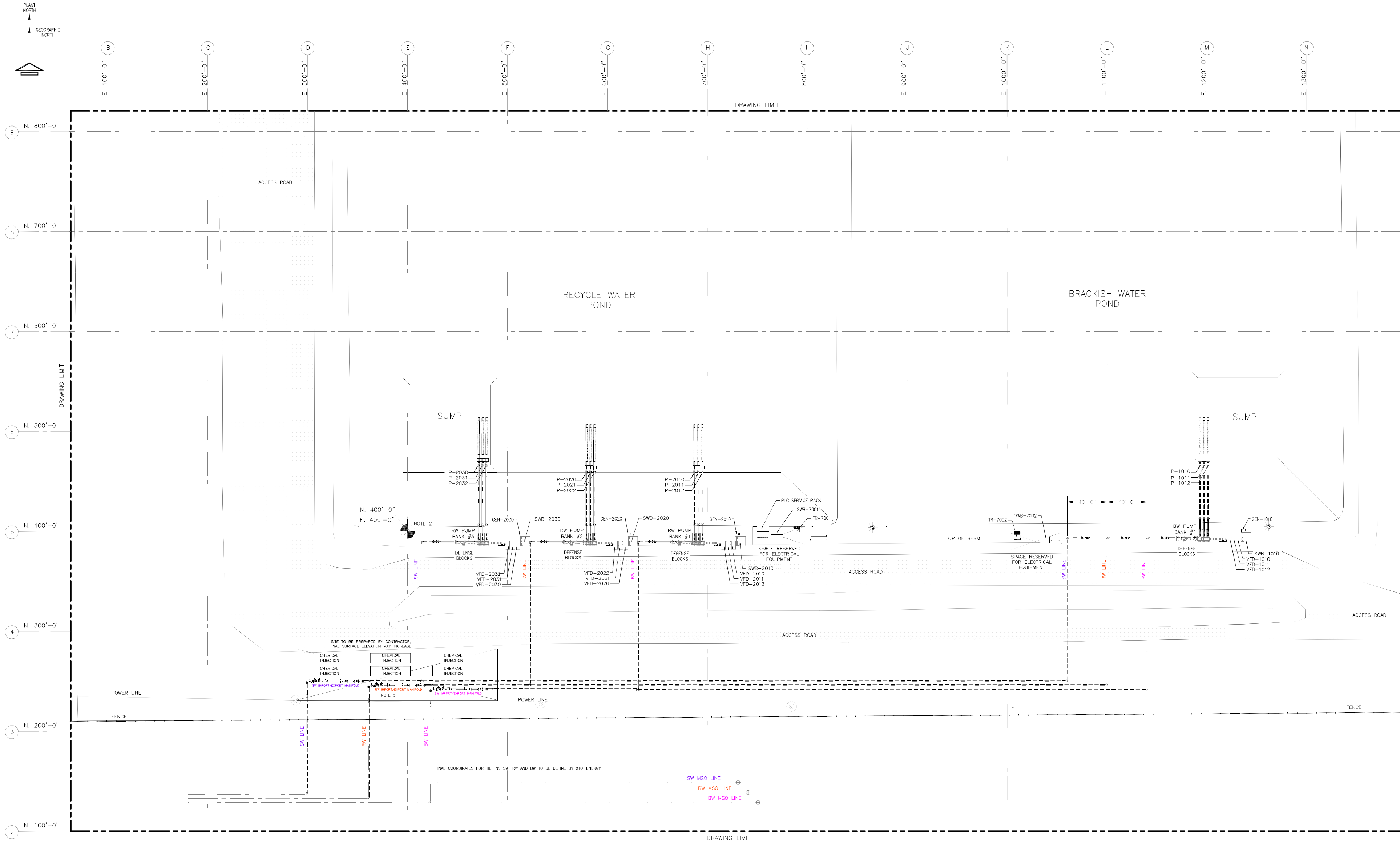
The recycling containment and associated leak detection system will be inspected at least weekly by XTO field operations personnel while it contains any fluid and the results of the inspection will be documented on an inspection checklist. The completed checklists will be retained and made available for review upon request. [*Continued*].

