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

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. 25 Pin 1 11

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 methodExisting BGTClosure of a pit, closed-loop system, below-grade tank, or proposed alternative methodModification 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	OGRI	D #·	5380	
Address: #382 County Road 3100 Aztec NM 87410	0011	<i>D n</i>	<u></u>	
Facility or well name: UTE INDIAN A # 37				
API Number: 30-045-31689	OCD Permit Number:			
U/L or Otr/Otr J Section 34 Township 32N	Range 14W (County:	San Juan	
Center of Proposed Design: Latitude 36.94252	Longitude 108.293	33	NAD:	1927 🖾 1983
Surface Owner: 🗌 Federal 🗌 State 🗌 Private 🛛 Tribal Trust or Indian	Allotment	<u></u>		
1				
<u>Pit</u>: Subsection F or G of 19.15.17.11 NMAC				
Temporary: 🔲 Drilling 🔲 Workover				
Permanent Emergency Cavitation P&A				
Lined Unlined Liner type: Thicknessmil ULD	DPE 🗌 HDPE 🗌 PVC	Other		
String-Reinforced				
Liner Seams: 🗌 Welded 🗋 Factory 🗌 Other	Volume:	bbl Dimer	sions: 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 D intent)	rilling (Applies to activit	ies which requi	re prior approval of a p	ermit or notice of
Drying Pad Above Ground Steel Tanks Haul-off Bins	Other			
Lined Unlined Liner type: Thickness mil	LLDPE 🗌 HDPE 🔲 P	VC Other		
Liner Seams: Welded Factory Other				
4.				· · · · · · · · · · · · · · · · · · ·
Below-grade tank: Subsection I of 19.15.17.11 NMAC				
Volume: <u>120</u> bbl Type of fluid: <u>Produced</u>	Water			
Tank Construction material: <u>Steel</u>				
Secondary containment with leak detection Visible sidewalls, lin	ner, 6-inch lift and autom	atic overflow s	hut-off	
\Box Visible sidewalls and liner \Box Visible sidewalls only \boxtimes Other $_$	Visible sidewalls, vaulted	, automatic hig	h-level shut off, no line	<u></u>
Liner type: Thicknessmil	Other			
5.				To make
Alternative Method:				
Submittal of an exception request is required. Exceptions must be submit	itted to the Santa Fe Envi	ironmental Bure	eau office for considera	tion of approval.

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

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)

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

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 accematerial 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.	ptable source opriate district approval. ving pads or
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. <u>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist</u> : 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. <u>Closed-loop Systems Permit Application Attachment Checklist</u> : 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 Glosure Plan (Plane complete Denos 14 through 18 if emplicable). head upon the appropriate appr
and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
<u>Permanent Pits Permit Application Checklist</u>: 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 Erector and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Nuisance or Hazardous Odors, including H_2S , Prevention 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. <u>Proposed Closure</u> : 19.15.17.13 NMAC <i>Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.</i>
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System
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)
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15. <u>Waste Excavation and Removal Closure Plan Checklist</u> : (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 E of 19.15.17.13 NMAC
Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
 Son Backtin 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 Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if	D NMAC) more than two					
Jacuities are required. Disposal Facility Name:						
Disposal Facility Name:						
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that <i>will not</i> 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 	AC					
^{17.} <u>Siting Criteria (regarding on-site closure methods only</u>): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sou provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate dis considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Just demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	arce material are trict office or may be tifications and/or					
 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 p 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 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.13 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - 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 cant 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 	lan. Please indicate, .15.17.11 NMAC not be achieved)					

Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Operator Application Certification:	
I hereby certify that the information submitted with this application is true, accura	ate and complete to the best of my knowledge and belief.
Name (Print): Kim Champlin	Title: <u>Environmental Representative</u>
Signature: Kim Champlen	Date: 11-24.08
e-mail address: <u>kim_champlin@xtoenergy.com</u>	Telephone:(505) 333-3100
20. OCD Approvals	an (anly) OCD Conditions (see attachment)
OCD Approval. The Permit Application (including closure plan) At Closure Pr	an (only) \Box OCD conditions (see attachment)
OCD Representative Signature:	Approval Date: 09/20/19
Title: CN VIRONMENTAL ENGINEER	OCD Permit Number:
21. <u>Closure Report (required within 60 days of closure completion)</u> : Subsection Instructions: Operators are required to obtain an approved closure plan prior to The closure report is required to be submitted to the division within 60 days of th section of the form until an approved closure plan has been obtained and the closure of the form until an approved closure plan has been obtained and the closure closure plan has been obtained and the closure plan has been been been been been been been bee	K of 19.15.17.13 NMAC o implementing any closure activities and submitting the closure report. he completion of the closure activities. Please do not complete this osure activities have been completed.
22. Closure Method: Waste Excavation and Removal On-Site Closure Method Alterna If different from approved plan, please explain.	tive Closure Method 🔲 Waste Removal (Closed-loop systems only)
^{23.} <u>Closure Report Regarding Waste Removal Closure For Closed-loop Systems</u> <i>Instructions: Please indentify the facility or facilities for where the liquids, drill</i> <i>two facilities were utilized.</i>	That Utilize Above Ground Steel Tanks or Haul-off Bins Only: ling fluids and drill cuttings were disposed. Use attachment if more than
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 Yes (If yes, please demonstrate compliance to the items below)	in areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future service and operation Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ons:
24. Closure Report Attachment Checklist: Instructions: Each of the following its	ame must be attached to the closure report Diagon indicate by a check
Closure Report Attachment Checklist: Instructions: Each of the following item 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: LatitudeLongitude	ude NAD: 1927 1983
25.	
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure rebelief. I also certify that the closure complies with all applicable closure requirements.	eport is true, accurate and complete to the best of my knowledge and tents and conditions specified in the approved closure plan.
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:



