

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 Drive
Santa Fe, NM 87505

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☒ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
Existing BGT ☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
BGT1 ☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please 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: <u>XTO Energy, Inc.</u> OGRID #: <u>5380</u>	
Address: <u>#382 County Road 3100, Aztec, NM 87410</u>	
Facility or well name: <u>Valencia Canyon Unit #9</u>	
API Number: <u>3003921488</u> OCD Permit Number: _____	
U/L or Qtr/Qtr <u>P</u> Section <u>15</u> Township <u>28N</u> Range <u>4W</u> County: <u>Rio Arriba</u>	
Center of Proposed Design: Latitude <u>36.657330</u> Longitude <u>107.232720</u> NAD: <input type="checkbox"/> 1927 <input type="checkbox"/> 1983	
Surface Owner: <input checked="" type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Tribal Trust or Indian Allotment	
2.	
<input type="checkbox"/> Pit: Subsection F or G of 19.15.17.11 NMAC	
Temporary: <input type="checkbox"/> Drilling <input type="checkbox"/> Workover	
<input type="checkbox"/> Permanent <input type="checkbox"/> Emergency <input type="checkbox"/> Cavitation <input type="checkbox"/> P&A	
<input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	
<input type="checkbox"/> String-Reinforced	
Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____	
3.	
<input type="checkbox"/> Closed-loop System: Subsection H of 19.15.17.11 NMAC	
Type of Operation: <input type="checkbox"/> P&A <input type="checkbox"/> Drilling a new well <input type="checkbox"/> Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)	
<input type="checkbox"/> Drying Pad <input type="checkbox"/> Above Ground Steel Tanks <input type="checkbox"/> Haul-off Bins <input type="checkbox"/> Other _____	
<input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	
Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____	
4.	
<input checked="" type="checkbox"/> Below-grade tank: Subsection I of 19.15.17.11 NMAC	
Volume: <u>120</u> bbl Type of fluid: <u>Produced Water</u>	
Tank Construction material: <u>Steel</u>	
<input type="checkbox"/> Secondary containment with leak detection <input type="checkbox"/> Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	
<input type="checkbox"/> Visible sidewalls and liner <input type="checkbox"/> Visible sidewalls only <input checked="" type="checkbox"/> Other <u>Visible sidewalls, vaulted, automatic high-level shut off, no liner</u>	
Liner type: Thickness _____ mil <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	
5.	
<input type="checkbox"/> Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	

6.

Fencing: Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☒ Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing

7.

Netting: Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☐ Screen ☐ Netting ☒ Other Expanded metal or solid vaulted top
- ☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☒ Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

- ☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	
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).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Topographic map; Visual inspection (certification) of the proposed site	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i>)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to permanent pits</i>)	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input checked="" type="checkbox"/> NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	
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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Written confirmation or verification from the municipality; Written approval obtained from the municipality	
Within 500 feet of a wetland.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	
Within the area overlying a subsurface mine.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	
Within an unstable area.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	
Within a 100-year floodplain.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- FEMA map	

11.

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.

Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Climatological Factors Assessment
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Quality Control/Quality Assurance Construction and Installation Plan
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
☐ Emergency Response Plan
☐ Oil Field Waste Stream Characterization
☐ Monitoring and Inspection Plan
☐ Erosion Control Plan
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

Proposed Closure: 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Closed-loop System
☐ Alternative
 Proposed Closure Method: ☒ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)**Instructions:** Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?☐ Yes (If yes, please provide the information below) ☐ No*Required for impacted areas which will not be used for future service and operations:*☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No
☐ NA

Ground water is between 50 and 100 feet below the bottom of the buried waste

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No
☐ NA

Ground water is more than 100 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No
☐ NA

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 300 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 private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

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

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral 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

18.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Kim Champlin Title: Environmental Representative

Signature: Kim Champlin Date: 11/12/2008

e-mail address: kim_champlin@xtoenergy.com Telephone: (505) 333-3100

20.

OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: Jaclyn Burdine Approval Date: 08/08/2022

Title: Environmental Specialist-A OCD Permit Number: BGT1

21.

Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ Closure Completion Date: _____

22.

Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23.

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

- ☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.

Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____ Longitude _____ NAD: ☐ 1927 ☐ 1983

