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 1220 S. St. Francis Dr., Santa Fe, NM 87505

Volume: <u>120</u>

Liner type: Thickness _

Tank Construction material:

State of New Mexico **Energy Minerals and Natural Resources** Department Oil Conservation Division 1220 South St. Francis Dr.

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

Santa Fe, NM 87505

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application
Type of action: Existing BGT Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method 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
t. Operator: XTO Energy, Inc. OGRID #: 5380
Address: #382 County Road 3100, Aztec, NM 87410
Facility or well name:LA PLATA 9 #2
API Number: 30-045-31630 OCD Permit Number:
U/L or Qtr/Qtr _K Section 09 Township 31N Range 13W County: San Juan
Center of Proposed Design: Latitude <u>36.91462</u> Longitude <u>108.21238</u> 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: Thicknessmil ☐ 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: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other

Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other Visible sidewalls, vaulted, automatic high-level shut off, no liner

_bbl Type of fluid: _____ Produced Water

☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

mil HDPE PVC Other

Liner Seams: Welded Factory Other

Below-grade tank: Subsection I of 19.15.17.11 NMAC

Steel

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, institution or church)	hospital,
☐ 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:	<u>-</u>
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.	office for
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 accept	
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a	
Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry	
above-grade tanks associated with a closed-loop system.	□ v ⊠ v.
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).	Yes 🛛 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.	☐ Yes 🛛 No
(Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	□ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No
(Applies to permanent pits)	⊠ NA
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
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.	☐ Yes ⊠ 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	☐ Yes ☑ No
adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	
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.	□ Vac □ No
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ⊠ No
Within an unstable area.	☐ Yes ☒ No
 Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	
Within a 100-year floodplain.	☐ Yes ⊠ No
- FEMA map	

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist Instructions: Each of the following items must be attached to the application. Please indicate, by a cheattached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsequence Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (5) Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.15 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 19.15.17.13 NMAC	ection B of 19.15.17.9 NMAC 2) of Subsection B of 19.15.17.9 NMAC 0 NMAC
Previously Approved Design (attach copy of design) API Number: or	Permit Number:
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 cheattached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Parag Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.11 NMAC Design 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 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: Previously Approved Operating and Maintenance Plan API Number: Previously Approved Operating and Previously Approved Operating API Number: Previously Approved Operating API Number: Previously API Number: Previously API Number: Previously API	raph (3) of Subsection B of 19.15.17.9 equirements of 19.15.17.10 NMAC uirements of Subsection C of 19.15.17.9 NMAC
	(Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)	
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 attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.1 Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.1 Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMA Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19 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 19.15.17.1 Nuisance or Hazardous Odors, including H ₂ S, 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	9 NMAC 0 NMAC C 17.11 NMAC .15.17.11 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-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	grade Tank
Alternative Closure Method (Exceptions must be submitted to the Santa Fo	Environmental Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of 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 ☐ 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 I of 19.15.17.13 NMAC ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	o F of 19.15.17.13 NMAC ion H of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground S Instructions: Please indentify the facility or facilities for the disposal of liquids, d facilities are required.	Steel Tanks or Haul-off Bins Only: (19.15.17.13.1 rilling fluids and drill cuttings. Use attachment if	D NMAC) more than two						
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 occ Yes (If yes, please provide the information below) No								
Required for impacted areas which will not be used for future service and operation Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection I Site Reclamation Plan - based upon the appropriate requirements of Subsection	requirements of Subsection H of 19.15.17.13 NMA(of 19.15.17.13 NMAC	c						
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 c provided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for	administrative approval from the appropriate dist. Bureau office for consideration of approval. Justi	rict office or may be						
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						
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						
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 sign lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	ificant watercourse or lakebed, sinkhole, or playa	Yes No						
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellite	in existence at the time of initial application. 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								
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approva	_	☐ 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 Society; Topographic map 	& Mineral Resources; USGS; NM Geological	☐ Yes ☐ No						
Within a 100-year floodplain FEMA map		☐ Yes ☐ No						
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Siting Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate of a drying particle Plan - based upon the appropriate requirements of 19.15. Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Siting Disposal Facility Name and Permit Number (for liquids, drilling fluids and drilling Soil Cover Design - based upon the appropriate requirements of Subsection Hare-vegetation Plan - based upon the appropriate requirements of Subsection I	irements of 19.15.17.10 NMAC Subsection F of 19.15.17.13 NMAC propriate requirements of 19.15.17.11 NMAC d) - based upon the appropriate requirements of 19.1 17.13 NMAC irements of Subsection F of 19.15.17.13 NMAC subsection F of 19.15.17.13 NMAC ill cuttings or in case on-site closure standards cannot of 19.15.17.13 NMAC of 19.15.17.13 NMAC	15.17.11 NMAC						