Revised submission (updates in red underline):

Appendix B
Operating and Maintenance Plan

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 automated leak detection will be run as needed when fluids are detected in between the primary (upper) and secondary (lower) liners. The completed checklists and data will be retained and made available for review upon request. [*Continued*].



OVERALL SITE LAYOUT
SHANGHAI FRAC POND UPGRADE
SC: 1/32" = 1'-0"

LEGEND
- NEW
- UNDERGROUND LINES
- MODULAR EQUIPMENT
- EXISTING FENCE
- ACCESS ROAD
- EXISTING TIE-INS
- EXISTING LIGHT POLE
- OHE POLE
- REFERENCE POINT

5-8-2025

TIMOTHY ANGELL NEW MEXICO 25842 PROFESSIONAL ENGINEER

SCALE 1':1/32"

0' 10' 50' 100' 150'

NOTES:
1. ALL MEASUREMENTS ARE IN FEET & INCHES UNLESS OTHERWISE INDICATED.
2. REFERENCE PROJECT PLANT COORDINATES N.400'-0", E.400'-0", EL 3080.2650' IS LOCATED AT NORTH CORNER OF THE RECYCLE WATER CONTAINMENT AND CORRESPONDS TO THE COORDINATES N=652023.3240' Y=406362.9760' Z=3080.2650' FROM AS BUILT SURVEY SHANGHAI FRAC POND 1_6_24 POINT JAP125568/EDGE OF POND LIGHT POLE.
3. REFERENCE PROJECT ELEVATION IS EL. 3080.2650' AND CORRESPOND TO THE GROUND LEVEL, CONTRACTOR TO CONFIRM AND ADJUST ELEVATIONS AT SITE.
4. CONTROL/ DISCHARGE MANIFOLD SKIDS WILL BE SETTLED AT EXISTING GROUND ELEVATION AND LEVELING BY CONTRACTOR AT FIELD.
5. HIGH AND LOW GROUND LEVEL ELEVATIONS TO BE CONFIRMED AT FIELD BEFORE ANY INSTALLATION

REFERENCE DRAWINGS:
1. DN-CCSFP-FP-PF-PX-PID-0001-001 TO 0005-001 P&ID RW/BW/SW-MSO IMPORT/EXPORT MANIFOLD.
2. GSS00875 SUBMERSIBLE PUMPS
3. DN-CCSFP-FP-PF-MP-KEY-0001-001 OVERALL SITE LAYOUT – KEY PLAN
4. DN-CCSFP-FP-PF-EA-LAY-0001-001 OVERALL ELECTRICAL PLOT PLAN

REV.	DATE	DESCRIPTION	APP'D.

