District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 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 C1220 South S). 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.

2008 DEC 12 PM 4 05

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

1 Toposea 7 Interni	ative intented i citime of Closure i tail?	- Th h
Existing BGT Closure o	a pit, closed-loop system, below-grade tank, or proper f a pit, closed-loop system, below-grade tank, or propi ion to an existing permit lan only submitted for an existing permitted or non-patternative method	posed alternative method
• • • • •	(Form C-144) per individual pit, closed-loop system, belo	ow-orade tank or alternative request
	lieve the operator of liability should operations result in polluti	_ = ·
	s responsibility to comply with any other applicable governme	
i. Operator: XTO Energy, Inc.	OGRID #:	5380
Address: #382 County Road 3100, Aztec, NM	<u>87410</u>	
Facility or well name:STATE GAS COM BR # 1	IF	
API Number: 30-045-31057	OCD Permit Number:	
	wnship 29N Range 10W County:	
	Longitude 107.85009 NA	
		AD. []1727 [Z] 1763
Surface Owner:  Federal State Private T	noai Trust or Indian Allotment	
☐ String-Reinforced	mil LLDPE HDPE PVC Other	
Liner Seams: Welded   Factory   Other	Volume:bbl Dime	ensions: Lx wx D
intent)  ☐ Drying Pad ☐ Above Ground Steel Tanks ☐	Workover or Drilling (Applies to activities which requests to activi	
4.		
Below-grade tank: Subsection I of 19.15.17.11	NMAC	
Volume: 120 bbl Type of fluid	i: Produced Water	
Tank Construction material: Steel		
Secondary containment with leak detection	Visible sidewalls, liner, 6-inch lift and automatic overflow	shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls	s only 🛮 Other <u>Visible sidewalls, vaulted, automatic hi</u>	igh-level shut off, no liner
Liner type: Thickness mil [	☐ HDPE ☐ PVC ☐ Other	
5. Alternative Method:		
	otions must be submitted to the Santa Fe Environmental Bu	urean office for consideration of approval
	mons must be submitted to the Santa Pe Environmental Bu	nead office for consideration of approvat.
Form C-144	Oil Conservation Division	shut-off igh-level shut off, no liner  ureau office for consideration of approval.  Page 1 of 5

Fencing: Subsection D of 19.15.17.11 NMAC (Ap.	oplies to permanent pits, temporary pits, and below-grade tanks)	
	rbed wire at top (Required if located within 1000 feet of a permanent resid	ence, school, hospital,
institution or church)  Four foot height, four strands of barbed wire even	renly spaced between one and four feet	
☑ Alternate. Please specify Four foot height, stee	el mesh field fence (hogwire) with pipe top railing	
7.		
	plies to permanent pits and permanent open top tanks)	
☐ Screen ☐ Netting ☒ Other <u>Expanded metal</u> ☐ Monthly inspections (If netting or screening is netting or screening)	<del>-</del>	
s.	not physically reasone)	
Signs: Subsection C of 19.15.17.11 NMAC		
12"x 24", 2" lettering, providing Operator's name	me, site location, and emergency telephone numbers	
⊠ Signed in compliance with 19.15.3.103 NMAC		
Please check a box if one or more of the following  Administrative approval(s): Requests must consideration of approval.	y are required. Please refer to 19.15.17 NMAC for guidance.  g is requested, if not leave blank: be submitted to the appropriate division district or the Santa Fe Environm  to the Santa Fe Environmental Bureau office for consideration of approva	
material are provided below. Requests regarding office or may be considered an exception which m	mpliance for each siting criteria below in the application. Recommenda changes to certain siting criteria may require administrative approval fr nust be submitted to the Santa Fe Environmental Bureau office for consi lease refer to 19.15.17.10 NMAC for guidance. Siting criteria does not	om the appropriate district deration of approval.
		☐ Yes ⊠ No
lake (measured from the ordinary high-water mark)	).	or playa ☐ Yes ☒ No
(Applies to temporary, emergency, or cavitation pit	ts and below-grade tanks)	on.
(Applies to permanent pits)		tion. Yes No
Within 500 horizontal feet of a private, domestic frewatering purposes, or within 1000 horizontal feet o	M Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  Diffect of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa ured from the ordinary high-water mark).  Diffect from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  Diffect from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  Diffect from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  Diffect from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  Diffect from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  Diffect from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  Diffect from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  Diffect of a private, domestic fresh water well or spring that less than five households use for domestic or stock urposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.  Diffect of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site or pr	
adopted pursuant to NMSA 1978, Section 3-27-3, a		
Within 500 feet of a wetland.		
Within the area overlying a subsurface mine.	p from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Written confirmation or verification or map     Within an unstable area.     Engineering measures incorporated into the Society; Topographic map	e design; NM Bureau of Geology & Mineral Resources; USGS; NM Geolo	ogical ☐ Yes ☒ No
Within a 100-year floodplain FEMA map		☐ Yes 🖾 No
Form C-144		
Form C-144	Oil Conservation Division	Page 2 of 5