Operator Application Certification:
1 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
./. 0
Signature: Date: 11/21/08_
e-mail address: kim_champlin@xtoenergy.com Telephone: (505) 333-3100
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: 10/14/15 Title: ENVIRONMENTAL ENGINEER OCD Permit Number:
Title: CIVVIROIVIAL ENGINEER OCD Permit Number:
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:
12. 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
214. 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
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:

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Azzec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

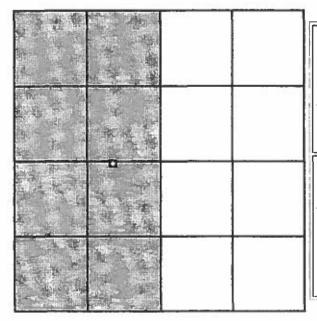
State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-31630	Pool Name BASIN FRUITLAND COAL (GAS)			
Property Code 24119	Property Name La Plata 9	Well No. 002		
OGRID No. 22521	Operator Name TEXAKOMA OIL & GAS CORP	Elevation 5870		

Surface And Bottom Hole Location

UL or Lot K	Section 9	Township 31N	Range 13W	Lot Idn	Feet From 2605	N/S Line S	Feet From 1770	E/W Line W	County San Juan
Dedicated Acres 320		Joint o	r Infill	Consoli	dation Code		Order 1	No.	



OPERATOR CERTIFICATION

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

Electronically Signed By: Tom Sprinkle

Title: Drilling Manager
Date: 04/15/2003

SURVEYOR CERTIFICATION

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 belief.

Surveyed By: Gerald Huddleston Date of Survey: 04/14/2003 Certificate Number: 6844

			Clie	nt:	XTO Energy		
A Lodestar Servic	ee Inc	Pit Permit	Proje		Pit Permits		
PO Box 4465, Duran	*	Siting Criteria	Revis		11/4/2008		
Г 0 вох 4403, вшав	go, CU 013UZ	Information Shee		Prepared by: Daniel Newman			
V				- , . ,			
API#:		3004531630	USPL	SS:	T31N,R13W,09K		
Name:		LA PLATA 9 #2	Lat/Lo	ng:	36.91462 / -108.21238		
Depth to groundwater:	bet	ween 50' and 100'	Geolo formati	_	Kirtland and Fruitland Formations		
Distance to closest continuously flowing watercourse:	1.84 mil	es west of the La Plata River					
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	3,810 ft	east of Barker Arroyo					
			Soil Ty	pe:	Entisols		
Permanent residence, school, hospital, institution or church within 300'		No					
			Ann Precipitati		8.08 inches average		
Domestic fresh water well or spring within 500'		No	Precipitat Not		no significant precipatation events		
Any other fresh water well or spring within 1000'		No					
Within incorporated municipal boundaries		No	Attach Documer				
Within defined municipal fresh water well field	Within defined municipal fresh water				Topo map, ground water data map, ariel photo, mines and quarries map, FEMA map		
Wetland within 500'		No	Mining Activi	ity:	No		
and the same of th							
Within unstable area	-	No					
Within 100 year flood plain		Zone X					
Additional Notes:							

LA PLATA 9 #2 Below Ground 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 below ground tank location will be located in the northwest corner of the San Juan Basin, where the Hogback monocline ends and the topographically flatter sandstones and shales of the Nacimiento/Animas Formations are exposed. The stratigraphic section reflects the Late Cretaceous transition of shallow marine depositional environment to Tertiary terrestrial fluvial depositional environment.

