District I 1625 N District 1301 W	REGISTERED	State of New Mexico and Natural Resources	Form C-144 July 21, 2008 For temporary pits, closed-loop systems, and
District 1000 R District Iv 1220 S. St. Franc	vis Dr., Santa Fe, NM 87505	Vation Division 1220 South St. Francis Dr. VE Santa Fe, NM 87505 8 PM 4	MOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.
	Pit, Closed-	Loop System, Below-Grade T	ank, or
	Proposed Alternativ	re Method Permit or Closure P	lan Application
	Type of action: Existing BGT Closure of a pi Modification t Closure plan o below-grade tank, or proposed alter	, closed-loop system, below-grade tank, or it, closed-loop system, below-grade tank, o o an existing permit only submitted for an existing permitted or native method	proposed alternative method or proposed alternative method non-permitted pit, closed-loop system,
Instruc	ctions: Please submit one application (For	rm C-144) per individual pit, closed-loop system	m, below-grade tank or alternative request
Please be advised environment. Not	that approval of this request does not relieve or does approval relieve the operator of its resp	the operator of liability should operations result in consibility to comply with any other applicable go	pollution of surface water, ground water or the vernmental authority's rules, regulations or ordinances.
I. Operator: X	TO Energy, Inc.	OGRID #:	5380
Address:	#382 County Road 3100, Aztec, NM 8741	0	
Facility or well	1 name: WF FEDERAL 01 # 1		
API Number:	30-045-30660	OCD Permit Number:	
U/L or Otr/Otr	K Section 01 Town	ship 30N Range 14W Coun	ity: San Juan
Center of Prop	osed Design: Latitude 36 841011	Longitude 108 264197	NAD: 1927 X 1983
Surface Owner	r: M Federal II State II Private II Tribal	Trust or Indian Allotment	
Surface Owner			
2.	notion F on C of 10.15.17.11 NMAC		
Permanent	Emergency Cavitation P&A		
	Unlined Liner type: Thickness	_mil LLDPE HDPE PVC Ott	her
String-Rein	Iforced		
Liner Seams: [Welded Factory Other	Volume:bbl	Dimensions: Lx Wx D
3. Closed-loop Type of Operat intent) Drying Pad Lined U Liner Seams:	p System: Subsection H of 19.15.17.11 N tion: P&A Drilling a new well I Above Ground Steel Tanks Haul Jnlined Liner type: Thickness	NMAC Workover or Drilling (Applies to activities whith l-off Bins D Other	ch require prior approval of a permit or notice of Other
4. X Below-grad Volume: Tank Construct Secondary Visible sid Liner type: Th	de tank: Subsection I of 19.15.17.11 NM 120 bbl Type of fluid: bbl Type of fluid:	AC <u>Produced Water</u> ole sidewalls, liner, 6-inch lift and automatic ov V Other <u>Visible sidewalls, vaulted, autom</u> DPE PVC Other	erflow shut-off natic high-level shut off, no liner
5. <u>Alternative</u> Submittal of ar	e Method: n exception request is required. Exceptions	s must be submitted to the Santa Fe Environmen	ntal Bureau office for consideration 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

7.

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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

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 acception 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.	ptable source opriate district upproval. ing 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
 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.	Yes 🛛 No

- FEMA map

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
 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 19.15.17.12 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 Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC 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 19.15.17.11 NMAC 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 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration) Image: Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15. Waste Execution and Removal Closure Plan Checklist: (10.15.17.13 NMAC) Instructions: Each of the following items must be attached to the
Waste Excavation and Removal Closure Fian Cnecklist: (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.

1 11.