25.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

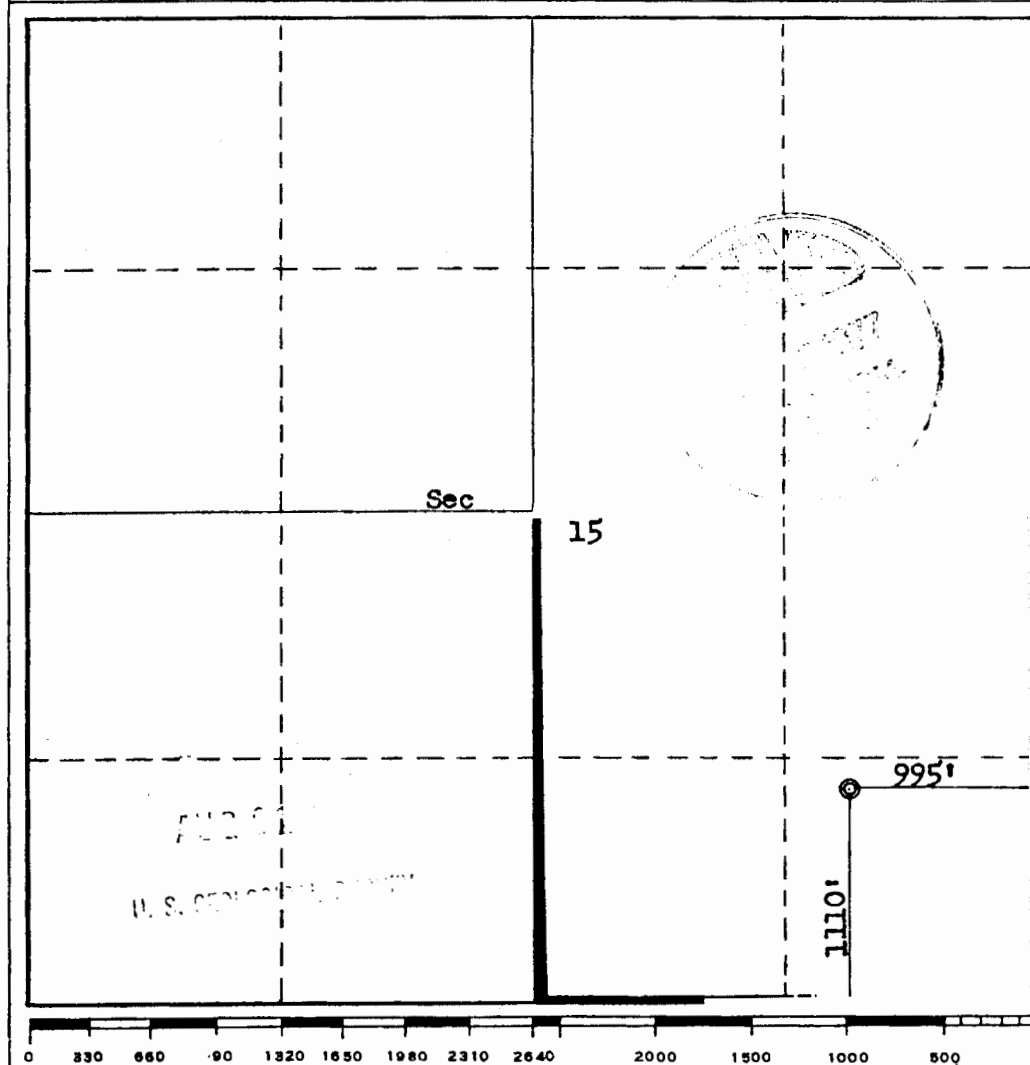
Operator Amoco Production Company			Lease Valencia Canyon Unit		Well No. 9
Unit Letter P	Section 15	Township 28N	Range 4W	County Rio Arriba	
Actual Footage Location of Well: 1110 feet from the South line and 995 feet from the East line					
Ground Level Elev. 7320	Producing Formation Pictured Cliffs		Pool Choza Mesa Pictured Cliffs	Dedicated Acreage 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
J. L. KRUPKA
Position
AREA ENGINEER
Company
AMOCO PRODUCTION COMPANY
Date
JULY 14, 1977

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
June 17, 1977
Registered Professional Engineer and/or Land Surveyor
Fred B. Keefe, Jr.
Certificate No.
3950



Lodestar Services, Inc.
PO Box 4465, Durango, CO 81302

Pit Permit Siting Criteria Information Sheet

API#: 30-039-21488

Name: VALENCIA CANYON UNIT No. 009

Depth to groundwater: depth < 50'

Distance to closest continuously flowing watercourse: 20 miles NW to 'San Juan River' at Navajo Reservoir

Distance to closest significant watercourse, lakebed, playa lake, or sinkhole: 3.8 miles N to 'La Jara Canyon'; 4.9 miles SE to 'Cereza Canyon'

Permanent residence, school, hospital, institution or church within 300' NO

Domestic fresh water well or spring within 500' NO

Any other fresh water well or spring within 1000' NO; 2790' SSW to 'Horse Spring', 4000' NE to 'Smith Spring'(SP03811); ~4800' SW to 'Mud Spring'(SP03620)

Within incorporated municipal boundaries NO

Within defined municipal fresh water well field NO

Wetland within 500' NO

Within unstable area NO

Within 100 year flood plain NO

Client: XTO Energy
Project: tank permitting
Revised: 19-Oct-08
Prepared by: Trevor Ycas

USPLSS: 28N 04W 15 P

Lat/Long: 36.657330°, -107.232720°

Geologic formation: San Jose Formation (Tsj), alluvium

Site Elevation: groundwater depth estimation is based primarily on elevation of nearby springs
2237m/7339'

Soil Type: Rockland/ Aridisols

Annual Precipitation: Navajo Dam: 12.95", Gobernador: 11.98", Capulin Rgr Stn.: 14.98", Otis: 10.41"

