7_____1

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.

95UU

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

☐ Closure of a ☐ Modification	pit, closed-loop system, below-grade tank, or pro a pit, closed-loop system, below-grade tank, or pro n to an existing permit n only submitted for an existing permitted or non-	oposed alternative method
below-grade tank, or proposed al		
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, b	elow-grade tank or alternative request
Please be advised that approval of this request does not relic environment Nor does approval relieve the operator of its	ve the operator of liability should operations result in poll esponsibility to comply with any other applicable govern	ution of surface water, ground water or the mental authority's rules, regulations or ordinances
operator: XTO Energy, Inc.	OGRID #: 53	80
Address: #382 County Road 3100, Aztec, NM 8		
Facility or well name: New Mexico B Com #2		
API Number: 30-045-35327	OCD Permit Number:	
U/L or Qtr/Qtr Section 16	Township 29N Range 11W Co	unty: San Juan
Center of Proposed Design: Latitude36.7234		NAD: □1927 🗓 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tri	pal Trust or Indian Allotment	
2. X Pit: Subsection F or G of 19.15.17.11 NMAC		RCVD FEB 2'12
Temporary: X Drilling Workover		OIL CONS. DIV.
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A		DIST. 3
☐ Lined ☐ Unlined Liner type: Thickness20	mil X LLDPE HDPE PVC Other	VIDI. O
▼ String-Reinforced		
Liner Seams: Welded Tactory Other	Volume:bbl Dir	mensions: L 200 x W 80 x D 8-12
3.		
X Closed-loop System: Subsection H of 19.15.17.1	I NMAC	
Type of Operation: P&A Drilling a new well	☐ Workover or Drilling (Applies to activities which re	equire prior approval of a permit or notice of
intent) To be used during completion operations Drying Pad Above Ground Steel Tanks H	oul off Pins Other	
Lined Unlined Liner type: Thickness		er
Liner Seams: Welded Factory Other		
4. Below-grade tank: Subsection I of 19.15.17.11	IMAC	
Volume:bbl Type of fluid:		
Tank Construction material:		
☐ Secondary containment with leak detection ☐ V		
☐ Visible sidewalls and liner ☐ Visible sidewalls of	nly Other	
Liner type: Thicknessmil	HDPE PVC Other	
5.	11-71-20-20-20-20-20-20-20-20-20-20-20-20-20-	
Alternative Method:		
Submittal of an exception request is required. Excepti	ons must be submitted to the Santa Fe Environmental I	Bureau office for consideration of approval.

6.						
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)						
Learn link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hinstitution or church)	hospital,					
☑ Four foot height, four strands of barbed wire evenly spaced between one and four feet						
Alternate. Please specify						
7.						
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)						
☐ Screen ☐ Netting ☐ Other						
☐ Monthly inspections (If netting or screening is not physically feasible)						
8.						
Signs: Subsection C of 19.15.17.11 NMAC						
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	:					
X Signed in compliance with 19.15.3.103 NMAC						
9. Administrative Approvals and Exceptions:						
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.						
Please check a box if one or more of the following is requested, if not leave blank: Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau of	office for					
consideration of approval. Fencing- Hogwire	,,,,,,,					
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.						
10. Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept						
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system.	pproval.					
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	☐ Yes ☐ No					
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						
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No					
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No					
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No					
Within a 100-year floodplain FEMA map	☐ Yes ☐ No					

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
 ☒ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC ☒ Design Plan - based upon the appropriate requirements of 19.15.17.12 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.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
☐ Previously Approved Operating and Maintenance Plan API Number:(Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached.
Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC ☐ Climatological Factors Assessment
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Quality Control/Quality Assurance Construction and Installation Plan
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan
☐ Emergency Response Plan ☐ Oil Field Waste Stream Characterization
Monitoring and Inspection Plan
☐ Erosion Control Plan
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
14.
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: \[\text{Drilling } \] Workover \[\text{Emergency } \] Cavitation \[\text{P&A} \] Permanent Pit \[\text{Below-grade Tank } \] Closed-loop System
Alternative
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only)
✓ Waste Removal (Closed-loop systems only) ✓ On-site Closure Method (Only for temporary pits and closed-loop systems)
☑ In-place Burial ☐ On-site Trench Burial
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15. Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the
closure plan. Please indicate, by a check mark in the box, that the documents are attached.
Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
 □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Groun Instructions: Please indentify the facility or facilities for the disposal of liquids facilities are required.		
Disposal Facility Name: Envirotech	Disposal Facility Permit Number:NM01-	0011
Disposal Facility Name: IEI	Disposal Facility Permit Number: NM01-	0010B
Will any of the proposed closed-loop system operations and associated activities ☐ Yes (If yes, please provide the information below) ☒ No	occur on or in areas that will not be used for future s	ervice and operations?
Required for impacted areas which will not be used for future service and operat Soil Backfill and Cover Design Specifications based upon the appropriat Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	ate requirements of Subsection H of 19.15.17.13 NM on I of 19.15.17.13 NMAC	AC
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may required an exception which must be submitted to the Santa Fe Environment demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	e closure plan. Recommendations of acceptable so ire administrative approval from the appropriate d tal Bureau office for consideration of approval. Ju	istrict office or may be
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; D	ata 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; D	ata obtained from nearby wells	X 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; D	ata obtained from nearby wells	Yes X No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other slake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	ignificant watercourse or lakebed, sinkhole, or playa	☐ Yes 🛛 No
Within 300 feet from a permanent residence, school, hospital, institution, or chur - Visual inspection (certification) of the proposed site; Aerial photo; Satell		☐ Yes 🛛 No
Within 500 horizontal feet of a private, domestic fresh water well or spring that lew atering purposes, or within 1000 horizontal feet of any other fresh water well or - NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application	Yes 🛛 No
Within incorporated municipal boundaries or within a defined municipal fresh ward adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written appre	•	☐ Yes ☒ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Vis	sual 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-Mini	ng and Mineral Division	☐ Yes 🛛 No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geold Society; Topographic map	ogy & Mineral Resources; USGS; NM Geological	Yes 🛛 No
Within a 100-year floodplain FEMA map		☐ Yes 🏻 No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate reQuirements Construction/Design Plan of Burial Trench (if applicable) based upon the Construction/Design Plan of Temporary Pit (for in-place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19. Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Usposal Facility Name and Permit Number (for liquids, drilling fluids and Soil Cover Design - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Plan - base	equirements of 19.15.17.10 NMAC of Subsection F of 19.15.17.13 NMAC appropriate requirements of 19.15.17.11 NMAC pad) - based upon the appropriate requirements of 1.15.17.13 NMAC equirements of Subsection F of 19.15.17.13 NMAC of Subsection F of 19.15.17.13 NMAC d drill cuttings or in case on-site closure standards can H of 19.15.17.13 NMAC on I of 19.15.17.13 NMAC	9.15.17.11 NMAC

Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): Malia Villers Title: Permitting Tech.
Signature: Malia VIIIero Date: 2-1.12
e-mail address: malia_villers@xtoenergy.com Telephone:(505) 333-3100
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: 2/06/2012 Title: OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date:
Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.
Disposal Facility Name: Disposal Facility Permit Number:
Disposal Facility Name: Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations? Yes (If yes, please demonstrate compliance to the items below) No
Required for impacted areas which will not be used for future service and operations: Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique
24.
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.
☐ Proof of Closure Notice (surface owner and division) ☐ Proof of Deed Notice (required for on-site closure) ☐ Plot Plan (for on-site closures and temporary pits) ☐ Confirmation Sampling Analytical Results (if applicable) ☐ Waste Material Sampling Analytical Results (required for on-site closure) ☐ Disposal Facility Name and Permit Number ☐ Soil Backfilling and Cover Installation ☐ Re-vegetation Application Rates and Seeding Technique ☐ Site Reclamation (Photo Documentation)
On-site Closure Location: Latitude Longitude NAD: \[\Boxed{1927} \Boxed{1983}
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. Name (Print): Title:
Signature: Date:
e-mail address: Telephone:

	PIT PERMIT SITING	CRITERIA INFORMATIO	N SHEET	
API#:	N/A		Nelson Reveg	
Well Name:	New Mexico B Com #2		Project:	Pit Siting Permits
Operator:	XTO Energy, Inc			1/30/2012
operator.[ATO Energy, mo		Prepared by:	
USPLSS:	T29N, R11W, S16		r repared by.	Oct cit i voca
Lat/Long:	36.7234N, 107.99426W			
Laucong.	30.723414, 107.9942044			
1.) Depth to Groundwa	ter:			50 feet to 100 feet
2a.) Distance to closes	st continuously flowing watercour	se: 1.6 miles Sout	h to the San Jua	n River
2b.) Distance to closes	st significant watercourse, lakebe	d, playa lake, or sinkho	le:	
	_ ,		o Citizens Ditch	
		259 reet East t	o Citizens Ditch	
3.) Permament residen	ce, school, hospital, institution o	church within 300'?		NO
4a.) Domestic fresh wa	ater well or spring within 500'?			NO
4b.) Any other fresh wa	ater well or spring within 1000'?			NO
5a.) Within incorporate	ed municipal boundaries?			NO
5b.) Within defined mu	nicipal fresh water well field?			NO
6.) Wetland within 500'	?			NO
7.) Within the area ove	rlying a subsurface mine?			NO
8.) Within unstable are	a? -			NO
9.) Within 100 year floo	od plain?			NO
Additional Notes:	Figure 1: Topographic Map Figure 2: Aerial Photo Figure 3: Mines, Mills and Quarries Figure 4: Water Well and Surface W Figure 5: Municipal Boundaries Map Figure 6: FEMA Flood Zone Map iWaters Data Geologic Formation: Nacimiento Fo			
1	Soil Type: Entisols Annual Precipitation: Bloomfield = 8 ECOMATING 915 Malta Avenue Formington, N		27-7928 ♦ Fo	× (505) 326-5721

DISTRICT I 1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico Energy, Minerals & Natural Resources Department