^{16.} Waste Removal Closure For Closed-loop Systems That Utilize Above Ground S Instructions: Please indentify the facility or facilities for the disposal of liquids, a	Steel Tanks or Haul-off Bins Only: (19.15.17.13. Irilling fluids and drill cuttings. Use attachment if n) NMAC) nore than two
facilities are required.		
Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:	Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities or Yes (If yes, please provide the information below) No	cur on or in areas that will not be used for future serv	vice and operations?
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 Site Reclamation Plan - based upon the appropriate requirements of Subsection	ns: requirements of Subsection H of 19.15.17.13 NMA (of 19.15.17.13 NMAC on G of 19.15.17.13 NMAC	c
^{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 oprovided 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	closure plan. Recommendations of acceptable sour e administrative approval from the appropriate disti Bureau office for consideration of approval. Justi for guidance.	ce material are rict office or may be fications 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 sign lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	nificant 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 watering purposes, or within 1000 horizontal feet of any other fresh water well or sp - NM Office of the State Engineer - iWATERS database; Visual inspection (than five households use for domestic or stock oring, in existence at the time of initial application. certification) of the proposed site	🗌 Yes 🗌 No
 Within incorporated municipal boundaries or within a defined municipal fresh wate adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approva 	r well field covered under a municipal ordinance al obtained from the municipality	🗌 Yes 🗌 No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visua	l 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
 18. 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 Construction/Design Plan of Burial Trench (if applicable) based upon the ap of the appropriate requirements of Protocols and Procedures - based upon the appropriate requirements of 19.15 Construction/Design Plan of Temporary Pit (for in-place burial of a drying protocols and Procedures - based upon the appropriate requirements of 19.15 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Dispagal Facility Name and Parmit Number (for liquide drilling fluide and defined applicable) - for the propriate requirements of Dispagal Facility Name and Parmit Number (for liquide drilling fluide and defined applicable) - for the product of the propriate requirements of Dispagal Facility Name and Parmit Number (for liquide drilling fluide and defined applicable) 	<i>e following items must be attached to the closure pla</i> nirements of 19.15.17.10 NMAC Subsection F of 19.15.17.13 NMAC propriate requirements of 19.15.17.11 NMAC ad) - based upon the appropriate requirements of 19. .17.13 NMAC nirements of Subsection F of 19.15.17.13 NMAC Subsection F of 19.15.17.13 NMAC	an. Please indicate, 15.17.11 NMAC

Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site c
 Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

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

Operator Application Certification:		
T DEFENV CERTIVIDAL THE INTOTITATION SUMMITTED WITH THIS ANOTATION.	is true, accurate and complete to the F	pest of my knowledge and belief
Thereby certify that the information submitted with this appreation	is true, accurate and complete to the t	sest of my knowledge and benef.
Name (Print): <u>Kim Champlin</u>	Title:	Environmental Representative
Signature: Kim Champlin	Date:	11-25-08
e-mail address: <u>kim_champlin@xtoenergy.com</u>	Telephone:	(505) 333-3100
OCD Approval: Permit Application (including closure plan) [Closure Plan (only) OCD Co	onditions (see attachment)
OCD Representative Signature:		Approval Date:
Title:	OCD Permit Number	
<u>Closure Report (required within 60 days of closure completion):</u> Instructions: Operators are required to obtain an approved closure. The closure report is required to be submitted to the division within section of the form until an approved closure plan has been obtain	Subsection K of 19.15.17.13 NMAG e plan prior to implementing any clo n 60 days of the completion of the clo ed and the closure activities have been Closure Comple	C sure activities and submitting the closure repor osure activities. Please do not complete this en completed. tion Date:
22. Closure Method: Waste Excavation and Removal On-Site Closure Method If different from approved plan, please explain.	Alternative Closure Method] Waste Removal (Closed-loop systems only)
two facilities were utilized. Disposal Facility Name: Disposal Facility Name: Were the closed-loop system operations and associated activities per	Disposal Facility Pern Disposal Facility Pern Tformed on or in areas that <i>will not</i> be	nit Number:
 Yes (If yes, please demonstrate compliance to the items below Required for impacted areas which will not be used for future servic Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation 	v) 🗌 No e and operations:	
Re-vegetation Application Rates and Seeding Technique		
Re-vegetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the 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-Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	e following items must be attached to	the closure report. Please indicate, by a check
Re-vegetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the 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-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	e following items must be attached to site closure)	the closure report. Please indicate, by a check NAD: 1927 1983
Re-vegetation Application Rates and Seeding Technique Closure Report Attachment Checklist: Instructions: Each of the 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- 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 Stere Cover Subject Subje	e following items must be attached to site closure) LongitudeLongitude attached to	the closure report. Please indicate, by a check NAD: 1927 1983
Re-vegetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the 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-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 25. Operator Closure Certification: I hereby certify that the information and attachments submitted with belief. I also certify that the closure complies with all applicable clo Name (Print):	e following items must be attached to	he closure report. Please indicate, by a check NAD: 1927 1983
Re-vegetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the 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-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 25. Operator Closure Certification: I hereby certify that the information and attachments submitted with belief. I also certify that the closure complies with all applicable clo Name (Print): Signature:	e following items must be attached to	hthe closure report. Please indicate, by a check NAD: 1927 1983 NAD: 1927 1983

