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 Dr.
Santa Fe, NM 87505

RECEIVED
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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: XTO Energy, Inc. OGRID #: 5380
Address: #382 County Road 3100, Aztec, NM 87410
Facility or well name: MADDOX GAS COM B # 1
API Number: 30-045-07782 OCD Permit Number:
U/L or Qtr/Qtr O Section 27 Township 29N Range 10W County: San Juan
Center of Proposed Design: Latitude 36.69242 Longitude 107.86876 NAD: ☐ 1927 ☒ 1983
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L_____ x W_____ x D_____

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: 120 bbl Type of fluid: Produced Water
Tank Construction material: Steel
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other Visible sidewalls, vaulted, automatic high-level shut off, no liner
Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

5.
☐ **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. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ 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 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☒ 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. - NM Office of the State Engineer - iWATERS database search; 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

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 H_2S, 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: 11-26-08

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:** 08/03/2022

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:

Form C-128 (6-57)

NEW MEXICO OIL CONSERVATION COMMISSION

Well Location and Acreage Dedication Plat

Section A.

Date October 9, 1958

Operator PAN AMERICAN PETROLEUM CORPORATION Lease MADDOX GAS UNIT "B"

Well No. 1 Unit Letter O Section 27 Township 29 NORTH Range 10 WEST, NMPM

Located 880' Feet From the SOUTH Line, 1835 Feet From the EAST

County SAN JUAN G. L. Elevation * Dedicated Acreage 160

Name of Producing Formation Pictured Cliffs Pool Aztec-Pictured Cliffs

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?
   Yes ___ No. X * To be reported later
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes X No ___. If answer is "yes", Type of Consolidation.
   Communitized (120 acres Pan American and 40 acres Southern Union)
3. If the answer to question two is "no", list all the owners and their respective interests below.

Owner	Land Description

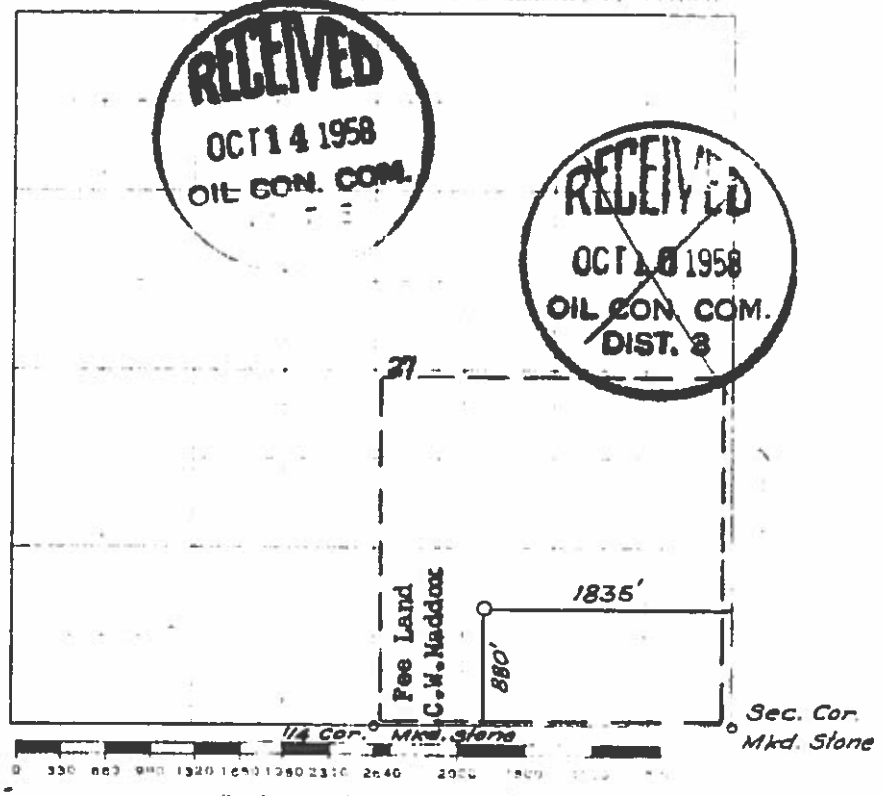
Section B.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

PAN AMERICAN PETROLEUM CORPORATION
(Operator)
R. M. Bauer, Jr. R M Bauer, Jr.
(Representative)
Box 487, Farmington, New Mexico
(Address)

Ref: GLO plat dated 19 April 1881

Note: All distances must be from outer boundaries of section.