DISTRICT H 1301 W Grand Ave., Artesia, N.M. 88210

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies Fee Leose - 3 Copies

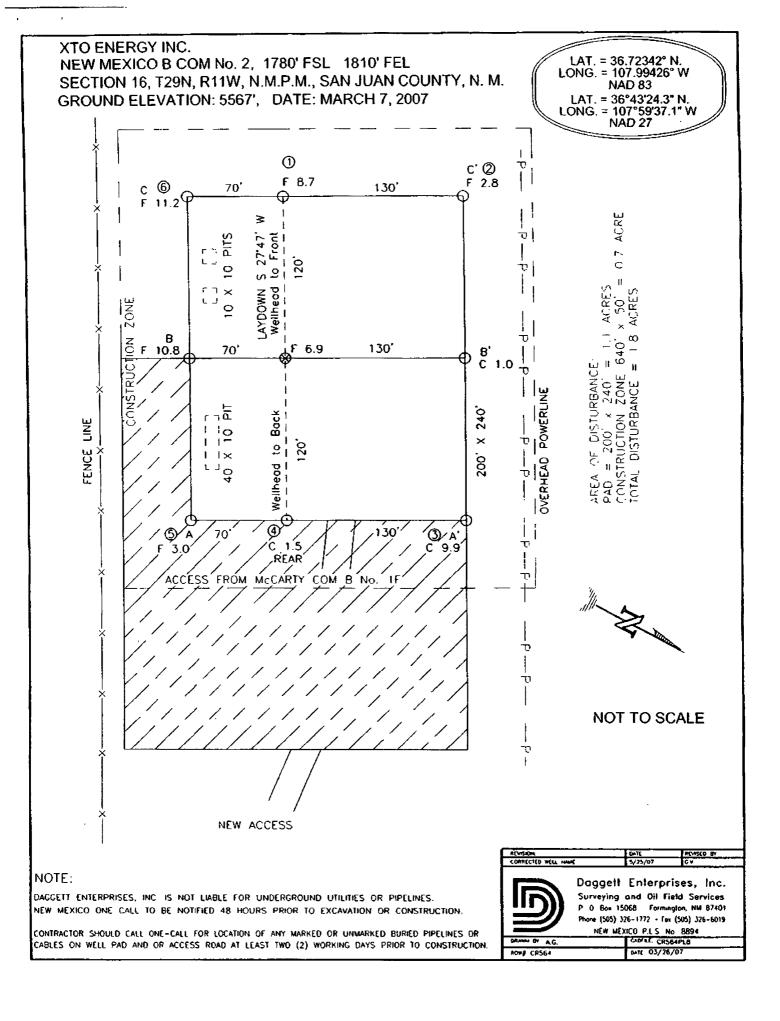
DISTRICT III
1000 Rio Brozos Rd., Aztec, N.M. 87410

☐ AMENDED REPORT

DISTRICT IV 1220 South St. Francis Dr., Santo Fe, NM 87505

WELL LOCATION	CINA	ACREAGE	DEDICATION	PLAT

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	:				NEW M	EXICO 1	в сом			2		
OCRID No			*Operator Name									(levation
		<u></u>		XTO ENERGY INC						5567		
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			11 Bolle	m Hole	Loca	ntion If	Different From	n Si	ırlace	l		
Ut or lot no.	Section	Township	Ronge	Lot Idn	Feet fro		North/South line		from the	Eost/Wes	st line	County
N Dada alad Assa	<u> </u>	110	Joint or Infill		14 Conso	lidation Co	de	15 Ord	ler No.			L
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							SEC. COR)	··········	CEDI	IFICATION
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									right to dist	the well of	this location	pursuant to a neration working
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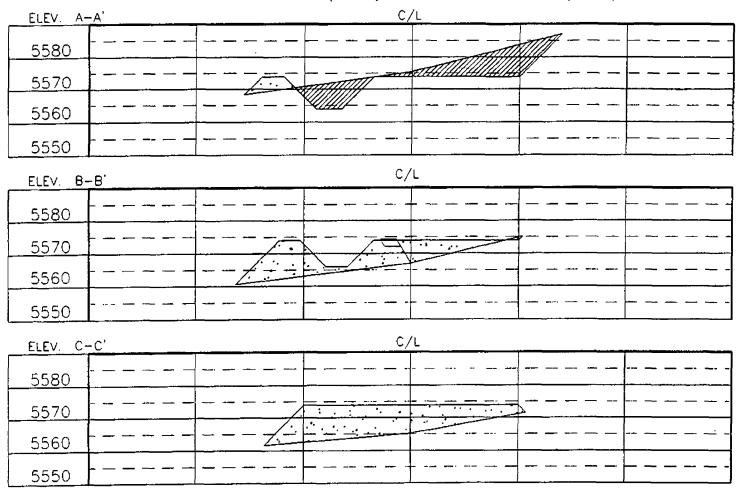
XTO ENERGY INC.