State of New Mexico Energy. Minerals & Mining Resources Department

OL CONSERVATION DIVISION 2040 South Pacheco Santa Fe. NM 87505001 NPR 27 PH 3: 04

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT



A		Dit Damait	Client:	XTO Energy		
Lodestar Services	, Inc.	rit rermit	Project:	Pit Permits		
PD Box 4465, Daragen	CD 81302	Siting Criteria	Revised:	10/26/2008		
		Information Sheet	Prepared by:	Daniel Newman		
A DI#.		0004500000				
API#:	14 . IS	3004530660	05PL55:	130N,R14W,01K		
Name:	WF FEDERAL 01 #1		Lat/Long:	36.841011 / -108.264197		
Depth to groundwater:		>100'	Geologic formation:	Animas Formation		
Distance to closest continuously flowing watercourse:	2.26 mil	es west of the La Plata River				
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	wit	hin Coyne Arroyo				
			Soil Type:	Entisols		
Permanent residence, school, hospital, institution or church within 300'		No				
	North State	R	Annual Precipitation:	8.08 inches average		
Domestic fresh water well or spring within 500'		No	Precipitation Notes:	no significant precipatation events		
Any other fresh water well or spring within 1000'	wit	hin Coyne Arroyo				
Within incorporated			Attached			
municipal boundaries		No	Documents:			
Within defined municipal fresh water well field		No		Topo map, ground water data map, ariel photo, mines and quarries map, FEMA map		
Wetland within 500'	<u>.</u>	No	Mining Activity:	No		
Within unstable area		No				
		Station and the				
Within 100 year flood plain	5 - 19-1-	Zone X				
Additional Notes:						
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WF Federal #1 Below Ground Tank Hydrogeologic Report for Siting Criteria

General Geology and Hydrology

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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 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

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Depth to groundwater is estimated to be greater than 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 a few 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 9 to 140 feet. The site in question is located in Coyne Arroyo at an elevation of approximately 5745 feet. The closest well to the proposed site sits at an elevation of approximately 5639 feet, at a distance if approximately 1.74 miles to the east. This site puts groundwater at a distance of 30 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. However there is an elevation difference of approximately 100 feet between these wells and the proposed site. Therefore, depth to groundwater is estimated to be greater than 100 feet.



Lodestar Services, Inc PO Box 4465	WF FEDERAL 01 #1 T30N,R14W,01K	i-Waters Ground Water Data Map
1 EXPLORE-1-102ft SJ 00971 EXPLO SJ 00027 SJ 02165-25ft 96'50'30 85' N 108'15'45 61'W SJ 002265	DRE-2-131/t SJ 02674-2 SJ 00156-18/t Image NMRGIS Image © 2008 DigitalGlobe © 2008 Tele Allas elev 5724 itJ 03234-20/t	SJ 03272 Jul 2005, 73 SJ 01454-350ft SJ 02219 SJ 02219 SJ 02219 SJ 03361 SJ 02219 SJ 03361 SJ 02219 SJ 03361 SJ 02219 SJ 03293 SJ 03293 SJ 0121 Eye alt 17.26 mi
D1-12/t	RG 22431-45/t SJ 009	SJ 02247-375it SJ 02035-1 SJ 02247-375it SJ 02035-1 SJ 01831 SJ 00148 _S J 0 SJ 01119 SJ 01314 SJ 02022 SJ 01503
	SJ 02725-100lt SJ 03029-45lt SJ 03017-20	SJ 02647-58/t SJ 02137-380/t SJ 0124 0/t SJ 01892-420/t
S. 30045	SJ 03283-811 SJ 00944-51t SJ 00132-461t SJ 02787-1401t	SJ 01344-27/tt SJ 01798-70/tt
	SJ 03730 POD1=70it	SJ 02729-70ft SJ 02761-40ft SJ 02761-40ft SJ 03204-20ft
	SJ 00965 SJ 03797 POD1-2	SJ 03611-14/t SJ 02836-30/t
5 miles	SJ 02987-87/tt SJ 0204	SJ 01094-60it SJ 02276-19it 48-24it SJ 03734 POD1-10it
	SJ 02977-124/t	SJ 01295-180/t