REVISIONS

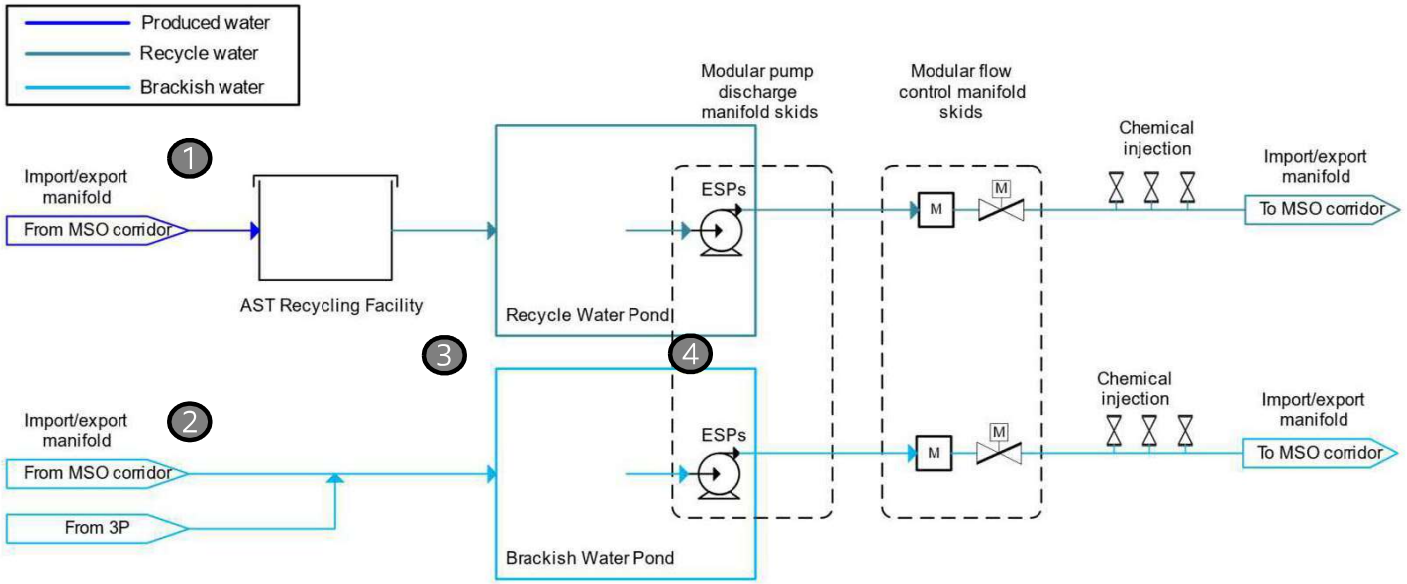
XTO ENERGY

DRAWN BY:
CHECKED BY:
APPROVAL:
CLIENT APPROVAL:
DATE:
SCALE:

Petrofac

CLIENT:
JOB:
DWG:

Delaware Frac Pond Process Flow (1 of 2)



1. Produced water arrives at the facility from the MSO corridor. Produced water is routed to the AST recycling facility. At the AST facility, produced water is treated through flocculation to become recycle water used for frac.
2. Brackish water enters the facility through the import/export manifold connected to the MSO corridor. Brackish water can also be supplemented from 3P transfers.
3. Recycle water and brackish water streams are routed to their respective pits.
4. Electric submersible pumps remove water from each pond and send flow through the modular discharge skids. VFDs drive the ESPs to ensure pump speeds meet needed flow requirements. The pumps and manifold skids can be disconnected and moved from pond to pond to meet frac needs.

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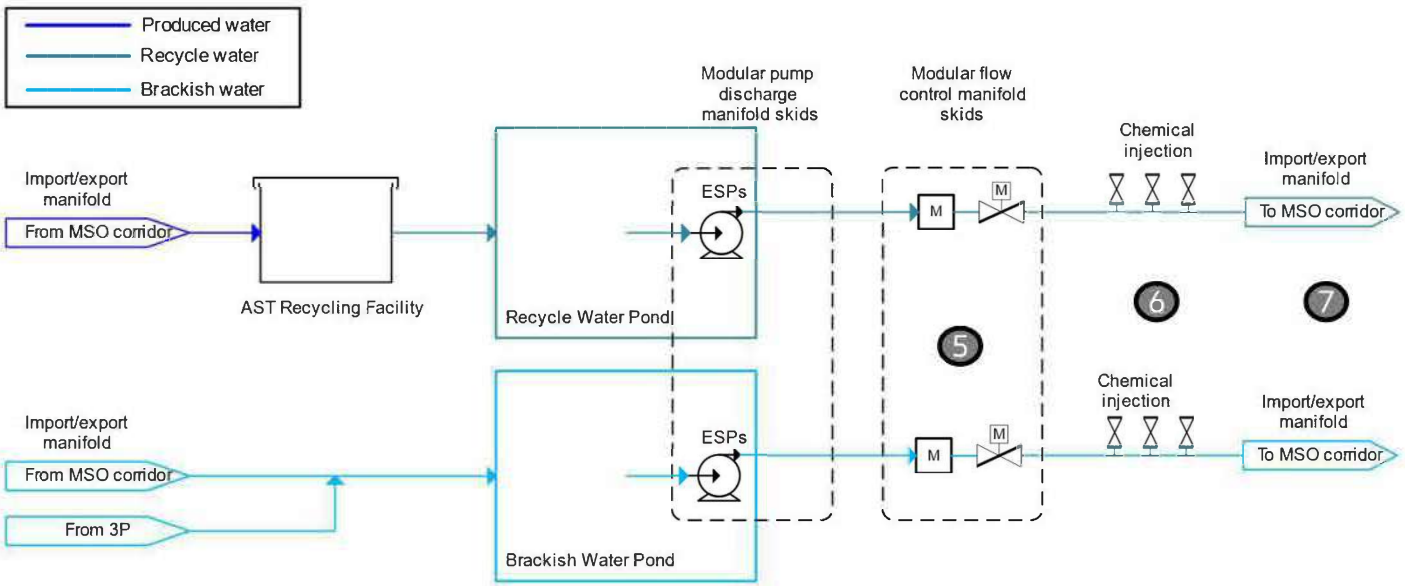
Delaware Frac Pond Process Flow (2 of 2)