NEW MEXICO B COM No. 2, 1780 FSL 1810 FEL

SECTION 16, T-29-N, R-11-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO

GROUND ELEVATION: 5567' DATE: MARCH 7, 2007

LATITUDE: 36.72342° N (NAD 83) LATITUDE: 36°43'24.3" N (NAD 27) LONGITUDE: 107.99426° W (NAD 83) LONGITUDE: 107°59'37.1" W (NAD 27)



NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

EVISION	DAIC	REMSCO 81
CORRECTED HELL HAME	5/25/07	GV



Daggett Enterprises, Inc. Surveying and Oil Field Services P. 0 Box 15068 Farmington, NM 87401 Phore (505) 326-1772 - Fax (505) 326-6019 NEW MEXICO L.S. 8894

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DRAWN BY A.G		CASATO	CR564CF	B
ROW CR564		DATE (3/26/07	
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NEW MEXICO B COM #2 Hydrogeologic Report for Siting Criteria

General Geology and Hydrology

The San Juan Basin is a typical Rocky Mountain basin with a gently dipping southern flank and a steeply dipping northern flank. Asymmetrically layered Tertiary sandstones and shale, along with Quaternary alluvial deposits, dominate surficial geology (Dane and Bachman, 1965). The proposed pit location will be located near Bloomfield between the Animas and San Juan Rivers. The Nacimiento Formation of Tertiary Age is exposed, along with Quaternary alluvial and aeolian sands within dry washes and arroyos.

Cretaceous Tertiary sandstones, as well as Quaternary alluvial deposits serve as the primary aquifers in the San Juan Basin (Stone et al., 1983). In most of the proposed area, the Nacimiento Formation lies at the surface. Thickness of the Nacimiento ranges from 418 to 2232 feet (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation are between 0 and 1000° deep in this section of the basin (Stone et al., 1983). Groundwater within these aquifers flows toward the San Juan River and its tributaries.

The prominent soil types at the proposed site are 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 San Juan River. These features often cut into soil and other unconsolidated materials, contributing to sedimentation downstream. The sudden influx of water from storm events easily erodes the soils that cover the area.

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 Region Climate Center www.wrcc.dri.edu).

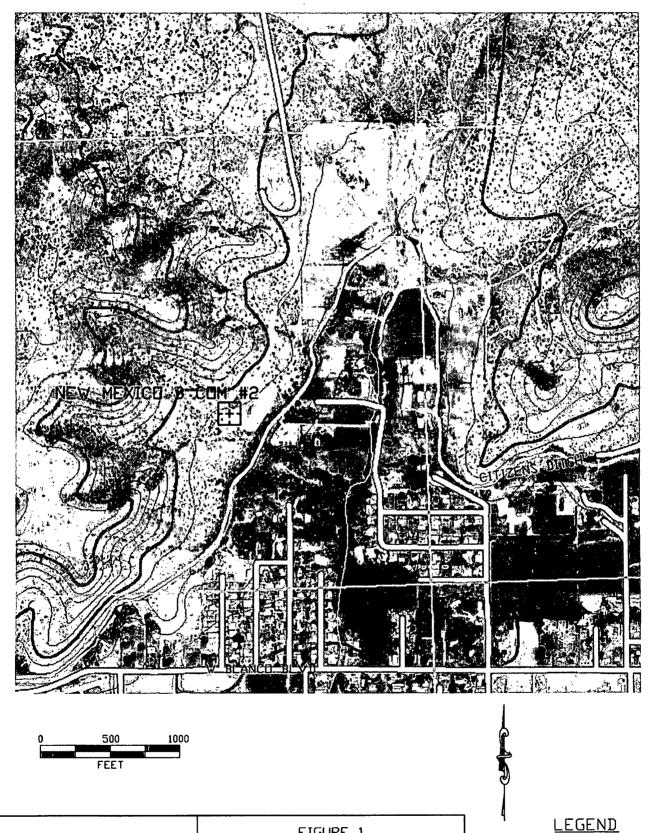
The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

Site Specific Hydrogeology

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

Local aquifers include sandstones within the Nacimiento Formation, which ranges from 0 to 1000 feet deep in this area, as well as shallow aquifers within Quaternary alluvial deposits (Stone et al., 1983). The 1000-foot depth range for Nacimiento aquifers covers an area over 20 miles wide, and depth decreases towards the margin of the San Juan Basin. The site in question is more centrally located, and depth to the aquifer is expected to be closer to 1000 feet. It is well known that groundwater close to the San Juan River can be shallow, as the Quaternary deposits near the river itself form shallow aquifers. However, the proposed site is situated over a mile to the north of the San Juan River, and is approximately 150 feet higher in elevation (Google Earth).

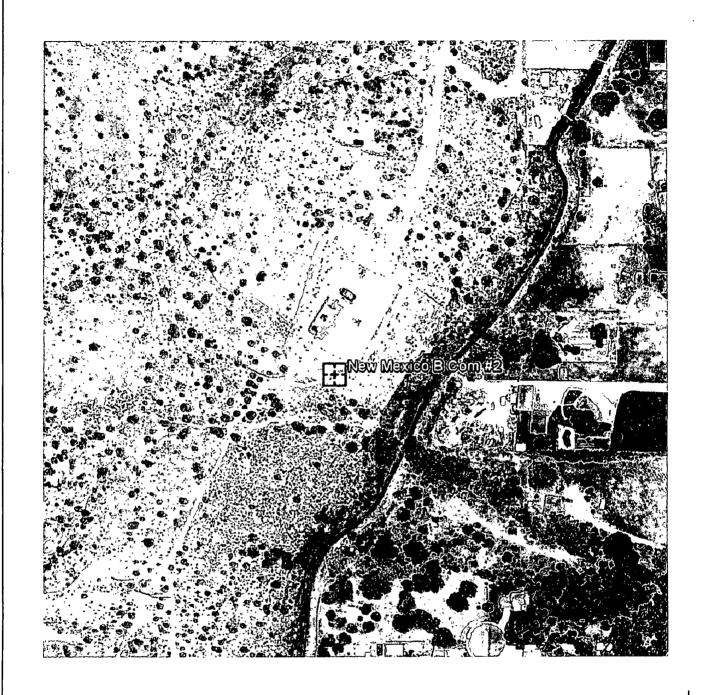
Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. A map showing the location of wells in reference to the proposed pit location is attached. Depth to groundwater within the nearby wells ranges from 6 feet to 80 feet below ground surface. The closest well to the proposed site, SJ-02141, is located approximately 1,467 feet to the south, and is approximately 50 feet lower in topographic elevation (Google Earth). Depth to groundwater at this well is 40 feet below ground surface. A well to the northwest, SJ-02926, is approximately the same elevation as the proposed site, and has a depth to groundwater of 80 feet below ground surface. Therefore, depth to groundwater is estimated to be between 50 feet and 100 feet at the proposed location.