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AVERAGE DEPTH OF WATER REPORT 10/21/2008

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								(Depth	Water in	Feet)
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
RG	29N	12W	01				2	35	40	38
RG	29N	12W	02				2	40	40	40
RG	29N	12W	13				1	105	105	105
SJ	29N	12W	01				1	120	120	120
SJ	29N	12W	04				3	155	310	212
SJ	29N	12W	05				1	45	45	45
SJ	29N	12W	06				9	4	118	24
SJ	29N	12W	07				3	80	180	117
SJ	29N	12W	08				2	60	60	60
SJ	29N	12W	10^{-1}				1	175	175	175
SJ	29N	12W	14				1	60	60	60
SJ	29N	12W	15				3	75	36	80
SJ	29N	12W	19				9	2	40	18
SJ	29N	12W	20				1	10	10	10
SJ	29N	12W	22				1	185	195	185
SJ	29N	12W	24				4	ē	35	18
SJ	29N	12W	24		2,65819	2077065	1	11	11	11
SJ	29N	12W	25				13	3	40	16
SJ	29N	12W	26				15	12	70	26
SJ	29N	12W	26		265547	2072216	1	11	11	11
SJ	29N	12W	2€		265592	2072287	1	14	14	14
SJ	29N	12W	27				31	ĉ	48	21
SJ	29N	12W	27		264678	2071912	1	10	10	10
SJ	29N	12W	28				3	23	25	24
SJ	29N	12W	29				19	3	17	8
SJ	29N	12W	30				5	4	8	ē
SJ	29N	12W	33				2	35	50	43
SJ	29N	12W	34				1	2	2	2
SJ	29N	12W	35				5	4	50	17
SJ	29N	12W	36				11		40	16

New Mexico Office of the State Engineer New Mexico Office of the State Engineer POD Reports and Downloads

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		AVER	JUE .	DEPIN OF	MALER	REPURI	10/21/200	0		
								(Depth	Water in	Feet)
Bsn	Tvs	Rng	Sec	Zone	Х	Y	Wells	Min	Max	Avg
RG	29N	13W	19				1	30	30	30
RG	29N	13W	29	С			1	ĉ	6	ē
SJ	29N	13W	01				4	13	40	28
SJ	29N	13W	02				7	17	90	34
SJ	29N	13W	04				2	10	16	13
SJ	29N	13W	05				4	10	20	16
SJ	29N	13W	ΰē				1	12	12	12
SJ	29N	13W	08				2	4	30	17
SJ	29N	13W	0.9				13	9	50	17
SJ	29N	13W	10				15	9	38	20
SJ	29N	13W	11				9	10	39	19
SJ	29N	13W	14				33	4	30	õ
SJ	29N	13W	15				2	4	25	15
SJ	29N	13W	16				3	21	35	27
SJ	29N	13W	17				2	8	20	14
SJ	29N	13W	13				1	11	11	11
SJ	29N	13W	21				3	ê	20	11
SJ	29N	13W	21	2	2 6121 8	2079099	1	5	5	5
SJ	29N	13W	22				28	7	35	16
SJ	29N	13W	22	2	€1533	2080965	1	15	15	15
SJ	29N	13W	23				7	6	30	15
SJ	29N	13W	24				1	32	32	32
SJ	29N	13W	25				1	75	75	75