This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Seal)

Date Surveyed 23 APRIL 1958

Farmington, New Mexico

James P. Leese
Registered Professional Engineer and/or Land Surveyor
JAMES P. LEESE N. MEX. REG. No. 1463

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

Pit Permit Siting Criteria Information Sheet

Client:	XTO Energy
Project:	Pit Permits
Revised:	19-Nov-08
Prepared by:	Devin Hencmann

API#:	3004507782	USPLSS:	29N, 10W, 27O
Name:	MADDOX GAS COM B #1	Lat/Long:	36.69242/-107.86876
Depth to groundwater:	< 50'	Geologic formation:	Naciemento
Distance to closest continuously flowing watercourse:	1,975' N to the 'San Juan River'		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	200' E to Armenta Canyon wash		
		Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'	No		
		Annual Precipitation:	Bloomfield: 8.71" , Farmington: 8.21", Otis: 10.41"
Domestic fresh water well or spring within 500'	No	Precipitation Notes:	Historical daily max: Bloomfield (4.19")
Any other fresh water well or spring within 1000'	No		
Within incorporated municipal boundaries	No	Attached Documents:	i-Waters report pdf
Within defined municipal fresh water well field	No		Topo map pdf, Aerial pdf, Mines and Quarries Map pdf,i-Waters Ground Water Data Map pdf, FEMA flood zone map pdf
Wetland within 500'	No	Mining Activity:	None
Within unstable area	No		
Within 100 year flood plain	No-FEMA Zone 'X'		

Additional Notes:

255' S to small concrete lined irrigation canal

316' N to large concrete lined irrigation canal

MADDOX GAS COM B #1 Below Ground Tank
Siting Criteria and Closure Plan

Well Site Location
Legals: T29N, R10W, Section 27O
Latitude/Longitude: approximately 36.69242, -107.86876
County: San Juan County, NM
General Description: near the San Juan River

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 below ground tank location will be near Armenta Canyon, southeast of Bloomfield and south of the San Juan River. The Nacimiento Formation of Tertiary Age is exposed, along with Quaternary alluvial and aeoloian sands within dry washes and arroyos.

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 Nacimiento Formation lies at the surface. Thickness of the Nacimiento ranges from 418 to 2232 feet (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation are between 0 and 1000' deep in this section of the basin (Stone et al., 1983). Groundwater within these aquifers flows toward the nearby San Juan River and its tributaries.

The prominent soil type at the proposed site is entisols, which are defined as soils that do not show any profile development. Soils are basically unaltered from their parent rock. Miles of arroyos, washes and intermittent streams exist as part of the drainage network towards the La Plata River (www.emnrd.state.nm.us). These features often cut into soil and other unconsolidated materials, contributing to sedimentation downstream. The sudden influx of water from storm events easily erodes soils that cover the area.

The climate of the region is arid, averaging just over 8 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 and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography and proximity to surface hydrologic features are also taken into consideration.

Local aquifers include sandstones within the Nacimiento Formation, which ranges from 0 to 1000 feet deep in this area, as well as shallow aquifers within Quaternary alluvial deposits (Stone et al., 1983). The 1000-foot depth range for Nacimiento aquifers covers an area over 20 miles wide, and depth decreases towards the margin of the San Juan Basin. The site in question is more centrally located, and depth to the aquifer is expected to be closer to 1000 feet. It is well known that groundwater close to the San Juan River can be shallow, as the Quaternary deposits near the river itself form shallow aquifers. The proposed site is situated 1,975 feet to the south of the San Juan River, and is approximately 45 feet higher in elevation (Google Earth).

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. A map showing the location of wells in reference to the proposed pit location is also included. Pinpoints show locations of wells and the labels for each pinpoint indicate depth to groundwater in feet. Wells are clustered to the north of the proposed site along the San Juan River. Depth to groundwater within the nearby wells ranges from 6 feet to 186 feet below ground surface. The closest well to the proposed site is located approximately 1,695 feet to the northwest, and has a 20 foot lower topographic elevation than the proposed site (Google Earth). Depth to groundwater within the well is 31 feet below ground surface. Another well to the southwest is about 30 feet higher in elevation then the proposed site, and has a depth to groundwater of 70 feet.