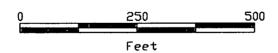


GEOMAT INC

FIGURE 1 TOPOGRAPHIC MAP NEW MEXICO B COM #2 SEC 16 T29N R11W SAN JUAN COUNTY, NEW MEXICO







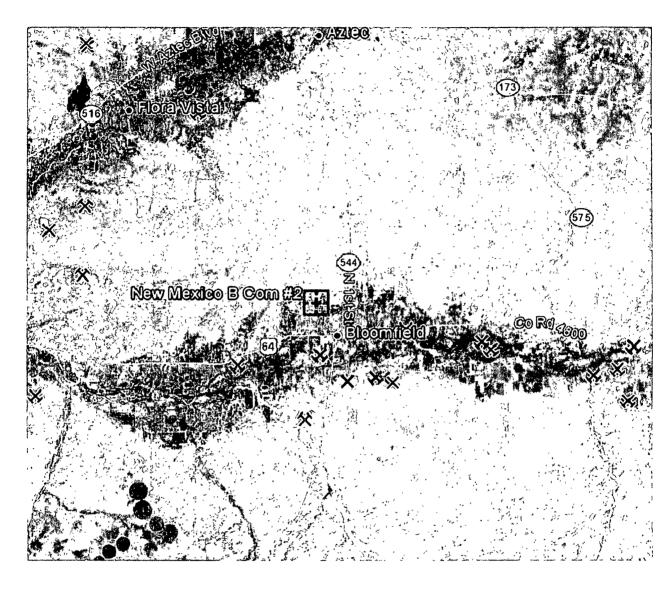


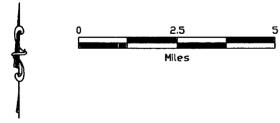
GEOMAT INC

FIGURE 2 AERIAL PHOTOGRAPHIC MAP NEW MEXICO B COM #2 SEC 16 T29N R11W SAN JUAN COUNTY, NEW MEXICO **LEGEND**



WELL PERMIT





LEGEND

WELL PERMIT

☆ Mine