Major stratigraphic units, in ascending order, are the Ojo Alamo Sandstone, the Nacimiento and Animas Formations and the San Jose Formation (Brister and Hoffman, 2002). Also, deposits of Quaternary alluvial and aeolian sands occur prominently near the surface, 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 Nacimiento Formation lies at the surface and grades into the Animas Formation to the west. 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 La Plata River, which is a tributary of the San Juan River.

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).

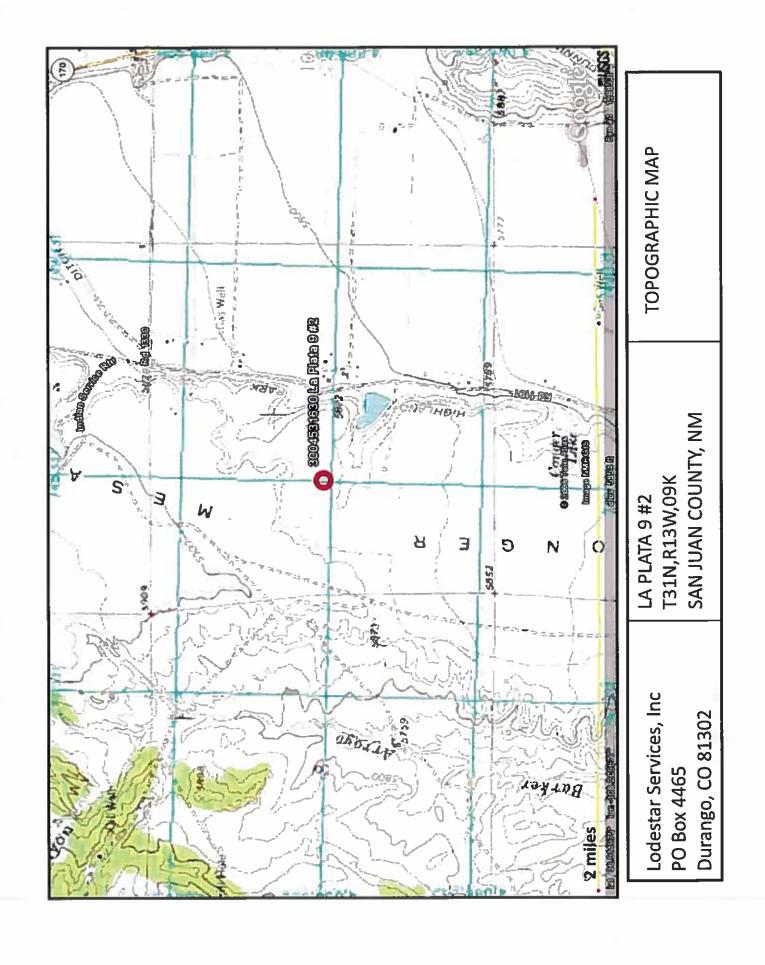
Site Specific Hydrogeology

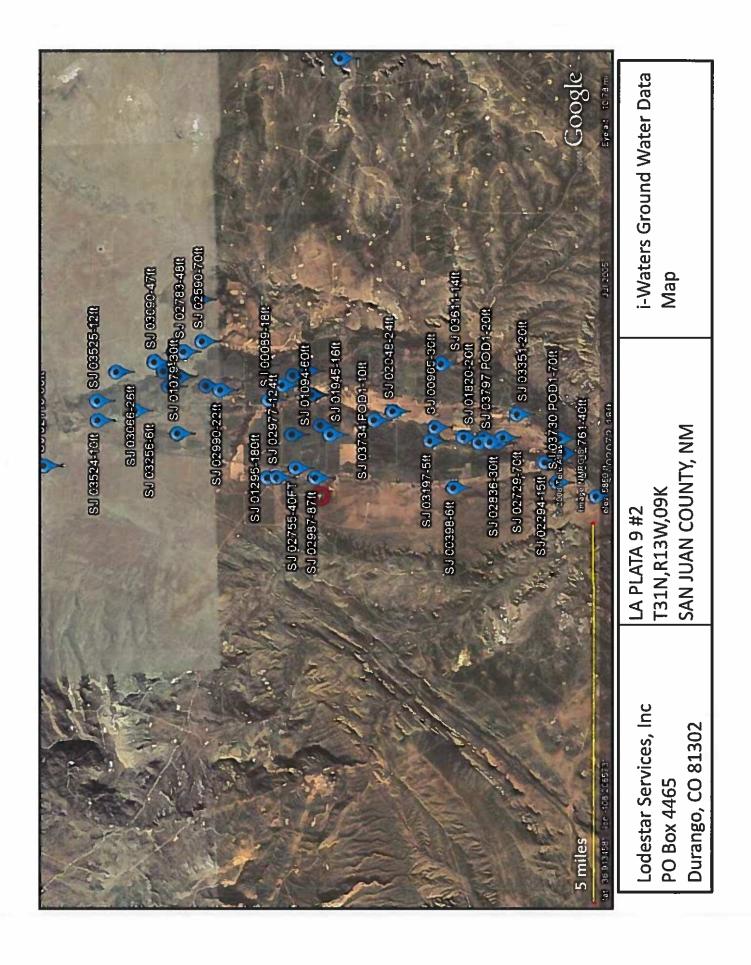
Depth to groundwater is estimated to be between 50 and 100 feet. This estimation is based on data from Stone and others (1983), the USGS Groundwater Atlas of the United States and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography and proximity to surface hydrologic features are also taken into consideration.

Local aquifers include sandstones within the Nacimiento and Animas Formations, which range from 0 to 1000 feet deep in this area (Stone et al., 1983). This depth range covers an area over 20 miles wide and depth decreases towards the margin of the San Juan Basin, where sandstones outcrop at the surface. The site in question is located on a slope approximately 5 miles away from outcropping sandstones. The slope is composed of shale and alluvium which, taken together, are expected to be at least 50 feet thick.

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. Wells located within the area contain groundwater at depths ranging from 6 to 180 feet. The site in question is located within Barker Arroyo at an elevation of approximately 5892 feet. The closest well to the proposed site sits at an elevation of approximately 5880 feet at a distance of approximately 832 feet to the east. This site puts groundwater at a distance of 124 feet below the ground surface.

Exposures of shale at the surface and within channel cuts of arroyos suggest groundwater is restricted to deeper sandstone units. However, proximity of the site to the La Plata River should also be considered. Groundwater data recorded from wells drilled with the immediate vicinity of the proposed site put groundwater depth at less than 50 feet. An elevation difference of approximately 10 feet exists between this well and the proposed site. Therefore, depth to groundwater is estimated to between 50 and 100 feet.