Lodestar Services, Inc PO Box 4465 Durango, CO 81302	MADDOX GAS COM B #1 T29N, R10W, S27O San Juan county, NM	TOPOGRAPHIC MAP

Lodestar Services, Inc PO Box 4465 Durango, CO 81302	MADDOX GAS COM B #1 T29N, R10W, S27O San Juan county, NM	i-Waters Ground Water Data Map

New Mexico Office of the State Engineer
POD Reports and Downloads

WATER COLUMN REPORT 10/20/2008

(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 (in feet)
SJ 00867	29N	11W	07	4						77	55	22
SJ 01302	29N	11W	07	4	1					250	210	40
SJ 01891	29N	11W	07	4	1	3				157		
SJ 01851	29N	11W	10	4	4					125	48	77
SJ 02466 S	29N	11W	11	4	3	3				65		
SJ 02466	29N	11W	11	4	3	3				66		
SJ 02991	29N	11W	13	3	4	2				60		
SJ 03136	29N	11W	13	3	4	4				20		
SJ 00987	29N	11W	13	4						415	300	115
SJ 01426	29N	11W	14	1	4					155	10	145
SJ 00007	29N	11W	14	2	2	3				752		
SJ 03550	29N	11W	14	3	2	1				10		
SJ 01774	29N	11W	14	3	4	2				82	6	76
SJ 03360	29N	11W	14	3	4	2				40		
SJ 03175	29N	11W	14	4	2	1				60	24	36
SJ 03164	29N	11W	14	4	2	1				75	56	19
SJ 03733 POD1	29N	11W	15	4	2	1				64	20	44
SJ 02378	29N	11W	15	4	3	2				75	12	63
SJ 03579	29N	11W	15	4	4	1				83	30	53
SJ 02141	29N	11W	16	4	3	4				110	40	70
SJ 02926	29N	11W	17	2	4	3				375	80	295
SJ 03399	29N	11W	17	4	2					100		
SJ 00487	29N	11W	17	4	4					60	6	54
SJ 02868	29N	11W	17	4	4	4				50		
SJ 01641	29N	11W	19	2	2	3				120	55	65
SJ 02026	29N	11W	19	3	1			440000	2077700	27	6	21
SJ 02970	29N	11W	19	4	3	2				100	18	82
SJ 01250	29N	11W	19	4	4					60	20	40
SJ 02869	29N	11W	20	2	2	1				50		
SJ 00583	29N	11W	20	3	3	2				150	30	120