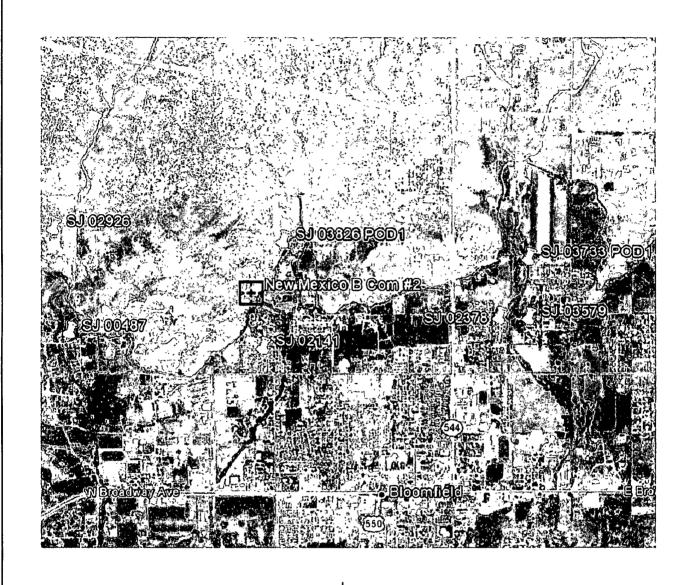
Closed Mine

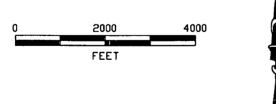
Occurrence, Prospect, or Unknown

GEOMATING

FIGURE 3
MINES, MILL AND QUARRIES MAP
NEW MEXICO B COM #2
SEC 16 T29N R11W
SAN JUAN COUNTY, NEW MEXICO

NEAREST OPERATIONAL MINE/PIT IS 2.15 MILES AWAY





LEGEND



WELL PERMIT

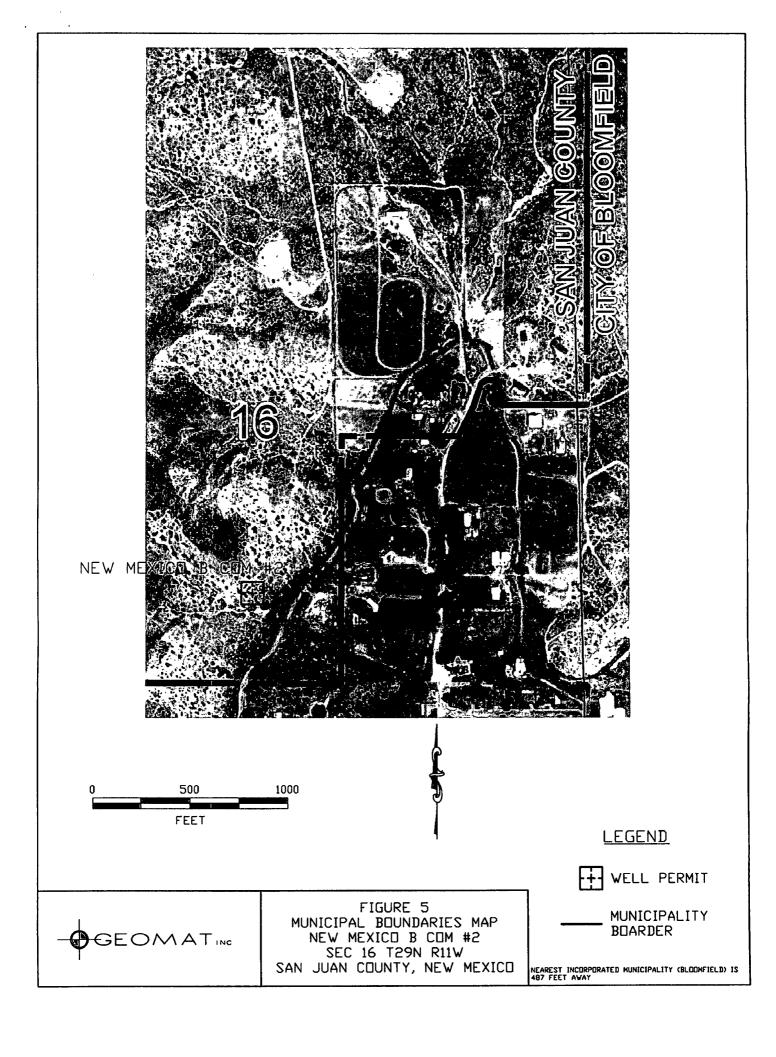


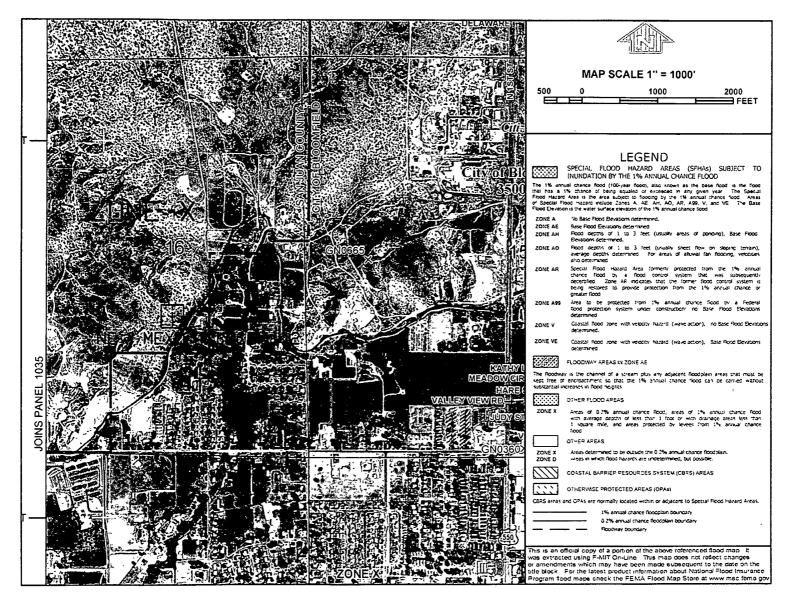
WATER WELL
(SECTION 15-17)