Precipitation Notes: Historical daily max. precip.: 4.19" (Bloomfield)

Attached Documents: 27N03W_iWaters.pdf, 27N04W_iWaters.pdf, 27N05W_iWaters.pdf, 28N03W_iWaters.pdf, 28N04W_iwaters.pdf, 28N05W_iwaters.pdf, 29N03W_iWaters.pdf, 29N04W_iWaters.pdf, 29N05W_iWaters.pdf

FM350049IND0_30-039-21488.jpg 30-039-21488_gEarth-PLS.jpg, 30-039-21488_topo-PLS.jpg, 30-039-21488_gEarth-iWaters.jpg

Mining Activity: None Near
NM_NRD-MMD_MinesMillQuarries_30-039-21488.jpg

Additional Notes:

drains to La Jara Creek /Canyon via Dry Lake Canyon

iWaters data: springs SP03811, SP03620 both supply livestock water

located on 'Vigas Mesa', above 'Horse Canyon', S of 'Dry Lake Canyon', NW of 'Valencia Canyon'

Valencia Canyon Unit #9 Below Grade Tank Hydrogeologic Report for Siting Criteria

General Geology and Hydrology

The San Juan Basin is a typical Rocky Mountain basin with a gently dipping southern flank and a steeply dipping northern flank. Asymmetrically layered Tertiary sandstones and shales, along with Quaternary alluvial deposits, dominate surficial geology (Dane and Bachman, 1965). The proposed pit location will be located in the southern La Jara Canyon region of the San Juan Basin near the uppermost reaches of Valencia Canyon and atop Vigas Mesa. The predominant geologic formation is the San Jose Formation of Tertiary age, which underlies surface soils and is often exposed (Dane and Bachman, 1965). Deposits of Quaternary alluvial and aeolian sands occur prominently near the surface of the area, especially near streams and washes.

Cretaceous and Tertiary sandstones, as well as Quaternary alluvial deposits serve as the primary aquifers in the San Juan basin (Stone et al., 1983). In most of the proposed area, the San Jose Formation lies at the surface and overlies the Nacimiento Formation. Thickness of the San Jose ranges from 200 to 2700 feet, thickening from west to east across the region of interest (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the San Jose Formation are between 0 and 2700' deep in this section of the basin (Stone et al., 1983). Groundwater within these aquifers flows north, toward the San Juan River. Little specific hydrogeologic data is available for the San Jose Formation system, but "numerous wells and springs used for stock and domestic supplies" draw their water from the San Jose Formation (Stone et al, 1983).

The prominent soil type at the proposed site are entisols and aridisols, which are defined as soils exhibiting little to no profile development (www.emnrd.state.nm.us). Soils are basically unaltered from their parent rock. Miles of arroyos, washes and intermittent streams exist as part of the drainage network towards the San Juan River. These features often cut into soil and other unconsolidated materials, contributing to sedimentation downstream. The sudden influx of water from storm events easily erodes the soils that cover the area and prohibits effective recharge to the underlying aquifers.

Regional weather further prohibit active recharge. The climate is arid, averaging just over 12 inches of rainfall annually. As is typical of the southwestern United States monsoonal weather patterns, most precipitation falls from August through October. The heaviest rainfall occurs in the summer in isolated, intense cloudbursts. November through June is relatively dry. Snow generally falls from December to mid-February and averages less than one-half inch in depth. However, most recharge occurs during the winter months during snowmelt periods from the upper elevations (Western Regional Climate Center www.wrcc.dri.edu).

The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

Site Specific Hydrogeology

Depth to groundwater is estimated to be less than 50 feet. This estimation is based on data from Stone and others (1983), the USGS Groundwater Atlas of the United States and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography, proximity to adjacent channels & spring features at similar elevations nearby are also taken into consideration.

Beds of water-yielding sandstone are present in the San Jose Formation, which are fluvial in origin and are interbedded with mudstone, siltstone & shale. "Extensive intertonguing" of different members of this formation is reported. (Stone et al, 1983). Porous sandstones form the principal aquifers, while relatively impermeable shales and mudstones form confining units between the aquifers (Stone et al., 1983). Local aquifers exist within the San Jose Formation at depths greater than 100 feet and thicknesses of the aquifer can be up to several hundred feet (USGS, Groundwater Atlas of the US) (Stone et al, 1983).

The site in question is located on relatively flat ground on top of Vigas Mesa, between Valencia and Dry Lake Canyons at an elevation of approximately 7340 feet and approximately 3.8 miles south-southwest of the main La Jara Canyon wash channel, the nearest significant watercourse. This site drains to La Jara Canyon via Dry Lake Canyon. This region is deeply incised by canyons, washes, gullies and arroyos, with large, flat-topped mesas the predominant topographic feature. The mesas are composed of cliff-forming sandstone, and systems of dry washes and their tributaries composed of alluvium are evident on the attached aerial image. Groundwater is expected to be shallow within Largo and Blanco Canyons and within major tributary systems.