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							(Depth	Water in	Feet)
Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
29N	14W	05				1	90	90	90
29N	14W	30				2	30	5,2	41
29N	14W	07				e	ê	50	24
29N	14W	08				3	50	275	132
29N	14W	12		259584	208€850	1	20	20	20
29N	14W	13				2	4	10	7
29N	14W	13		259540	2085641	1	ê	6	ć
29N	14W	17				7	3	28	13
29N	14W	13				e	7	25	17
	Tws 29N 29N 29N 29N 29N 29N 29N 29N	Tws Rng 29N 14W 29N 14W	Tws Rng Sec 29N 14W 05 29N 14W 06 29N 14W 07 29N 14W 08 29N 14W 12 29N 14W 13 29N 14W 18	Tws Rng Sec Zone 29N 14W 05 29N 14W 06 29N 14W 07 29N 14W 08 29N 14W 12 29N 14W 13 29N 14W 13 29N 14W 13 29N 14W 17 29N 14W 18	Tws Rng Sec Zone X 29N 14W 05 29N 14W 06 29N 14W 07 29N 29N 29N 14W 08 29N 259584 29N 14W 13 259584 29N 14W 13 259540 29N 14W 17 29N	Tws Rng Sec Zone X Y 29N 14W 05 5	Tws Rng Sec Zone X Y Wells 29N 14W 05 1 2 2 29N 14W 06 2 2 29N 14W 07 6 2 29N 14W 08 3 3 29N 14W 12 259584 2086850 1 29N 14W 13 2 2 2 29N 14W 13 7 2 2 29N 14W 17 7 7 2 29N 14W 18 6 6	Tws Rng Sec Zone X Y Wells Min 29N 14W 05 1 90 29N 14W 06 2 30 29N 14W 07 6 6 29N 14W 08 3 50 29N 14W 12 259584 2086850 1 20 29N 14W 13 259540 2085641 1 6 29N 14W 13 259540 2085641 1 6 29N 14W 17 7 3 3 29N 14W 18 6 7	Tws Rng Sec Zone X Y Wells Min Max 29N 14W 05 1 90 90 29N 14W 06 2 30 52 29N 14W 06 2 30 52 29N 14W 07 6 6 50 29N 14W 08 3 50 275 29N 14W 12 259584 2086850 1 20 20 29N 14W 13 259540 2085641 1 6 6 29N 14W 13 259540 2085641 1 6 6 29N 14W 17 7 3 28 29N 14W 18 6 7 25

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Bsn	Tws	Rng	Sec	Zone	x	Y	Wells	(Depth Min	Water in Max	Feet) Avg
SJ	29N	15W	04				1	22	22	22
SJ	29N	15W	30				1	14	14	14
SJ	29N	15W	11				é	4	45	15
SJ	29N	15W	11	W	336000	2092200	1	25	25	25
SJ	29N	15W	12				6	ć	110	38
SJ	29N	15W	13				2	12	20	16

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							(Depth	Water in	Feet)
Bsn	Tws	Rng Sea	c Zone	X	Y	Wells	Min	Max	Avg
SJ	30N	12W 02				2	135	140	138
SJ	30N	12W 04				00	39	110	76
SJ	30N	12W 10				3	43	70	58
SJ	30N	12W 10		265151	2121325	1	82	82	82
SJ	30N	12W 11				2	122	123	123
SJ	30N	12W 12				5	20	51	35
SJ	30N	12W 12		266123	2118278	1	12	12	12
SJ	30N	12W 13				12	10	50	26
SJ	30N	12W 14				21	ê	50	22
SJ	30N	12W 15				38	8	105	43
SJ	30N	12W 16				1	100	100	1.00
SJ	30N	12W 18				19	190	420	331
SJ	30N	12W 18		266399	2116162	1	9	9	9
SJ	30N	12W 19				2	195	240	218
SJ	30N	12W 21				1	35	35	35
SJ	30N	12W 21	W	424400	2174000	1	15	15	15
SJ	30N	12W 22				43	3	66	18
SJ	30N	12W 22		264817	2109564	1	33	33	33
SJ	30N	12W 23				57	2	80	11
SJ	30N	12W 23		265343	2107306	1	6	ê	6
SJ	30N	12W 23		265563	211067	1	5	5	5
SJ	30N	12W 24				G.	4	44	14
SJ	30N	12W 25				4	18	150	65
SJ	30N	12W 26				1	40	40	40
SJ	30N	12W 26		265470	2106124	1	80	30	80
SJ	30N	12W 27				24	3	55	13
SJ	30N	12W 27		264712	2103138	1	35	35	35
SJ	30N	12W 28				16	5	61	26
SJ	30N	12W 28		264258	2104657	1	5	5	5
SJ	30N	12W 29				10	11	185	57
SJ	30N	12W 30				5	16	220	91
SJ	30N	12W 31				26	7	47	24
SJ	30N	12W 32				43	4	50	20
SJ	30N	12W 32		263644	2098600	1	8	8	3