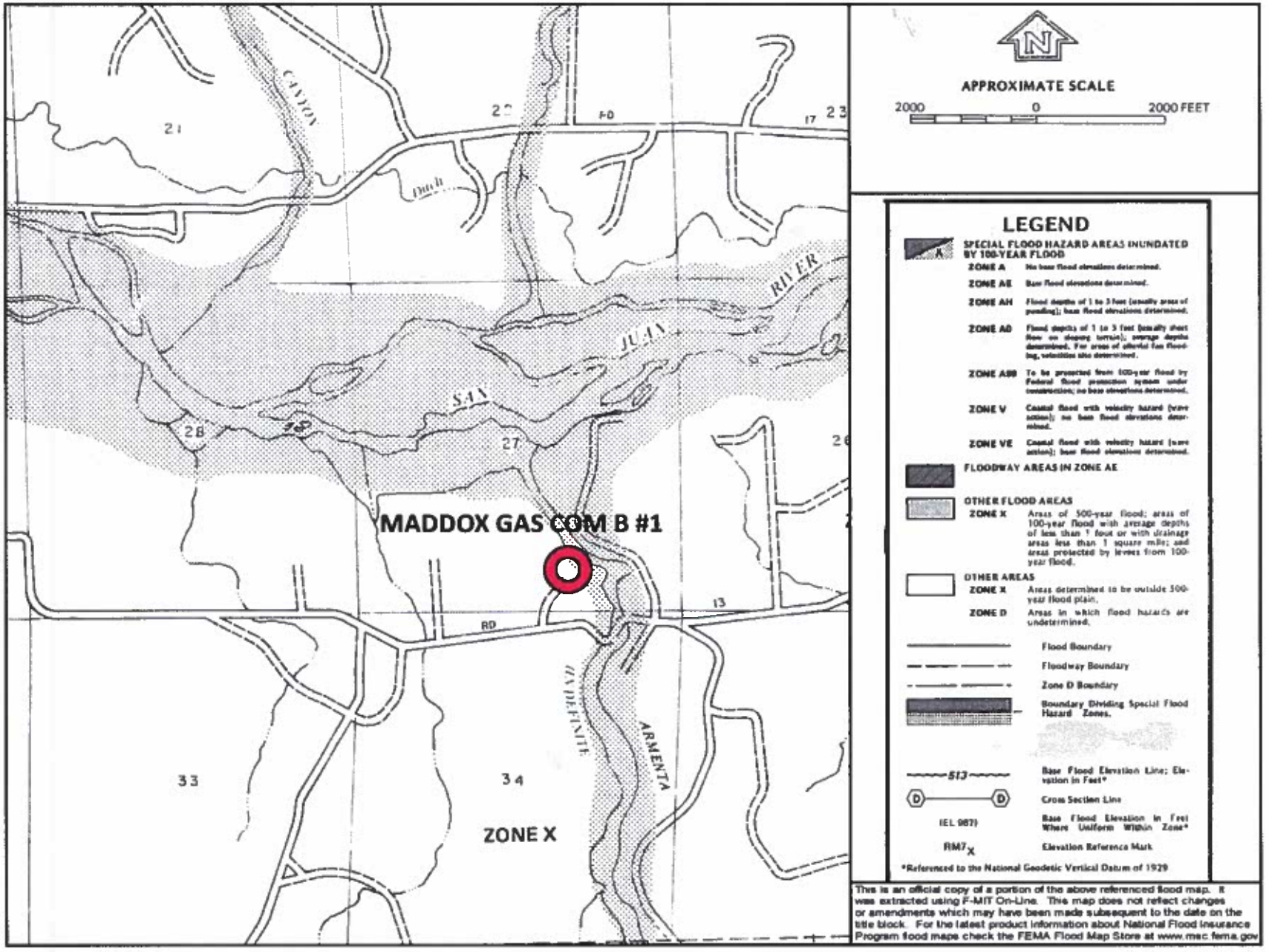
SJ 01355	29N	11W	20	4	4		36	3	33
SJ 00452	29N	11W	21				42	10	32
SJ 01969	29N	11W	21	2			65	55	10
SJ 00701 CLW312190	29N	11W	21	2	2		70	14	56
SJ 00701	29N	11W	21	2	2	1	73		
SJ 03350	29N	11W	21	2	2	3	50		
SJ 01090	29N	11W	21	2	4		31	12	19
SJ 02863	29N	11W	21	2	4	1	52	20	32
SJ 03659	29N	11W	21	3	2	2	45	10	35
SJ 01888	29N	11W	21	4	2	2	47	8	39
SJ 02200	29N	11W	22				60	22	38
SJ 01557	29N	11W	22	1	2		70	11	59
SJ 00796	29N	11W	22	1	2		50	8	42
SJ 00704	29N	11W	22	1	2		55	20	35
SJ 01703	29N	11W	22	1	2		68	3	65
SJ 03747 POD1	29N	11W	22	1	2	3	47	27	20
SJ 02813	29N	11W	22	1	2	3	59	16	43
SJ 01214	29N	11W	22	1	3		49	12	37
SJ 00484	29N	11W	22	1	3	1	37	10	27
SJ 00320	29N	11W	22	1	3	1	38	10	28
SJ 03532	29N	11W	22	1	3	3	49	14	35
SJ 00151	29N	11W	22	1	3	4	45	18	27
SJ 02721	29N	11W	22	1	4			55	
SJ 03503	29N	11W	22	2	3	3	72	18	54
SJ 02578	29N	11W	22	2	3	3	58	24	34
SJ 03093	29N	11W	22	2	3	4	42	22	20
SJ 03189	29N	11W	22	3	2	1	45	20	25
SJ 03188	29N	11W	22	3	2	2	45	11	34
SJ 02020	29N	11W	22	3	3		27	6	21
SJ 02138	29N	11W	22	4	2		40	7	33
SJ 02529	29N	11W	22	4	2	3	30	9	21
SJ 03479	29N	11W	22	4	2	3	43	4	39
SJ 03049	29N	11W	22	4	2	4	33	10	23
SJ 00696	29N	11W	22	4	3		34	12	22
SJ 01974	29N	11W	22	4	3	3	47	11	36
SJ 03567	29N	11W	23	1	2	3	50	22	28
SJ 03557	29N	11W	23	1	3	1	50	15	35
SJ 03558	29N	11W	23	1	3	1	50	15	35
SJ 03559	29N	11W	23	1	3	4	45	15	30
SJ 00812	29N	11W	23	1	4		44		