5 Recycle and brackish water streams continue flow separately through the modular flow control skids. The skids include flow meters to measure pump flow rates, flow control valves to support startup and operations at low flow rates, and pressure transmitters.

6 Water streams flow through the chemical injection points where a 3rd party injects chemicals for frac support.

7 At the import/export manifolds, water flows from the facility into the MSO corridor. The streams can be sent separately or blended. Manifolds include flow meters and SDV's to isolate the facility from the corridor. Flow can also be reversed at the manifold to bring water from the corridor into the facility.

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Appendix B
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 three (3) 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.

Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD
Sent: Tuesday, July 1, 2025 2:40 PM
To: Houston, Kristen /C
Subject: 2RF-155 SHANGHAI FACILITY [fVV2103456039]
Attachments: 2RF-155 SHANGHAI FACILITY [fVV2103456039] 07.01.2025.pdf

2RF-155 SHANGHAI FACILITY [fVV2103456039]

Good afternoon Ms. Houston.
The NMOCD has reviewed the proposed recycling facility updates submitted by [373075] XTO PERMIAN OPERATING LLC on 06/13/2025, for 2RF-155 Shanghai FACILITY [fVV2103456039], Action ID **473916**.
The proposed upgrade to be performed on 2RF-155 SHANGHAI FACILITY [fVV2103456039] is as follows:

- Installation of mechanical and electrical infrastructure (i.e., electric submersible pumps, transformers, switchboards, etc.) to support upcoming developments and eliminate the use of temporary diesel pumps. The detailed list of equipment that will be added as part of the upgrade can be found on the application.

The proposed recycling facility updates have been approved with the following conditions of approval:

- 2RF-155 SHANGHAI FACILITY [fVV2103456039] registration expired on May 22, 2024. Please submit the extension request for the 2024-2025 period.
- Water reuse and recycling from 2RF-155 SHANGHAI FACILITY [fVV2103456039] is limited to wells owned and operated by [373075] XTO PERMIAN OPERATING LLC.
- [373075] XTO PERMIAN OPERATING LLC will, operate, maintain, and close 2RF-155 SHANGHAI FACILITY [fVV2103456039] in compliance with 19.15.34 NMAC.
- [373075] XTO PERMIAN OPERATING LLC shall submit monthly reports of recycling and reuse of produced water, drilling fluids, and liquid oil field waste on NMOCD form C-148 through OD Permitting even if there is zero activity.
- [373075] XTO PERMIAN OPERATING LLC must comply with 19.15.29 NMAC Releases in the event of any release of produced water or other oil field wastes at 2RF-155 SHANGHAI FACILITY [fVV2103456039].

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

Victoria Venegas ● Environmental Specialist Advanced
EMNRD - Oil Conservation Division
506 W. Texas Ave. Artesia, NM 88210
575.909.0269 | **Victoria.Venegas@emnrd.nm.gov**

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 473916
	Action Type: [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	The proposed upgrade to be performed on 2RF-155 SHANGHAI FACILITY [fVV2103456039] is as follows: • Installation of mechanical and electrical infrastructure (i.e., electric submersible pumps, transformers, switchboards, etc.) to support upcoming developments and eliminate the use of temporary diesel pumps. The detailed list of equipment that will be added as part of the upgrade can be found on the application. The proposed recycling facility upgrades have been approved.	7/1/2025