SJ	3.0N	12W (33				28	10.	269	74
SJ	30N	12W (34				1	25	25	25
SJ	30N	120 3	3€				1	39	89	89
SJ	30N	12W (3€	W	436910	2097860	1	100	100	100

Record Count: 399

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								(Depth	Water in	Feet)
Bsn	Tws	Rng	Sec	Zone	x	Y	Wells	Min	Max	Avg
RG	30N	13W	30				1	45	45	45
SJ	30N	13W	01				1	27	27	27
SJ	30N	13W	05				2	8	46	27
SJ	30N	13W	08				18	8	56	27
SJ	30N	13W	09				3	32	140	91
SJ	30N	13W	11				1	58	58	58
SJ	30N	13W	17				3	9	45	25
SJ	30N	13W	26				00	230	350	286
SJ	30N	13W	27				1	250	250	250
SJ	30N	13W	28				2	30€	306	306
SJ	30N	13W	29				10	15	65	31
SJ	30N	13W	30				1	21	21	21
SJ	30N	13W	32				4	10	18	14
SJ	30N	13W	35				1	200	200	200

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AVERAGE DEPTH OF WATER REPORT 10/21/2008

Bsn	Tws	Rng	Sec	Zone	x	Y	Wells	(Depth Min	Water in Max	Feet) Ava
SJ SJ	30N 30N	15W 15W	29 36	N	254738 342253	2105417 2100399	1	12 102	12 131	12 117

Record Count: 3

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Bsn	Tws	Rng	Sec	Zone	х	Y	Wells	(Depth Min	Water in Max	Feet) Avg
SJ	31N	12W	01				7	20	275	122
SJ	31N	12W	08				1	142	142	142
SJ	31N	12W	24				1	85	35	85
SJ	31N	12W	25				5	90	505	181
SJ	31N	12W	31				1	20	20	20
SJ	31N	12W	35				(4	210	250	230

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								(Depth	Water in	Feet)
Bsn	Tws	Rng	Sec	Zone	x	Y	Wells	Min	Max	Avg
SJ	31N	13W	02				2	19	70	45
SJ	31N	13W	03				2	11	22	17
SJ	31N	13W	09				4	40	180	108
SJ	31N	13W	10				11	4	65	22
SJ	31N	13W	15				2	10	24	17
SJ	31N	13W	21				1	ē	ē	÷
SJ	31N	13W	22				ē	5	40	24
SJ	31N	13W	23				1	14	14	14
SJ	31N	13W	27				5	20	7ŭ	38
SJ	31N	13W	28				5	2	70	21
SJ	31N	13W	33				4	e	56	24







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.



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

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

General Plan

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

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

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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.

Well Nan	10 '							
					API No.:			
Legals	Sec:		Township:		Range:			
XTO Inspector's	Inspection	Inspection	Any visible liner	Any visible signs of	Collection of surface	Visible laver	Any visible signs	Ereeboo
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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·····								
Notes:	Provide De	tailed Descri	ption:					
		<u> </u>	·					
Misc:								
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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

- 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.
- 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.
- 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

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14. All closure activities will include proper documentation and be available for review upon request and will be submitted in closure report form to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on form C-144 and incorporate the following:

- i. Proof of closure notice to division and surface owner;
- ii. Details on capping and covering, where applicable;
- iii. Inspection reports;
- iv. Confirmation sampling analytical results;
- v. Disposal facility name(s) and permit number(s);
- vi. Soil backfilling and cover installation;
- vii. Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable);
- viii. Photo documentation of the site reclamation.

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