SJ 03546	29N	11W	23	1	4	2			50	15	35
SJ 03591	29N	11W	23	1	4	4			55	20	35
SJ 01870	29N	11W	23	2					58	30	28
SJ 03130	29N	11W	23	2	1	3			50	30	20
SJ 03201	29N	11W	23	2	1	3			60	30	30
SJ 03353	29N	11W	23	2	1	3			45	25	20
SJ 01610	29N	11W	23	2	2				52	25	27
SJ 01573	29N	11W	23	2	3				41	21	20
SJ 03073	29N	11W	23	2	3	1			30		
SJ 03286	29N	11W	23	3	3	1			38	28	10
SJ 02799	29N	11W	23	4	1	1			56	15	41
SJ 03548	29N	11W	23	4	1	1			50	15	35
SJ 01962	29N	11W	24	1	2	2			45	12	33
SJ 03343	29N	11W	24	1	4	1			35	18	17
SJ 00804	29N	11W	25	1	4				37	25	12
SJ 01808 0-5	29N	11W	26	3	1	1			52	43	9
SJ 02121	29N	11W	27	1	1				30	6	24
SJ 02210	29N	11W	27	1	1				32	8	24
SJ 03588	29N	11W	27	1	1	2					
SJ 02227	29N	11W	27	1	1	4			27	6	21
SJ 00700	29N	11W	27	1	3	3			20	7	13
SJ 01808 0-4	29N	11W	27	2	3	3			32	25	7
SJ 01808 0-1	29N	11W	27	2	4	2			25	17	8
SJ 01808 0-2	29N	11W	27	2	4	3			27	19	8
SJ 01808 0-3	29N	11W	27	2	4	4			39	34	5
SJ 02664	29N	11W	27	3	2				40	26	14
SJ 02664 S	29N	11W	27	3	2				38	23	15
SJ 02664 S-2	29N	11W	27	3	2				34	19	15
SJ 02664 S-3	29N	11W	27	3	2				41	30	11
SJ 02664 S-9	29N	11W	27	3	2				33	19	14
SJ 02664 S-4	29N	11W	27	3	2				42	30	12
SJ 02664 S-10	29N	11W	27	3	2				33	19	14
SJ 02664 S-5	29N	11W	27	3	2				41	30	11
SJ 02664 S-6	29N	11W	27	3	2				40	28	12
SJ 02664 S-7	29N	11W	27	3	2				37	23	14
SJ 02664 S-8	29N	11W	27	3	2				35	25	10
SJ 02148	29N	11W	27	4	2				305	186	119
SJ 01809 0-6	29N	11W	27	4	2	1			50		
SJ 03762 POD1	29N	11W	28	1	1		267348	2075529	27	15	12
SJ 03476	29N	11W	28	1	1	2			65		

SJ 03415	29N	11W	26	1	2	1			60	20	40
SJ 02559	29N	11W	26	1	2	4			15	7	8
SJ 02330	29N	11W	26	2	1				128	115	13
SJ 03021	29N	11W	26	2	1	3			16	5	11
SJ 01606	29N	11W	26	2	2				35	8	27
SJ 03468	29N	11W	26	2	4		367704	2073506	50		
SJ 03469	29N	11W	26	2	4	3			50		
SJ 02713	29N	11W	26	3	1	1			26	12	14
SJ 02858	29N	11W	26	3	1	3			40		
SJ 02714	29N	11W	26	3	2				43	28	15
SJ 02708	29N	11W	26	3	2				26	12	14
SJ 03149	29N	11W	26	4	2	2			60	35	25
SJ 03475	29N	11W	25	1	1	3			40	20	20
SJ 00292	29N	11W	25	2	1	4			24	9	15
SJ 01554	29N	11W	25	2	2				35	18	17
SJ 02038	29N	11W	25	4	1				14	4	10
SJ 03298	29N	11W	25	4	1	1			70	6	64
SJ 02023	29N	11W	25	4	2				24	7	17
SJ 02182	29N	11W	25	4	2				27	11	16
SJ 00822	29N	11W	25	4	3				34	15	19
SJ 03421	29N	11W	25	4	4	3			50	28	22
SJ 01391	29N	11W	30	2					40	25	15
SJ 03348	29N	11W	30	2	1	3			60		
SJ 01260	29N	11W	30	2	2				42	16	26
SJ 01264	29N	11W	30	2	2				27	12	15
SJ 01328	29N	11W	30	2	2				28	15	13
SJ 01821	29N	11W	30	2	4				70	6	64
SJ 00875	29N	11W	30	4	1				37	20	17
SJ 02922	29N	11W	31	3	2	2			75		
SJ 03795 POD1	29N	11W	31	3	2	4	266438	2067001	75	45	30
SJ 03541	29N	11W	31	3	4	1			80	40	40
SJ 00441	29N	11W	32	2	2						
SJ 00103	29N	11W	32	4	4	4			263		
SJ 00103 S	29N	11W	32	4	4	4			254		
SJ 03666	29N	11W	33	2	1	3			49	30	19