FIGURE 4
NEARBY WATER WELL MAP
NEW MEXICO B COM #2
SEC 16 T29N R11W
SAN JUAN COUNTY, NEW MEXICO

NEAREST SURFACE WATER (CITIZENS DITCH) IS 259 FEET AWAY





GEOMATING

FIGURE 6
FEMA FLOOD ZONE MAP
NEW MEXICO B COM #2
SEC 16 T29N R11W
SAN JUAN COUNTY, NEW MEXICO

LEGEND





New Mexico Office of the State Engineer Wells with Well Log Information

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right

(R=POD has been replaced. O=orphaned,

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

C=the file is

file.)	closed)	(quarter	s are sm	nallesi	to largest)	(NAD83 UTI	M in meters)			(ın fe	et)	
	POD		q q q						Log File	Depth	Depth	License
POD Number	Code Subbasin County				•	х	-	Start Date	Finish Date Date		Water Driller	Number
SJ 00487	SJ	Shallow	4 4	17	29N 11W	231313	4068078*	11/16/1977	11/22/1977 01/03/1978	60	6	666
SJ 02141	SJ	Shallow	4 3 4	16	29N 11W	232618	4067931*	08/14/1987	08/18/1987 10/07/1988	110	40 CHIVERS, BRYCE	809
SJ 02378	SJ	Shallow	2 3 4	15	29N 11W	234229	4068080*	10/02/1992	10/08/1992 10/15/1992	75	12 MCDONALD, D.K.	725
SJ 02926	SI	Shallow	3 4 2	17	29N 11W	231238	4068779*	05/03/1999	05/10/1999 06/07/1999	375	80 MARK BAILEY	1357
SJ 03579	SJ	Shallow	1 4 4	15	29N 11W	234431	4068068*	03/10/2006	03/21/2006 03/22/2006	83	30 HOOD, TERRY	717
SJ 03733 POD1	SJ	Shallow	1 2 4	15	29N 11W	234444	4068469*	05/17/2007	05/18/2007 05/24/2007	64	20 HOOD, TERRY	717
SJ 03826 POD1	SJ		3 4 2	16	29N 11W	232782	4068642	12/01/2008	12/02/2008 12/08/2008	175	TERRY HOOD	717

Record Count: 7

PLSS Search:

Section(s): 15-17

Township: 29N

Range: 11W

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

XTO Energy Inc. San Juan Basin Pit Design and Construction Plan

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

General Plan

- 1. XTO will design and construct a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public heath and environment.
- 2. Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.
- XTO will post a well sign, in compliance with 19.15.3.103 NMAC, on the well site prior to
 construction of the temporary pit. 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.
- 4. XTO shall construct all new fences utilizing 48" steel mesh field-fence (hogwire) on the bottom with a single strand of barbed wire on top. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post. Temporary pits will be fenced at all times excluding drilling or workover operations, when the front side of the fence will be temporarily removed for operational purposes.
- 5. XTO shall construct the temporary pit so that the foundation and interior slopes are firm and free of rocks, debris, sharp edges or irregularities to prevent liner failure.
- XTO shall construct the pit so that the slopes are no steeper than two horizontal feet to one vertical foot.
- 7. Pit walls will be walked down by a crawler type tractor following construction.
- 8. All temporary pits will be lined with a 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.
- 9. Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided.
- All liners will be anchored in the bottom of a compacted earth-filled trench at least 18 inches deep.
- 11. XTO will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used when possible. XTO will ensure all field seams are welded by qualified personnel. Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope. XTO will minimize the number of field seams in corners and irregularly shaped areas.
- 12. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system.
- 13. The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some areas.
- 14. The volume of the pit shall not exceed 10 acre-feet, including freeboard.

XTO Energy Inc. San Juan Basin Maintenance and Operating Plan

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

General Plan

- 1. XTO will operate and maintain a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public health and environment.
- XTO will conserve drilling fluids by transmitting liquids to pits ahead of the rigs whenever possible. All drilling fluids will be disposed at Basin Disposal Inc, Permit # NM-01-005.
- 3. XTO will not discharge or store any hazardous waste in any temporary pit.
- 4. If any pit liner integrity is compromised, or if any penetration of the liner occurs above the liquid surface, then XTO shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner.
- 5. If a leak develops below the liquid level, XTO shall remove all liquids above the damaged liner within 48 hours and repair the damage or replace the liner. XTO shall notify the Aztec Division office by phone or email within 48 hours of the discovery for leaks less than 25 barrels. XTO shall notify the Aztec Division office as required pursuant to Subsection B of 19.15.3.116 NMAC within twenty-four (24) hours of discovery of leaks greater than 25 barrels. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), and Subparagraph (d) of 19 15 3 116 NMAC shall be reported to the division's Environmental Bureau Chief.
- 6. The liner shall be protected from any fluid force or mechanical damage through the use of mud pits slides, or a manifold system.
- 7. The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases.
- 8. XTO shall immediately remove any visible layer of oil from the surface of the temporary pit after cessation of a drilling or workover operation. Oil absorbent booms will be utilized to contain and remove oil from pits surface. An oil absorbent boom will be stored on-site until closure of pit.
- Only fluids generated during the drilling or workover process will be discharged into a temporary pit.
- 10. XTO will maintain the temporary pit free of miscellaneous solid waste or debris.
- 11. During drilling or workover operations, XTO will inspect the temporary pit at least once daily to ensure compliance with this plan. Inspections will be logged and logs maintained for review. XTO will file this log with the Aztec Division office upon closure of the pit.
- 12. After drilling or workover operations, XTO will inspect the temporary pit weekly so long as liquids remain in the temporary pit. A log of the inspections will be stored at XTO's office electronically and will be filed with the Aztec Division office upon closure of the pit.
- 13. XTO shall maintain at least two feet of freeboard for a temporary pit.
- 14. XTO shall remove all free liquids from a temporary pit within 30 days from the date the operator releases the drilling or workover rig.