		Client:	XTO Energy
Lodestar Service	es, Inc.	Project:	Pit Permits
PO Box 4465, Durang	10, CO 81302 Siting Criteria	Revised:	9/26/2008
	Information She	et Prepared by:	Daniel Newman
·		1	
API#:	3004531689	USPLSS:	T32N,R14W,34J
Name:	UTE INDIAN A#37	Lat/Long:	36.9425, -108.29333
Depth to groundwater:	< 50'	Geologic formation:	Menefee Formation
Distance to closest continuously flowing watercourse:	5.8 miles E to the La Plata River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	978' NE to Barker Arroyo		
		Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'	No		
	· · · · · · · · · · · · · · · · · · ·	l Annual	
		Precipitation:	8.21'' Farmington FAA Airport
Domestic fresh water well or spring within 500'	Νο	Precipitation Notes:	3.82" largest daily rainfall on record
Any other fresh water well or spring within 1000'	No		
Within incorporated municipal boundaries	No	Attached Documents:	
Within defined municipal fresh water well field	No		Topo map, ground water data map, ariel photo, mines and quarries map,
Wetland within 500'	No	Mining Activity:	No
Within unstable area	No]	
Within 100 year flood plain	No FEMA data availble		
Additional Notes:		•	

÷

Ute Indians A#37 Below Grade Tank Siting Criteria and Closure Plan

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. Thicker sequences common throughout the central basin begin to pinch out and older units of Cretaceous Age are exposed, specifically components of the Late Cretaceous Mesaverde Group (Point Lookout Sandstone, Menefee Formation and Cliff House Sandstone; (Brister and Hoffman, 2002). The resistant Point Lookout and Cliff House solution are exposed at lower, more eroded elevations. The stratigraphic section reflects deposition in a transgressive marine to coastal plain environment and consists of gray, brownish and tank sandstone interbedded with dark, carbonaceous shales and coal beds. 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). Within the Menefee Formation, thinner confining units that consist of shale, as well as coal and thick sandstone beds, are present. In general, the water from Cretaceous aquifers is minimal (less than 5 gpm), although moderate quantities (5 - 25 gpm) may be supplied from aquifers within the Menefee Formation (Stone et al., 1983). Aquifer depths range from very shallow depths to over 6000 feet below ground surface. 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 rockland, which are basically little to no soils that do not show any profile development. Soils that are present are 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 the soils that cover the area and prohibits effective recharge to the underlying aquifers.

Dry and arid weather further prohibit active recharge. 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 Menefee Formation, which range from shallow depths to over 6000 feet deep in this area (Stone et al., 1983). The site in question is located on the gently sloping western flank of Barker Arroyo. It is approximately 80 feet higher in elevation than the floor of Barker Arroyo. The exposed shale of the Menefee Formation and alluvium make up the composition of the slope. These are expected to be at least 50' thick beneath the proposed site. The lower part of Barker Arroyo, where groundwater may be shallow, is over 125' lower in elevation.

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 attached. Pinpoints show locations of wells and the labels for each pinpoint indicate depth to groundwater in feet. Wells are clustered near populated areas along the La Plata River east of the proposed site. These sites contain shallow groundwater, but topographic and hydrographic conditions are not representative of the site in question. Many data points exist east of the site and indicate groundwater at 10-180 feet in depth. These groundwater wells are located approximately 5.7 miles to the east and are approximately 150 feet lower in elevation than the proposed site, suggesting groundwater is greater than 100 feet deep at the proposed location.





New Mexico Office of the State Engineer POD Reports and Downloads WATER COLUMN REPORT 09/16/2008