Lodestar Services, Inc PO Box 4465 Durango, CO 81302	MADDOX GAS COM B #1 T29N, R10W, S27O San Juan county, NM	AERIAL PHOTOGRAPH

Lodestar Services, Inc PO Box 4465 Durango, CO 81302	MADDOX GAS COM B #1 T29N, R10W, S27O San Juan county, NM	Mines and Quarries Map


MADDOX GAS COM B #1
ZONE X
CANYON
RIVER
SAN JUAN
RD
ARMENTA
21
28
27
33
34
13
APPROXIMATE SCALE
2000 0 2000 FEET
LEGEND
SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD
ZONE A No base flood elevations determined.
ZONE AE Base flood elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE A99 To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
ZONE V Coastal flood with velocity hazard (wave action); no base flood elevations determined.
ZONE VE Coastal flood with velocity hazard (wave action); base flood elevations determined.
FLOODWAY AREAS IN ZONE AE
OTHER FLOOD AREAS
ZONE X Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.
OTHER AREAS
ZONE X Areas determined to be outside 500-year flood plain.
ZONE D Areas in which flood hazards are undetermined.
Flood Boundary
Floodway Boundary
Zone D Boundary
Boundary Dividing Special Flood Hazard Zones.
513 Base Flood Elevation Line; Elevation in Feet*
Cross Section Line
(EL 987) Base Flood Elevation in Feet Where Uniform Within Zone*
RM7x Elevation Reference Mark
*Referenced to the National Geodetic Vertical Datum of 1929
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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).

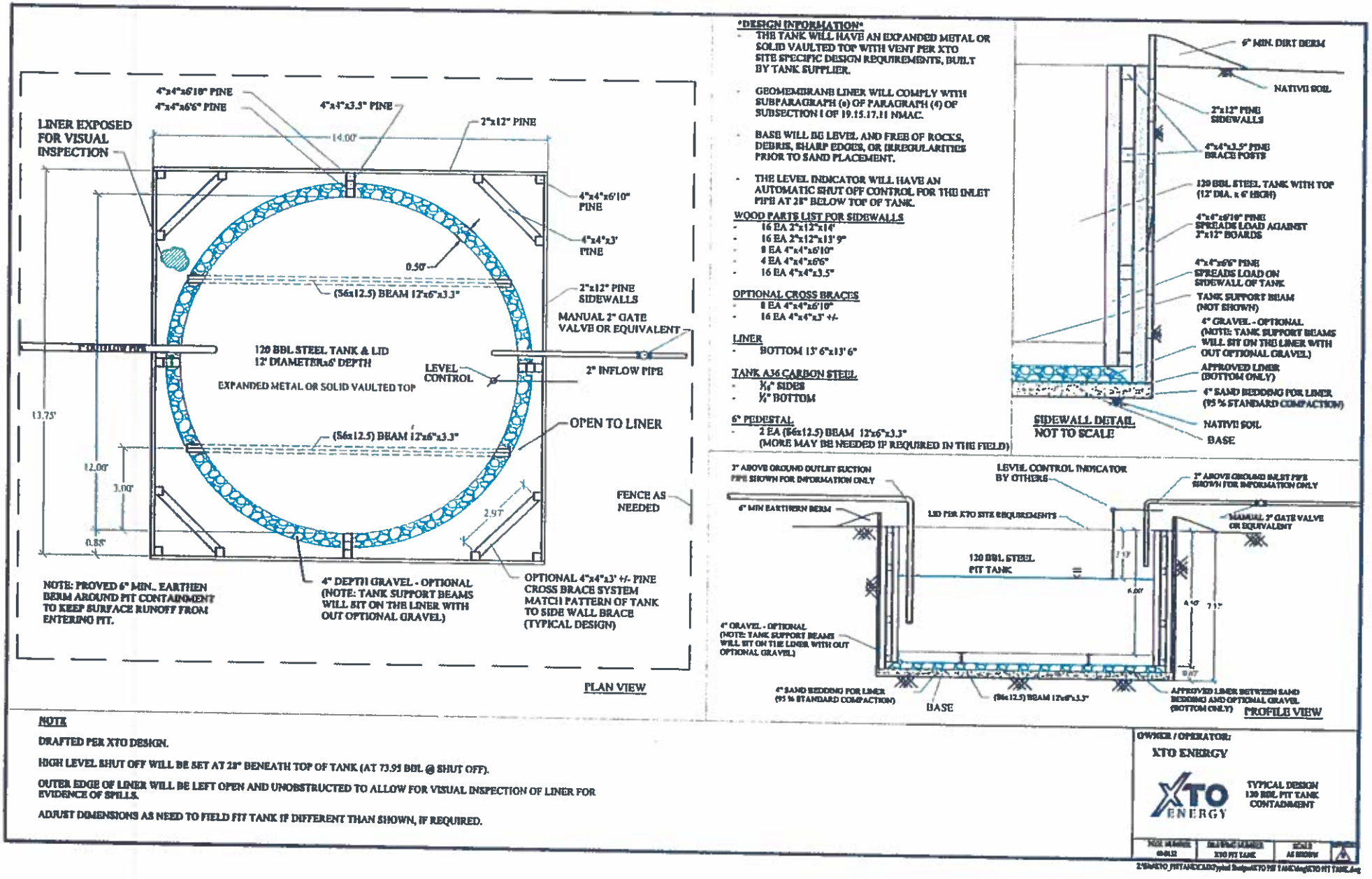
8. XTO will construct and use below-grade tanks that do not have double walls. The below-grade tank sidewalls will be open for visual inspection for leaks. The sidewalls of the cellar will be constructed with 2" X 12" pine sidewalls and 4" X 4" pine brace posts. The below-grade tank