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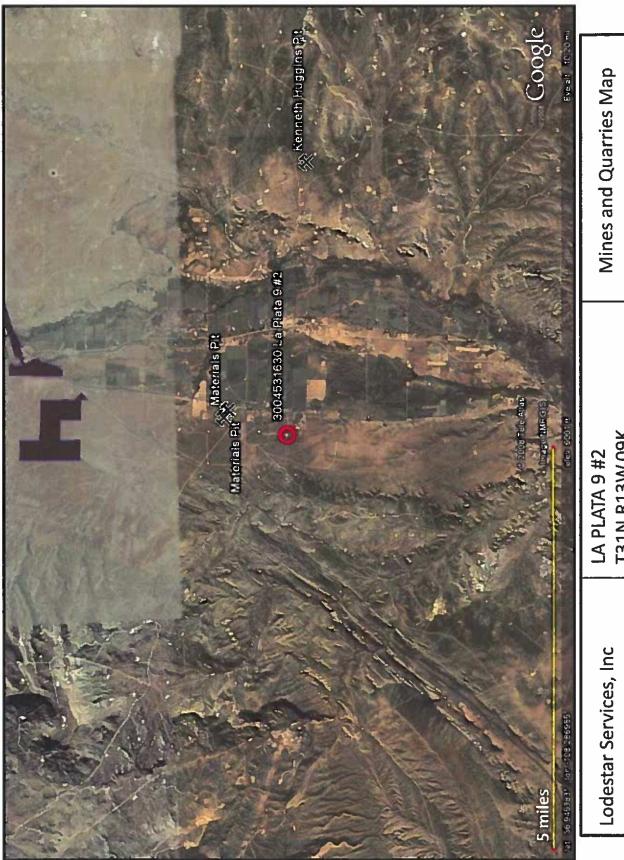
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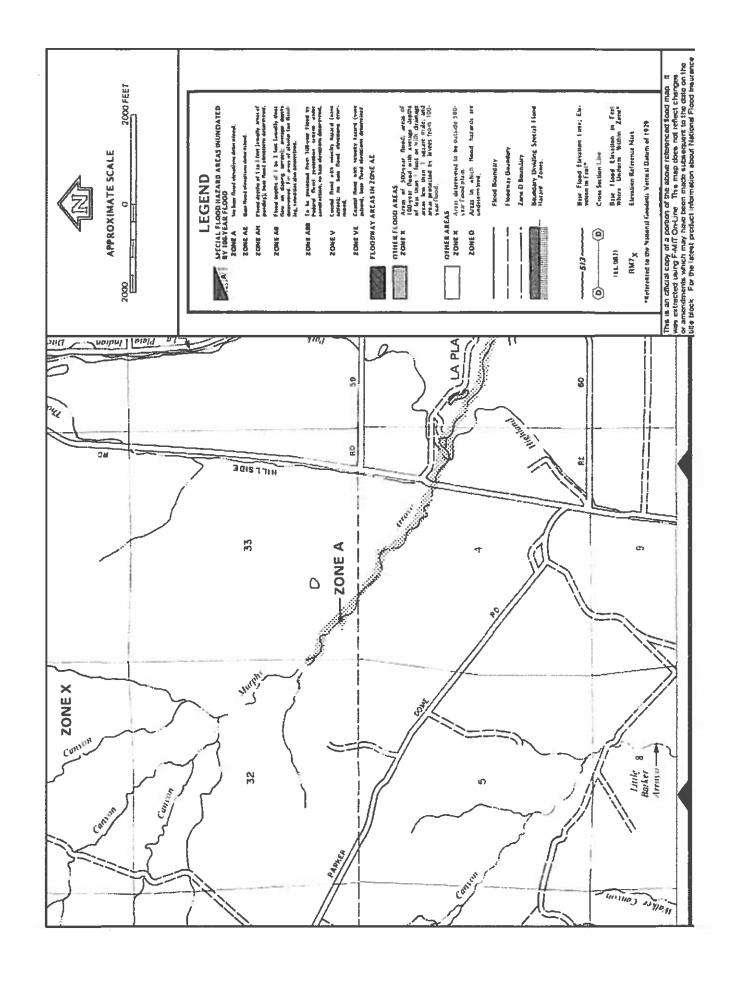