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. Groundwater data is extremely limited in this region; the nearest iWaters data point lies 4000 feet northeast (SP 03811); this spring is used for livestock watering, as are many others in the surrounding area. Additionally, there is a spring located approx. 3000 ' south-southwest on the USGS topographic maps (Horse Spring). Wells located at similar elevations nearby contain groundwater at depths of 85 feet and deeper, occasionally in excess of 300 feet. However, there exist numerous surface springs in the section 28N,04W. The exact topography and elevation relative to the nearest surface spring feature (approx. 5' higher) suggests that groundwater is likely present at depths less than 50 feet. A map showing the location of wells in reference to the proposed pit location is attached.





New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☒ Domestic ☒ All

WATER COLUMN REPORT 08/12/2008

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
SJ 00037	29N	04W	04	2						373		

Record Count: 1

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 29N Range: 03W Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

POD / Surface Data Report Avg Depth to Water Report Water Column Report

Clear Form IWATERS Menu Help

WATER COLUMN REPORT 08/12/2008

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	Zone	X	Y	Depth Well	Water Column	Water (in feet)
SJ 01575	29N	03W	08	4	4	2			306		

Record Count: 1

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) ☐ Non-Domestic ☒ Domestic ☐ All

POD / SURFACE DATA REPORT 10/11/2008

DOB File Mbr	Use	Diversion	Owner	POD Number	Source	Tra	Ang	Sec	Q	Q	X	Y	UTM Zone	Easting	Northing	Start Date	Finish Date	Depth Well
SD 07850	PDL	3	ROSA B. MARTINEZ	SD 07850		28N	05W	18	2	3	4		13	285663	4060122			
SD 07851	PDL	3	ROSA B. MARTINEZ	SD 07851		28N	05W	18	1	2	1		13	285228	4060731			
SD 07852	PDL	3	ROSA B. MARTINEZ	SD 07852		28N	05W	18	2	1	1		13	285579	4060759			
SJ 00036	IND	65	BURLINGTON RESOURCES OIL & GAS	SJ 00036	Shallow	28N	05W	28	3				13	288156	4056298	06/27/1953	06/27/1953	303
SJ 00047	NOT	0	MAMIE MANGUM	SJ 00047	Shallow	28N	05W	28					13	288558	4056700	07/30/1953	08/04/1953	465
SJ 01893	STK	3	ROSA B. OR JUAN L. MARTINEZ	SJ 01893	Shallow	28N	05W	18	4				13	285827	4059576	09/14/1984	10/12/1984	390
SJ 03806	STK	3	ROSA B. MARTINEZ	SJ 03806		28N	05W	07	4	2		130509	2065482	13	286111	4061033		

Record Count: 7

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 28N Range: 04W Sections: 13
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) Non-Domestic Domestic All

POD / Surface Data Report Avg Depth to Water Report Water Column Report
Clear Form WATERS Menu Help

POD / SURFACE DATA REPORT 10/19/2008

DB File Nbr		Use	Diversion	Owner	POD Number	(quarters are biggest to smallest)										X Y are in Feet		UTM are in Meters		Start Date	Finish Date	Depth Well								
		(acre ft per annum)				Source	Twp	Rng	Sec	q	q	q	q	q	q	Zone	X	Y	UTM Zone	Easting	Northing									
SJ 00045		IND		0 U.S. GOVERNMENT	SJ 00045	Shallow	28N	04W	07	1	1								13	295235	4061453	09/04/1952	09/10/1952	600						
SJ 02385		STK		3 CARSON NATIONAL FOREST	SJ 02385	Shallow	28N	04W	26	1	1								13	300818	4057064			160						
SP 03618		STK		1.88 UNITED STATES OF AMERICA	SP 03618		28N	04W	09	3	1								13	297832	4061209									
SP 03619		STK		0.36 UNITED STATES OF AMERICA	SP 03619		28N	04W	21	4	4								13	298924	4057416									
SP 03620		STK		0.36 UNITED STATES OF AMERICA	SP 03620		28N	04W	22	1	4								13	299736	4058240									
SP 03621		STK		0.58 UNITED STATES OF AMERICA	SP 03621		28N	04W	29	2	2								13	297324	4057019									
SP 03622		STK		0.36 UNITED STATES OF AMERICA	SP 03622		28N	04W	33	2	4								13	298821	4054927									
SP 03808		STK		1.67 CARSON NATIONAL FOREST	SP 03808		28N	04W	17	3	1								13	296199	4059551									
SP 03809		STK		1.67 CARSON NATIONAL FOREST	SP 03809		28N	04W	17	4	4								13	297378	4059116									
SP 03811		STK		1.67 CARSON NATIONAL FOREST	SP 03811		28N	04W	14	1	1								13	300944	4060310									
SP 03972		STK		0 CARSON NATIONAL FOREST	SP 03972		28N	04W	36	3	3								13	302344	4053996									
SP 04028		STK		0.85 CARSON NATIONAL FOREST	SP 04028		28N	04W	32	2	4								13	297271	4054953									