(qu	arter	s are	2 1=	NW	2=	NB	3=5W 4=51			Benth	Denth	Pator	11-	Feat
ron thenhow (qu	arter	B are	e Di	gge	281	- 00	Smalles	-) 	v	Hell	Water	Column	/11	Teer)
CT 01107 CTW226675	221	124	300	P 2	P.	P A	20116	*	1	24	Water	15		
SJ 01187 CLW220073	320	TON	10	3	*	4				29	9	10		
SJ 01187	3ZN	139	10	3	4	4				24	3	12		
SJ 01353	3ZN	130	10	4	3						38	20		
SJ 01439	32N	13M	10	4	3					45	25	20		
<u>SJ 02068</u>	32N	13W	15	Z	-					45	Te	29		
SJ 01549	32N	13W	15	2	1					47	28	13		
SJ 02985	32N	13W	15	2	1	2				47	25	22		
SJ 02865	32N	13W	15	2	3	2				44	29	15		
SJ 02558	32N	13W	15	3	2	4				41	23	18		
SJ 02934	32N	13W	15	4	1	1				34	18	16		
SJ 02890	32N	13W	15	4	1	2				55	30	25		
SJ 02705	32N	13W	22	1	4	2				25	12	13		
SJ 02704	32N	13W	22	1	4	2				25	12	13		
SJ 03111	32N	13W	22	2	1	4				19	6	13		
SJ 02848	32N	13W	22	2	4	3				608	50	558		
SJ 00922	32N	13W	22	3	1	4				27	12	15		
SJ 00906 X	32N	13W	22	3	4					86	26	60		
SJ 02918	32N	13W	22	3	4	2				51	30	21		
SJ 00736	32N	13W	22	4	1					40	15	25		
SJ 00339	32N	13W	22	4	1	1				50	12	38		
SJ 00340	32N	13W	22	4	1	3				50	12	38		
SJ 02847	32N	13W	22	4	4	1				1255		1255		
SJ 03524	32N	13W	27	3	4	1				33	10	23		
SJ 03525	32N	13W	27	4	3	1				71	12	59		
SJ 03256	32N	13W	34	1	4	2				21	6	15		
ST 03066	32N	1.38	34	2	2	2				41	28	13		
ST 01079	32N	138	34	3	3	-				100	30	70		
SJ 01943	32N	13W	34	4						8	3	5		
ST 03635	32N	135	34	4	2	4				44	35	9		
SJ 02577	32N	13W	34	4	4	-				30	15	15		
SJ 03090	32N	131	35	3	1	1				59	47	12		
ST 02589	32N	131	35	3	3	2				60	35	25		
SJ 02783	32N	13W	35	3	3	4				62	48	14		





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

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

General Plan

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

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

.

bottom will be elevated a minimum of 6" above the underlying ground surface and the belowgrade 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.



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.
 - XTO will inspect the below-grade tank monthly and maintain written records for five years. Monthly inspections will consist of documenting the following: (see attached template), Well Name
 - API # Sec., Twn., Rng. XTO Inspector's name Inspection date and time Visible tears in liner Visible signs of tank overflow Collection of surface run on Visible layer of oil Visible signs of tank leak Estimated freeboard
- 5. XTO will maintain adequate freeboard to prevent over topping of the below-grade tank. High level shut-off devices control the freeboard at an average of 28" beneath the top of the tank.
- 6. XTO will not discharge into or store any hazardous waste in any below-grade tank.
- 7. If a below-grade tank develops a leak, or if any penetration of a below-grade tank occurs below the liquids surface, XTO will remove all liquids above the damage or leak line within 48 hours,

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

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

					API No.:		· · · · · · · · · · · · · · · · · · ·	
Legals	Sec:		Township:		Range:			
XTO Inspector's	Inspection	Inspection	Any visible liner	Any visible signs of	Collection of	Visible laver	Any visible signs	
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.
						· · · · · · · · · · · · · · · · · · ·		
		· · · · · · · · · · · · · · · · · · ·						
				······································		······································		
Notes:	Provide De	tailed Descrip	otion:				L	
- -								
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

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

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

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

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

- 11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 12. A minimum of 4 feet of cover shall be achieved and the cover shall include 1 foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. Soil cover will be constructed to the site's existing grade and ponding of water and erosion of the cover material will be prevented with drainage control, natural drainages and silt traps where needed.
- 13. XTO will seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other divisionapproved 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
То:	<u>"Hoekstra, Kurt"</u>
Subject:	APPROVED Request for closure plan only Ute Indians A # 37
Date:	Thursday, March 20, 2014 3:40:00 PM
Attachments:	Approved UTE INDIANS A # 37 API 30-045-31689.pdf
Importance:	High

Mr. Hoekstra,

OCD Approves Closure of the Ute Indians A # 37 API # 30-045-31689 120 BBL BGT.

llowe

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 E-mail: leonard.lowe@state.nm.us Website: http://www.emnrd.state.nm.us/ocd/

From: Hoekstra, Kurt [mailto:Kurt_Hoekstra@xtoenergy.com]
Sent: Wednesday, March 05, 2014 2:39 PM
To: Lowe, Leonard, EMNRD
Subject: Request for closure plan only Ute Indians A # 37

Leonard Lowe,

Please accept this email as a request for approval of the closure plan only for the BGT at the Ute Indians A # 37 well site (API # 30-045-31689) located in Unit J, Section 34, Township 32N, Range 14W, Lat. 36.9425 Long -108.29333 San Juan County, New Mexico. Our records indicate the closure plan was submitted on 11-25-2008. This BGT will be closed due to the P & A of this location.

Thank You

Kurt Hoekstra EHS Coordinator XTO Energy 505-333-3202 Office 505-486-9543 Cell Kurt Hoekstra@xtoenergy.com