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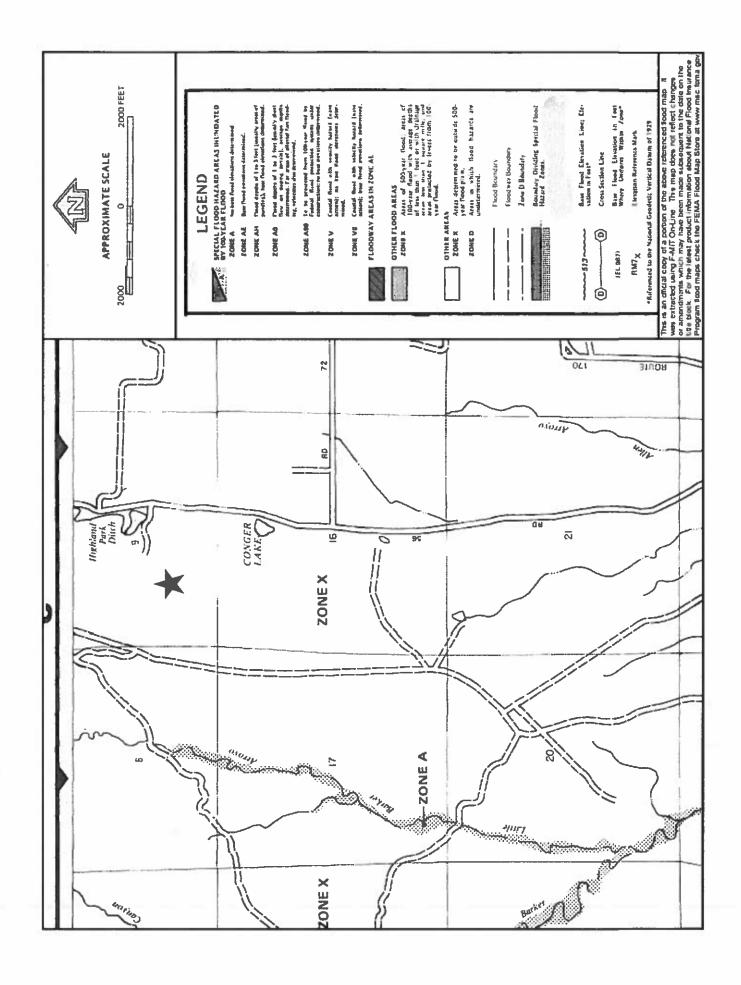
LA PLATA 9 #2 T31N,R13W,09K SAN JUAN COUNTY, NM