Record Count: 12

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

POD / SURFACE DATA REPORT 10/19/2008

DB File Nbr (acre ft per annum)
Use Diversion Omar
No Records found, try again

(quarters are 1-9W 2-9E 3-9W 4-9E)
(quarters are biggest to smallest)
Source Tws Rng Sec q q q Zone X Y are in Feet X Y are in Meters)

UTM_Zone Easting Northing Date Start Date Finish Date Depth Well

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Section:
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) • Non-Domestic • Domestic • All

POD / SURFACE DATA REPORT 09/16/2008

(acre ft per annum)		(quarters are 1-9W 2-9E 3-9W 4-9E)		(quarters are biggest to smallest)		X Y are in Feet		UTM are in Meters		Start Date		Finish Date		Depth Well	
DB File Mbr	Use	Diversion	Owner	POD Number	Source	Tws	Eng	Sec	q	q	q	q	q	q	q
EG 81026	STK	3	BUREAU OF LAND MANAGEMENT	EG 81026	Shallow	27N	05W	27	4	4	3	290530	4046294	09/12/2003	09/16/2003
EG 00046	IND	16	BURLINGTON RESOURCES OIL & GAS	EG 00046	Shallow	27N	05W	04	4	4	3	289133	4052788	01/13/1954	01/13/1954
EG 00199	OPN	4	BURLINGTON RESOURCES OIL & GAS	EG 00199	Artesian	27N	05W	03	2	1	3	290409	4053971	05/02/1967	05/02/1967

Record Count: 3

New Mexico Office of the State Engineer
FOD Reports and Downloads

Township: Range: Sections:
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (Firm) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

POD / Surface Data Report Avg Depth to Water Report Water Column Report

Clear Form WATERS Menu Help

POD / SURFACE DATA REPORT 09/16/2008

(quarters are 1=SW 2=NE 3=SE 4=SW)

DB File	Year	Use	Diversion	Owner	POD Number	Source	Two	Big	Sec	q	q	Zone	X	Y	UTM Zone	Eastings	Northings	Start Date	Finish Date	Depth Well
SJ	00048	IND	48	BURLINGTON RESOURCES OIL & GAS	SJ 00048	Shallow	27N	04W	01	4	2	2	13		13	302928	4052937	07/28/1953	07/31/1953	143
SJ	01049	OIL	30.55	BURLINGTON RESOURCES OIL & GAS	SJ 01049	Artesian	27N	04W	18	4	2	2	13		13	295646	4049831	06/30/1967	10/25/1980	15
SJ	01205	STK	60	MERIDIAN OIL PRODUCTION, INC.	SJ 01205		27N	04W	34	4	4	4	13		13	300255	4048355	10/18/1980		3054
SP	03616	STK	0.58	UNITED STATES OF AMERICA	SP 03616		27N	04W	24	2	4	4	13		13	303452	4048375			
SP	03617	STK	0.58	UNITED STATES OF AMERICA	SP 03617		27N	04W	25	4	4	4	13		13	303396	4045974			
SP	03810	PLS	1.24	CARSON NATIONAL FOREST	SP 03810		27N	04W	30	1	2	2	13		13	294693	4047368			
SP	03971	STK	0	CARSON NATIONAL FOREST	SP 03971		27N	04W	12	2	3	3	13		13	303116	4051590			

Record Count: 7

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: [27N] Range: [03W] Sections: []
NAD27 X: [] Y: [] Zone: [] Search Radius: []
County: [] Basin: [] Number: [] Suffix: []
Owner Name: (First) [] (Last) []
[] Non-Domestic [] Domestic [] All

POD / Surface Data Report Avg Depth to Water Report Water Column Report

Clear Form WATERS Menu Help

POD / SURFACE DATA REPORT 10/19/2008

DB File Nbr (acre ft per annum)
Use Diversion Owner
No Records found, try again

(quarters are 1-NW 2-NE 3-SW 4-SE)
(quarters are biggest to smallest)
Source Tws Rng Sec q q q

X Y are in Feet X Zone X

UTM are in Meters)
UTM_Zone Easting Northing

Start Date

Finish Date

Depth Well 1

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report
Clear Form | iWATERS Menu | Help