XTO Energy Inc. San Juan Basin Closure Plan

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

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

- Details on Capping and Covering, where applicable.
- Plot Plan (Pit Diagram)
- Inspection Reports
- Sampling Results
- C-105
- Copy of Deed Notice will be filed with County Clerk

General Plan:

- 1. All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycled, reused, or reclaimed in a manner that the Aztec Division office approves.
- 2. The preferred method of closure for all temporary pits will be on-site, in-place burial, assuming that all criteria listed in sub-section (B) of 19.15.17.13 are met.
- 3. The surface owner shall be notified of XTO proposed closure plan using a means that provides proof of notice i.e., Certified mail, return receipt requested.
- 4. Within 6 months of the Rig Off status occurring XTO will ensure that temporary pits are closed, re-contoured, and reseeded.
- 5. Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally. The notification of closure will include the following:
 - i. Operators Name
 - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "ALL" of the liner i.e., edges of liner entrenched or buried. All excessive liver will be disposed of at a licensed disposal facility.
- 7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve appropriate solidification. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B 0f 19.15.17.13 i.e., Dig and haul. Disposal facility to be utilized should this method be required will be Envirotech, Permit No. NM01-0011 or IEI, Permit No. NM01-0010B.

Components	Test Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500 or background

- 9. Upon completion of solidification and testing, the pit area will be backfield with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
- 10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, ponding prevention, and erosion prevention. 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.
- 11. Notification will be sent to OCD when the reclaimed area is seeded.
- 12. XTO shall seed the disturbed areas the first growing season after the operator closes the pit Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM of 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.
- 13. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time all wells on the pad are abandoned. The operator's information will include the following: Operators Name, Lease Name, Well Name and Number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

XTO Energy Inc. San Juan Basin Closed-Loop System Design and Construction Plan

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

General Plan

Our closed-loop system will not entail a drying pad, temporary pit, below grade tank or sump. It will entail an above ground tank suitable for holding the cuttings and fluids for rig operations. The tank will be of sufficient volume to maintain a safe free board between disposal of the liquids and solids from rig operations.

- 1. Fencing is not required for an above ground closed-loop system.
- 2. It will be signed in compliance with 19.15.3.103 NMAC.

RCVD FEB 6'12 OIL CONS. DIV.

DIST. 3

XTO Energy Inc. San Juan Basin Closed-Loop Systems Maintenance and Operating Plan

In accordance with Rule 19.15.17.11 NMAC the following information describes the operation and maintenance of closed-loop systems on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all closed-loop systems. A separate plan will be submitted for any closed-loop system which does not conform to this plan.

General Plan

The closed-loop tank will be operated and maintained; to contain liquids and solids, to aid in the prevention of contamination of fresh water sources, in order to protect public health and the environment. To attain the goal the following steps will be followed:

- 1. The liquids will be vacuumed out and disposed of at the Basin Disposal, Inc. facility (Permit Number NM01-005). An alternative if available for liquids disposal, will be to move the liquids forward to a XTO temporary pit constructed in accordance with all specifications in NMAC Rule 19.15.17 for a well yet to be drilled. All specifications, limitations, and rules within the New Mexico Administrative Code regulating this transfer of liquids will be strictly adhered to. As a third alternative, if Basin Disposal turns away the fluids because of capacity reasons, and the second transfer option is not available, XTO may elect to haul fluids to IEI (Permit Number NM01-0010B) for final disposition.
- Solids in the closed-loop tank will be vacuumed out and disposed of at Envirotech (Permit Number NM01-0011) or IEI (Permit Number NM01-0010B) on a periodic basis to prevent over topping
- No hazardous waste, miscellaneous solids, waste, or debris will be discharged into, or stored in the tank. Only fluids or cutting used or generated by rig operations will be placed or stored in the tank
- 4. The division district office will be notified within 48 hours of the discovery of compromised integrity of the closed-loop tank. Upon discovery of the compromised tank, repairs will be enacted immediately.
- All of the above operations will inspected and a log will be signed and dated daily during rig
 operations

XTO Energy Inc. San Juan Basin Closed-Loop System Closure Plan

In accordance with Rule 19.15.17.11 NMAC the following information describes the closure requirements of closed-loop systems on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all closed-loop systems. A separate plan will be submitted for any closed-loop system which does not conform to this plan.

General Plan

XTO will close a drying pad used for a closed-loop system within six months from the date that XTO released the drilling or workover rig. XTO will not the date of the drilling or workover rig's release on form C-105 or C-103, riled with the division, upon the well's or workover's completion.

The closed-loop tank will be closed in accordance with 19.15.17.13 NMAC. This will be done by transporting cuttings and all remaining sludges to Envirotech (Permit Number NM01-0011) or IEI (Permit Number NM01-0010B) immediately following rig operations.

All remaining liquids will be transported and disposed of at the Basin Disposal, Inc facility (Permit Number NM 01-005). As an alternative (in the event Basin Disposal refused liquids because of capacity considerations, and if proper inventory space is available for liquids transfer while meeting free board requirements), the liquids will be moved forward to a XTO temporary pit constructed in accordance with all specifications in NMAC Rule 19.15.17 for a well yet to be drilled. All specifications, limitations, and rules within the New Mexico Administrative Codes regulating this transfer of liquids will be strictly adhered to. As a third alternative, if Basin Disposal turns away the fluids because of capacity reasons, and the second transfer option is not available, XTO may elect to haul the fluids to IEI (Permit Number 01-0010B) for final disposition.

The tanks will be removed from the location as part of the rig move. At the time of well abandonment the site will be reclaimed and re-vegetated to pre-existing conditions when possible.