Lodestar Services, Inc PO Box 4465 Durango, CO 81302

LA PLATA 9 #2 T31N,R13W,09K SAN JUAN COUNTY, NM





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.

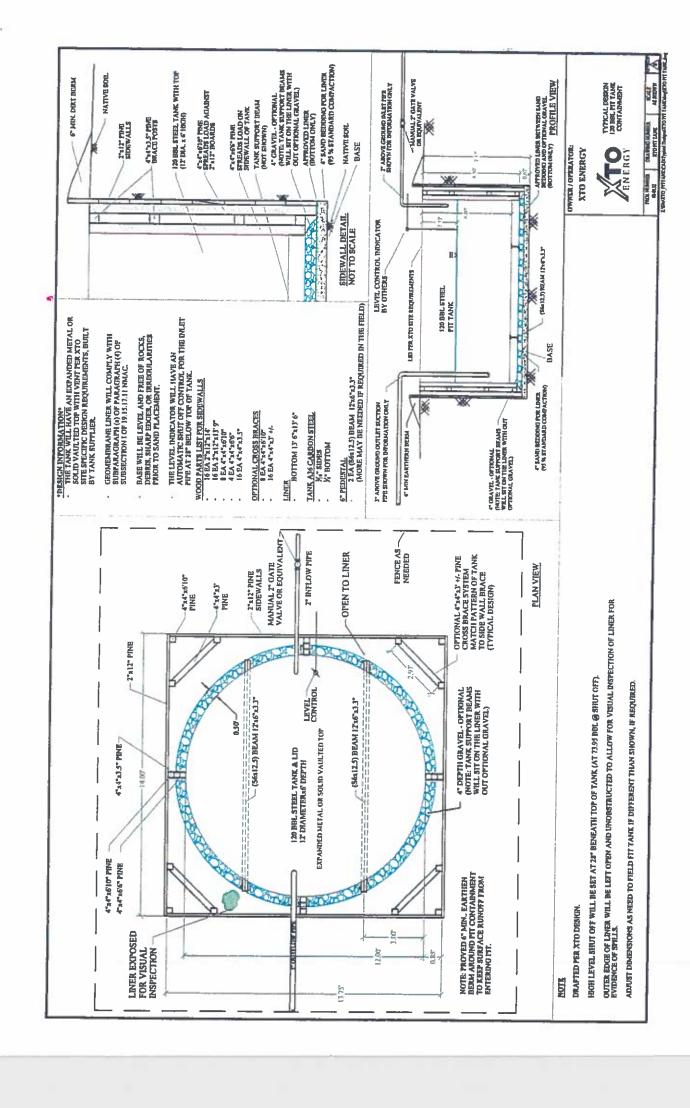
General Plan

- 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.
- 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 '4" 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).

- 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).
- 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).
- 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.
- 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.
- 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.

		MONTH	ILY BELO	MONTHLY BELOW GRADE TANK INSPECTION FORM	NSPECTIC	N FORM		
Well Name:	$ \mathcal{A} = 1$				API No.:			
Legals	Sec:		Township:		Range:			
XTO Inspector's	Inspection	Inspection	Any visible liner	Anv visible signs of	Collection of	Visible laver	Any weible cions	100 CO
Name	Date	Time	tears (Y/N)	tank overflows (Y/N)	run on (Y/N)	of oil (Y/N)	of a tank leak (Y/N)	Est. (ft)
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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

- 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.
- 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.
- 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.

- 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.

From: Lowe, Leonard, EMNRD

To: "Hixon, Logan"; Smith, Cory, EMNRD

Cc: McDaniel, James; Hoekstra, Kurt; Naegele, Otto; Farnsworth, Rex

 Subject:
 APPROVEDC-144_ 2015-10-8 Closure Plans

 Date:
 Tuesday, October 20, 2015 2:26:00 PM

Importance: High

Mr. Logan Hixon,

OCD approves the BGT closure via C-144 for the following:

The C-144 for the stated well site could not be found. XTO will need to submit a C-144 to the Aztec OCD office to process this BGT.

-API: 30-045-23566

Well Name: Hare Gas Com C 1E

The volume units in red are the C-144's that were found and processed. XTO requested a different volume, those could not be found.

API # 30-045-06258

Well Name: CA McAdams B 2

Volume: 21 BBL

API # 30-045-23890 **Well Name:** Federal A 3E

Volume: *120 BBL*

API # 30-045-23908 **Well Name:** Fee 3A **Volume:** 120 BBL

API # 30-045-30088

Well Name: Johnson Gas Com D 2

Volume: 21 BBL

API # 30-045-31630 **Well Name:** *La Plata* 9-2

Volume: 120 BBL

API # 30-045-21247 **Well Name:** Canyon 1 **Volume:** 120 BBL

API # 30-045-21393 **Well Name:** Canyon 11 **Volume:** 120 BBL **API** # 30-045-22047 **Well Name:** Canyon 19 **Volume:** 120 BBL

API # 30-045-29334 **Well Name:** Canyon 11E

Volume: 95 BBL

API # 30-045-29270 **Well Name:** Canyon 12E

Volume: 120 BBL

API # 30-045-29212 **Well Name:** Canyon 19E

Volume: 120 BBL

API # 30-045-29710 **Well Name:** Canyon 7E **Volume:** 120 BBL

API # 30-045-29333 **Well Name:** Canyon 9E **Volume:** 120 BBL

API # 30-045-25508

Well Name: Carson Gas Com 1E

Volume: 120 BBL

Your approved C-144 is (are) located in the OCD imaging link below:

Open link below:

http://ocdimage.emnrd.state.nm.us/imaging/default.aspx.