WATER COLUMN REPORT 08/12/2008

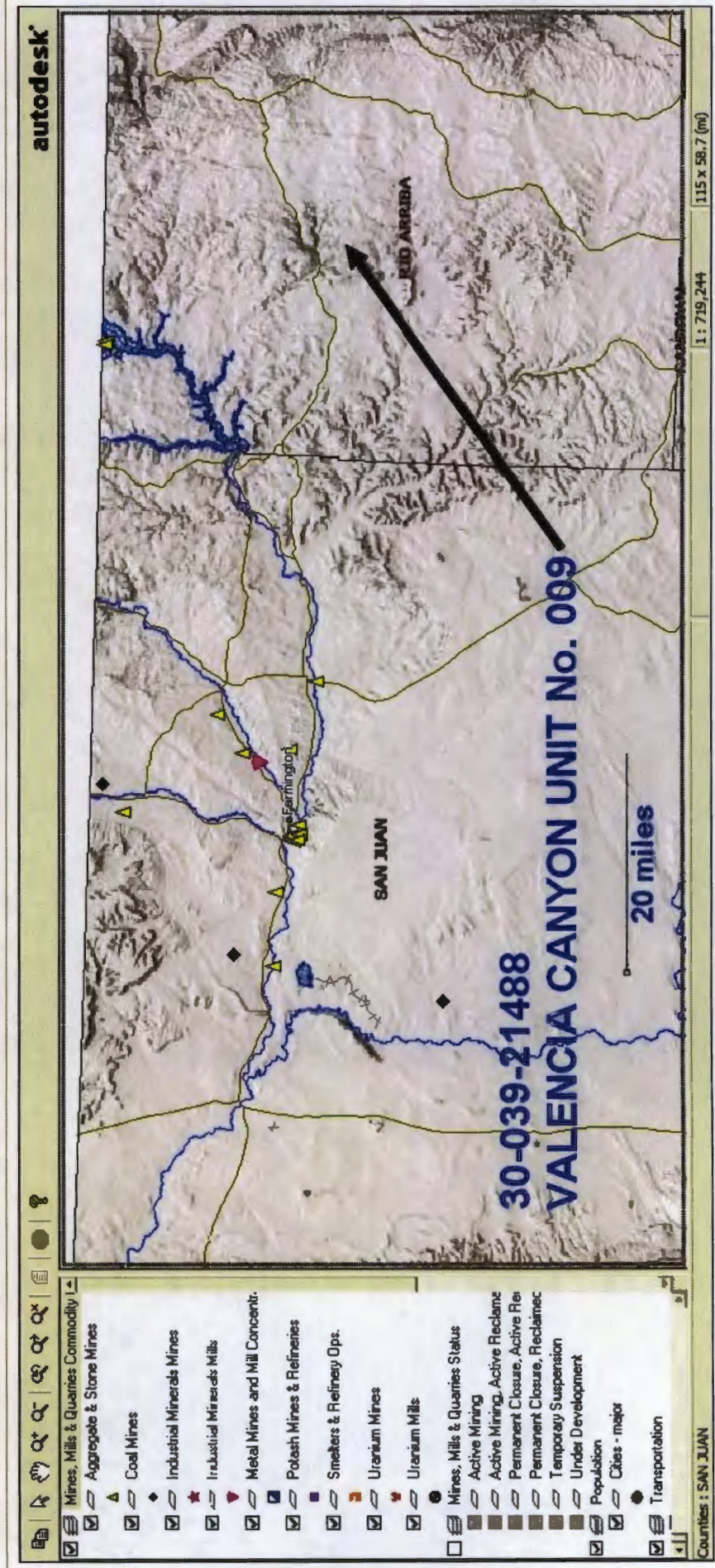
(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water Column	Water (in feet)
SJ 02339	29N	05W	29	3	3	3				350	108	242	
SJ 00422	29N	05W	31	2						239	135	104	
SJ 00056	29N	05W	31	2	3	1				142	50	92	
SJ 00057	29N	05W	31	2	3	1				158	57	101	
SJ 03208	29N	05W	31	3	3	3				220	160	60	
SJ 02383	29N	05W	32	1	1	1				300	100	200	

Record Count: 6



Mines, Mills and Quarries Web Map



XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
General Design and Construction Plan
For Below-Grade Tanks

In accordance with Rule 19.15.17.11 NMAC the following information describes the design and construction of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

1. XTO will design and construct below-grade tanks to contain liquids and solids and prevent contamination of fresh water and protect public health and environment.
2. XTO will post a well sign, in compliance with 19.15.3.103 NMAC, on the existing well site operated by XTO where the existing below-grade tank is located. The sign will list the Operator on record as the operator, the location of the well site by unit letter, section, township, range, and emergency telephone numbers.
3. XTO is requesting approval of an alternative fencing to be used on below-grade tank locations. Below-grade tank locations will be fenced utilizing 48" steel mesh field-fence (hogwire) with pipe railing along the top. A 6' chain link fence will be utilized around the well pad if the well site is within a city limits or ¼ mile of a permanent residence, school, hospital, institution or church. Below-grade tanks located within 1000' of a permanent residence, school, hospital, institution or church will be fenced by 6' chain link fence with at least two strands of barbed wire at the top. All gates associated with below-grade tanks will remain closed and locked when responsible individuals are not on site.
4. XTO shall construct below-grade tanks with an expanded metal covering or solid vaulted top on the top of the below-grade tank.
5. XTO will ensure that below-grade tanks are constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight. Tanks will be constructed of A36 carbon steel with 3/16" sides and ¼" bottom. (See attached drawing).
6. The below-grade tank system will have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom. Sand bedding (4") will be placed on top of a level foundation to ensure prevention of punctures, cracks or indentations of the liner or tank bottom.
7. XTO will construct a berm and/or diversion ditch in a manner that prevents the collection of surface water run-on. Below-grade tanks will be equipped with automatic high level shut-off devices as well as manually operated shut-off valves. (See attached drawing).
8. XTO will construct and use below-grade tanks that do not have double walls. The below-grade tank sidewalls will be open for visual inspection for leaks. The sidewalls of the cellar will be constructed with 2" X 12" pine sidewalls and 4" X 4" pine brace posts. The below-grade tank

XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
General Design and Construction Plan
For Below-Grade Tanks
Page 2

bottom will be elevated a minimum of 6" above the underlying ground surface and the below-grade tank will be underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected. (See attached drawing).