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 x 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.


LINER EXPOSED FOR VISUAL INSPECTION
4"x4"x6'10" PINE
4"x4"x6'6" PINE
4"x4"x3.5" PINE
2"x12" PINE
14.00'
4"x4"x6'10" PINE
4"x4"x3' PINE
0.50'
(S6x12.5) BEAM 12'x6"x3.3"
2"x12" PINE SIDEWALLS
MANUAL 2" GATE VALVE OR EQUIVALENT
2" OUTFLOW PIPE
120 BBL STEEL TANK & LID
12' DIAMETERx6' DEPTH
EXPANDED METAL OR SOLID VAULTED TOP
LEVEL CONTROL
2" INFLOW PIPE
OPEN TO LINER
13.75'
(S6x12.5) BEAM 12'x6"x3.3"
12.00'
3.00'
0.88'
2.97'
FENCE AS NEEDED
NOTE: PROVED 6" MIN. EARTHEN BERM AROUND PIT CONTAINMENT TO KEEP SURFACE RUNOFF FROM ENTERING PIT.
4" DEPTH GRAVEL - OPTIONAL (NOTE: TANK SUPPORT BEAMS WILL SIT ON THE LINER WITH OUT OPTIONAL GRAVEL)
OPTIONAL 4"x4"x3' +/- PINE CROSS BRACE SYSTEM MATCH PATTERN OF TANK TO SIDE WALL BRACE (TYPICAL DESIGN)
PLAN VIEW
DESIGN INFORMATION
- THE TANK WILL HAVE AN EXPANDED METAL OR SOLID VAULTED TOP WITH VENT PER XTO SITE SPECIFIC DESIGN REQUIREMENTS, BUILT BY TANK SUPPLIER.
- GEOMEMBRANE LINER WILL COMPLY WITH SUBPARAGRAPH (a) OF PARAGRAPH (4) OF SUBSECTION I OF 19.15.17.11 NMAC.
- BASE WILL BE LEVEL AND FREE OF ROCKS, DEBRIS, SHARP EDGES, OR IRREGULARITIES PRIOR TO SAND PLACEMENT.
- THE LEVEL INDICATOR WILL HAVE AN AUTOMATIC SHUT OFF CONTROL FOR THE INLET PIPE AT 28" BELOW TOP OF TANK.
WOOD PARTS LIST FOR SIDEWALLS
- 16 EA 2"x12"x14'
- 16 EA 2"x12"x13' 9"
- 8 EA 4"x4"x6'10"
- 4 EA 4"x4"x6'6"
- 16 EA 4"x4"x3.5"
OPTIONAL CROSS BRACES
- 8 EA 4"x4"x6'10"
- 16 EA 4"x4"x3' +/-
LINER
- BOTTOM 13' 6"x13' 6"
TANK A36 CARBON STEEL
- ¼" SIDES
- ¼" BOTTOM
6" PEDESTAL
- 2 EA (S6x12.5) BEAM 12'x6"x3.3" (MORE MAY BE NEEDED IF REQUIRED IN THE FIELD)
6" MIN. DIRT BERM
NATIVE SOIL
2"x12" PINE SIDEWALLS
4"x4"x3.5" PINE BRACE POSTS
120 BBL STEEL TANK WITH TOP (12' DIA. x 6' HIGH)
4"x6"x6'10" PINE SPREADS LOAD AGAINST 2"x12" BOARDS
4"x4"x6'6" PINE SPREADS LOAD ON SIDEWALL OF TANK
TANK SUPPORT BEAM (NOT SHOWN)
4" GRAVEL - OPTIONAL (NOTE: TANK SUPPORT BEAMS WILL SIT ON THE LINER WITH OUT OPTIONAL GRAVEL)
APPROVED LINER (BOTTOM ONLY)
4" SAND BEDDING FOR LINER (95 % STANDARD COMPACTION)
NATIVE SOIL
BASE
SIDEWALL DETAIL
NOT TO SCALE
3" ABOVE GROUND OUTLET SUCTION PIPE SHOWN FOR INFORMATION ONLY
LEVEL CONTROL INDICATOR BY OTHERS
3" ABOVE GROUND INLET PIPE SHOWN FOR INFORMATION ONLY
6" MIN EARTHEN BERM
LID PER XTO SITE REQUIREMENTS
MANUAL 3" GATE VALVE OR EQUIVALENT
120 BBL STEEL PIT TANK
6.00'
4" GRAVEL - OPTIONAL (NOTE: TANK SUPPORT BEAMS WILL SIT ON THE LINER WITH OUT OPTIONAL GRAVEL)
4" SAND BEDDING FOR LINER (95 % STANDARD COMPACTION)
BASE
(S6x12.5) BEAM 12'x6"x3.3"
APPROVED LINER BETWEEN SAND BEDDING AND OPTIONAL GRAVEL (BOTTOM ONLY)
PROFILE VIEW
NOTE
DRAFTED PER XTO DESIGN.
HIGH LEVEL SHUT OFF WILL BE SET AT 28" BENEATH TOP OF TANK (AT 73.95 BBL @ SHUT OFF).