Leonard Lowe

Environmental Engineer

[Environmental Bureau]

Oil Conservation Division

Energy Minerals and Natural Resources Department

1220 South St. Frances

Santa Fe, New Mexico 87004

Office: 505-476-3492 Fax: 505-476-3462

E-mail: leonard.lowe@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

From: Hixon, Logan [mailto:Logan_Hixon@xtoenergy.com]

Sent: Thursday, October 08, 2015 1:29 PM

To: Lowe, Leonard, EMNRD < Leonard.Lowe@state.nm.us>

Cc: McDaniel, James <James_McDaniel@xtoenergy.com>; Hoekstra, Kurt

<Kurt_Hoekstra@xtoenergy.com>; Naegele, Otto <Otto_Naegele@xtoenergy.com>; Farnsworth,

Rex <Rex_Farnsworth@xtoenergy.com>

Subject: 2015-10-8 Request for Approved Closure Plans Only

Mr. Lowe

We are requesting an approved below grade tank closure plans only for the following sites:

Submitted: Our records show submittal of November 25, 2008 for the following sites:

-API: 30-045-06258

Well Name: CA McAdams B 2, located in Section 28 (E), Township 27N, Range

10W, San Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-23890

Well Name: Federal A 3E, located in Section 26 (P), Township 30N, Range 13W,

San Juan County, New Mexico

Volume: 45 BBL

-API: 30-045-23908

Well Name: Fee 3A, located in Section 3(K), Township 30N, Range 11W, San

Juan County, New Mexico

Volume: 95 BBL

-API: 30-045-23566 (COULD NOT BE FOUND)

Well Name: Hare Gas Com C 1E, located in Section 25(F), Township 29N, Range

10W, San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-30088

Well Name: Johnson Gas Com D 2, located in Section 15(G), Township 30N,

Range 12W, San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-31630

Well Name: La Plata 9-2, located in Section 9(K), Township 31N, Range 13W,

San Juan County, New Mexico

Volume: 120 BBL

Submitted: Our records show submittal of December 5, 2008 for the following

sites:

-API: 30-045-21247

Well Name: Canyon 1, located in Section 10(O), Township 25N, Range 11W, San

Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-21393

Well Name: Canyon 11, located in Section 11(G), Township 25N, Range 11W, San

Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-22047

Well Name: Canyon 19, located in Section 2 (P), Township 25N, Range 11W, San

Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-29334

Well Name: Canyon 11E, located in Section 11 (O), Township 25N, Range 11W,

San Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-29270

Well Name: Canyon 12E, located in Section 13(E), Township 25N, Range 11W,

San Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-29212

Well Name: Canyon 19E, located in Section 2 (K), Township 25N, Range 11W,

San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-29710

Well Name: Canyon 7E, located in Section 15 (G), Township 25N, Range 11W,

San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-29333

Well Name: Canyon 9E, located in Section 1 (F), Township 25N, Range 11W, San

Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-25508

Well Name: Carson Gas Com 1E, located in Section 32 (F), Township 30N, Range

12W, San Juan County, New Mexico

Volume: 120 BBL

Thank you for the help.

Thank You!

XTO ENERGY INC., an ExxonMobil subsidiary

Logan Hixon | 72 Suttle Street, Suite J | Durango, CO 81303 | ph: 970-247-7708 | Cell: 505-386-8018

Logan Hixon | 382 CR 3100 | Aztec, NM 87410 | ph: 505-333-3100 | Logan Hixon@xtoenergy.com

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