9. XTO will equip below-grade tanks designed in this manner with a properly functioning automatic high-level shut-off control device and manual controls to prevent overflows. (See attached drawing).
10. XTO will demonstrate to the OCD that the geomembrane liner complies with the specifications of Subparagraph (a) of Paragraph (4) of Subsection I of 19.15.17.11 NMAC and obtain approval from OCD prior to the installation of the design. The geomembrane liner shall have a hydraulic conductivity no greater than 1×10^{-9} cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidics and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A. (See attached drawing).
11. The general specifications for design and construction are attached.



XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
General Maintenance and Operating Plan
For Below-Grade Tanks

In accordance with Rule 19.15.17.12 NMAC the following information describes the operation and maintenance of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

1. XTO will operate and maintain below-grade tanks to contain liquids and solids, maintain the integrity of the liner and secondary containment system, prevent contamination of fresh water and protect public health and the environment. Fluid levels will be monitored weekly and high levels will be removed as necessary. Monthly inspections will be conducted to monitor integrity of below-grade tank systems and below-grade tanks will be equipped with automatic high-level shut-off devices.
2. XTO will not allow below-grade tanks to overflow and will use berms and/or diversion ditch to prevent surface run on to enter the below-grade tank. Below-grade tanks will be equipped with automatic high-level shut-off control devices as well as manually operated shut-off valves. See attached drawing for vault design and placement of diversion berms and shut-off devices.
3. XTO will continuously remove any visible or measurable layer of oil from the fluid surface of below-grade tanks in order to prevent significant accumulation of oil.
4. XTO will inspect the below-grade tank monthly and maintain written records for five years. Monthly inspections will consist of documenting the following: (see attached template),
 - Well Name
 - API #
 - Sec., Twn., Rng.
 - XTO Inspector's name
 - Inspection date and time
 - Visible tears in liner
 - Visible signs of tank overflow
 - Collection of surface run on
 - Visible layer of oil
 - Visible signs of tank leak
 - Estimated freeboard
5. XTO will maintain adequate freeboard to prevent over topping of the below-grade tank. High level shut-off devices control the freeboard at an average of 28" beneath the top of the tank.
6. XTO will not discharge into or store any hazardous waste in any below-grade tank.
7. If a below-grade tank develops a leak, or if any penetration of a below-grade tank occurs below the liquids surface, XTO will remove all liquids above the damage or leak line within 48 hours,

XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
General Maintenance and Operating Plan
For Below-Grade Tanks
Page 2

notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the below-grade tank. If an existing below-grade tank does not meet current requirements of Paragraphs 1-4 of Subsection I of 19.15.17.11 NMAC the tank will be modified or retrofitted to comply. If compliance can not be achieved XTO will implement the approved closure plan.

Freeboard
Est. (ft)

XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
General Closure Plan
For Below-Grade Tanks

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

1. XTO will close below-grade tanks within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
2. XTO will close a below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.
3. XTO will close a permitted below-grade tank within 60 days of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The closure report will be filed on form C-144.
4. XTO will remove liquids and sludge from below-grade tanks prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:
 - Envirotech Permit No. NM01-0011 and IEI Permit No. NM 01-0010B
 - Soil contaminated by exempt petroleum hydrocarbons
 - Produced sand, pit sludge and contaminated bottoms from storage of exempt wastes
 - Basin Disposal Permit No. NM01-005
 - Produced water
5. XTO will remove the below-grade tank and dispose of it in a division approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office has approved prior to removal. Any associated liners will be removed, properly cleaned and disposed of per 19.15.9.712 NMAC at San Juan County Landfill. Documentation of the final disposition will be included in the closure report.
6. XTO will remove any on-site equipment associated with a below-grade tank unless the equipment is required for some other purpose.
7. XTO will test the soils beneath the below-grade tank to determine whether a release has occurred. At a minimum 5 point composite sample will be collected along with individual grab samples from any area that is wet, discolored or showing other evidence of a release. Samples will be

XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
General Closure Plan
For Below-Grade Tanks
Page 2

analyzed for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. XTO will notify the division of its results on form C-141.

8. If XTO or the division determines that a release has occurred, XTO will comply with 19.15.3.116 NMAC and 19.15.1.19NMAC as appropriate.
9. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, XTO will backfill the excavation with compacted, non-waste containing, earthen material; construct a division prescribed soil cover; recontour and re-vegetate the site.
10. Notice of Closure operations will be given to the Aztec Division District III office between 72 hours and one week prior to the start of closure activities via email or verbally.
The notification will include the following:
 - i. Operator's name
 - ii. Well Name and API Number
 - iii. Location by Unit Letter, Section, Township, and Range

The surface owner shall also be notified prior to the implementation of any closure operations of below-grade tanks as per the approved closure plan using certified mail, return receipt requested.