OUTER EDGE OF LINER WILL BE LEFT OPEN AND UNOBSTRUCTED TO ALLOW FOR VISUAL INSPECTION OF LINER FOR EVIDENCE OF SPILLS.
ADJUST DIMENSIONS AS NEED TO FIELD FIT TANK IF DIFFERENT THAN SHOWN, IF REQUIRED.
OWNER / OPERATOR:
XTO ENERGY
XTO ENERGY
TYPICAL DESIGN
120 BBL PIT TANK
CONTAINMENT
XTO PIT TANK
AS SHOWN

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,

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.

MONTHLY BELOW GRADE TANK INSPECTION FORM

Well Name: _____ **API No.:** _____

Legals **Sec:** _____ **Township:** _____ **Range:** _____

XTO Inspector's Name	Inspection Date	Inspection Time	Any visible liner tears (Y/N)	Any visible signs of tank overflows (Y/N)	Collection of surface run on (Y/N)	Visible layer of oil (Y/N)	Any visible signs of a tank leak (Y/N)	Freeboard Est. (ft)

Notes: Provide Detailed Description: _____

Misc:

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

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.

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.

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District IV
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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 96434

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 96434
	Action Type: [C-144] Legacy Below Grade Tank Plan (C-144LB)

QUESTIONS

Facility and Ground Water *Please answer as many of these questions as possible in this group. More information will help us identify the appropriate associations in the system.*	
Facility or Site Name	MADDOX GAS COM B 1
Facility ID (f#), if known	*Not answered.*
Facility Type	Below Grade Tank - (BGT)
Well Name, include well number	MADDOX GAS COM B 1
Well API, if associated with a well	30-045-07782
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	No
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 (continued)

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QUESTIONS

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

Signs	
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.)	
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	
Justifications and/or demonstrations ofequivalency 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:***	
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 (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	*Not answered.*
USGS	*Not answered.*
Data obtained from nearby wells	True

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	11/26/2008

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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

☑	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.
☑	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

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CONDITIONS

Created By	Condition	Condition Date
jburdine	None	8/3/2022