11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
12. A minimum of 4 feet of cover shall be achieved and the cover shall include 1 foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. Soil cover will be constructed to the site's existing grade and ponding of water and erosion of the cover material will be prevented with drainage control, natural drainages and silt traps where needed.
13. XTO will seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
General Closure Plan
For Below-Grade Tanks
Page 3

14. All closure activities will include proper documentation and be available for review upon request and will be submitted in closure report form to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on form C-144 and incorporate the following:
 - i. Proof of closure notice to division and surface owner;
 - ii. Details on capping and covering, where applicable;
 - iii. Inspection reports;
 - iv. Confirmation sampling analytical results;
 - v. Disposal facility name(s) and permit number(s);
 - vi. Soil backfilling and cover installation;
 - vii. Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable);
 - viii. Photo documentation of the site reclamation.

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

QUESTIONS

Action 97226

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 97226
	Action Type: [C-144] Legacy Below Grade Tank Plan (C-144LB)

QUESTIONS

Facility and Ground Water	
<i>Please answer as many of these questions as possible in this group. More information will help us identify the appropriate associations in the system.</i>	
Facility or Site Name	VALENCIA CANYON UNIT 9
Facility ID (##), if known	Not answered.
Facility Type	Below Grade Tank - (BGT)
Well Name, include well number	VALENCIA CANYON UNIT 9
Well API, if associated with a well	30-039-21488
Pit / Tank Type	Not answered.
Pit / Tank Name or Identifier	Not answered.
Pit / Tank Opened Date, if known	Not answered.
Pit / Tank Dimensions, Length (ft)	Not answered.
Pit / Tank Dimensions, Width or Diameter (ft)	Not answered.
Pit / Tank Dimensions, Depth (ft)	Not answered.
Ground Water Depth (ft)	Not answered.
Ground Water Impact	Not answered.
Ground Water Quality (TDS)	Not answered.

Below-Grade Tank

Subsection I of 19.15.17.11 NMAC

Volume / Capacity (bbls)	120
Type of Fluid	Produced Water
Pit / Tank Construction Material	Steel
Secondary containment with leak detection	Not answered.
Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Not answered.
Visible sidewalls and liner	Not answered.
Visible sidewalls only	Not answered.
Tank installed prior to June 18, 2008	True
Other, Visible Notation. Please specify	Not answered.
Liner Thickness (mil)	Not answered.
HDPE (Liner Type)	Not answered.
PVC (Liner Type)	Not answered.
Other, Liner Type. Please specify (Variance Required)	Not answered.

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QUESTIONS, Page 2

Action 97226

QUESTIONS (continued)

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QUESTIONS

Fencing	
<i>Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)</i>	
Chain link, six feet in height, two strands of barbed wire at top (<i>Required if located within 1000 feet of a permanent residence, school, hospital, institution or church</i>)	Not answered.
Four foot height, four strands of barbed wire evenly spaced between one and four feet	Not answered.
Alternate, Fencing. Please specify (Variance Required)	4' steel mesh

Netting	
<i>Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)</i>	
Screen	Not answered.
Netting	Not answered.
Other, Netting. Please specify (Variance May Be Needed)	expanded metal or solid vaulted top

Signs	
<i>Subsection C of 19.15.17.11 NMAC (If there are multiple operators at a site, each operator must have their own sign in compliance with Subsection C of 19.15.17.11 NMAC.)</i>	
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	Not answered.
Signed in compliance with 19.15.16.8 NMAC	True

Variances and Exceptions	
<i>Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance. Please check a box if one or more of the following is requested, if not leave blank:</i>	
Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.	Not answered.
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval	Not answered.

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QUESTIONS, Page 3

Action 97226

QUESTIONS (continued)

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QUESTIONS

Siting Criteria (regarding permitting) 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.

Siting Criteria, General Siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank	No
NM Office of the State Engineer - iWATERS database search	True
USGS	Not answered.
Data obtained from nearby wells	Not answered.

Siting Criteria, Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lakebed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark)	No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption	No

Proposed Closure Method	
Below-grade Tank	Below Grade Tank - (BGT)
Waste Excavation and Removal	Not answered.
Alternate Closure Method. Please specify (Variance Required)	Not answered.

Operator Application Certification	
Registered / Signature Date	11/12/2008

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ACKNOWLEDGMENTS

Action 97226

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ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that I have received prior approval from the OCD to submit documentation of a legacy below-grade tank on behalf of my operator.
<input checked="" type="checkbox"/>	I hereby certify that the information submitted with this documentation is true, accurate and complete to the best of my knowledge and belief.

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CONDITIONS

Action 97226

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CONDITIONS

Created By	Condition	Condition Date
jburdine	None	8/8/2022