¥1		
Temporary Pits, Emergency Pits, and Below-grade Tank Instructions: Each of the following items must be attached attached.		
<ul> <li>☐ Hydrogeologic Report (Below-grade Tanks) - based up</li> <li>☐ Hydrogeologic Data (Temporary and Emergency Pits)</li> <li>☐ Siting Criteria Compliance Demonstrations - based up</li> <li>☐ Design Plan - based upon the appropriate requirements</li> <li>☐ Operating and Maintenance Plan - based upon the appr</li> <li>☐ Closure Plan (Please complete Boxes 14 through 18, if and 19.15.17.13 NMAC</li> </ul>	- based upon the requirements of Paragraph on the appropriate requirements of 19.15.17. s of 19.15.17.11 NMAC ropriate requirements of 19.15.17.12 NMAC	(2) of Subsection B of 19.15.17.9 NMAC 10 NMAC
Previously Approved Design (attach copy of design)	API Number: o	or Permit Number:
Closed-loop Systems Permit Application Attachment Che Instructions: Each of the following items must be attached attached.  Geologic and Hydrogeologic Data (only for on-site clessing Criteria Compliance Demonstrations (only for onesign Plan - based upon the appropriate requirement Operating and Maintenance Plan - based upon the app Closure Plan (Please complete Boxes 14 through 18, i and 19.15.17.13 NMAC  Previously Approved Design (attach copy of design)	osure) - based upon the requirements of Para on-site closure) - based upon the appropriate s of 19.15.17.11 NMAC propriate requirements of 19.15.17.12 NMAC of applicable) - based upon the appropriate red	graph (3) of Subsection B of 19.15.17.9 requirements of 19.15.17.10 NMAC
	•	
Previously Approved Operating and Maintenance Plan		_ (Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to imp	piement waste removal for closure)	
Permanent Pits Permit Application Checklist: Subsection Instructions: Each of the following items must be attached attached.  Hydrogeologic Report - based upon the requirements of Siting Criteria Compliance Demonstrations - based upon the Institute Engineering Design Plans - based upon the Institute Dike Protection and Structural Integrity Design - based Leak Detection Design - based upon the appropriate relationship Liner Specifications and Compatibility Assessment - In Quality Control/Quality Assurance Construction and Inspection Plan - based upon the appropriate of Preeboard and Overtopping Prevention Plan - based upon Inspection Plan - based upon the appropriate requirements.	of Paragraph (1) of Subsection B of 19.15.17 on the appropriate requirements of 19.15.17.1 ppropriate requirements of 19.15.17.11 NML d upon the appropriate requirements of 19.15 equirements of 19.15.17.11 NMAC passed upon the appropriate requirements of 19.15 installation Plan propriate requirements of 19.15.17.12 NMAC point the appropriate requirements of 19.15.17.12 NMAC point the appropriate requirements of 19.15.17.12 NMAC pon the appropriate requirements of 19.15.17.12 NMAC pon the appropriate requirements of 19.15.17.12 NMAC pon the appropriate requirements of 19.15.17.19 nm Plan	7.9 NMAC .10 NMAC AC 5.17.11 NMAC 9.15.17.11 NMAC C 7.11 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes	14 through 18, in regards to the proposed c	losure plan.
Type: Drilling Workover Emergency Cavita Alternative Proposed Closure Method: Waste Excavation and Remo Waste Removal (Closed-loc On-site Closure Method (On	tion P&A Permanent Pit Below	v-grade Tank
Soil Backfill and Cover Design Specifications - based Upon the appropriate Envergetation Plan - Based Upon the appropriate Soil Backfill and Cover Design Specifications - based Upon the appropriate Re-vegetation Plan - based upon the appropriate requirements Site Reclamation Plan - based upon the appropriate requirements Site Reclamation Plan - based upon the appropriate recomments.	that the documents are attached. e requirements of 19.15.17.13 NMAC con the appropriate requirements of Subsection ds, drilling fluids and drill cuttings) upon the appropriate requirements of Subsection rements of Subsection I of 19.15.17.13 NMA	on F of 19.15.17.13 NMAC ction H of 19.15.17.13 NMAC
Form C-144	Oil Conservation Division	Page 3 of 5

16.		
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel To Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling facilities are required.		
•	al Facility Permit Number:	
	al Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur on o ☐ Yes (If yes, please provide the information below) ☐ No	or in areas that will not be used for future serv	ice and operations?
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specifications based upon the appropriate require Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19. Site Reclamation Plan - based upon the appropriate requirements of Subsection G of	15.17.13 NMAC	
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure provided below. Requests regarding changes to certain siting criteria may require admin considered an exception which must be submitted to the Santa Fe Environmental Bureau demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guida	istrative approval from the appropriate distr t office for consideration of approval. Justij	ict office or may be
Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained	ed 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	ed 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	ed from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	watercourse or lakebed, sinkhole, or playa	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in exist  Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	ence at the time of initial application.	☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in NM Office of the State Engineer - iWATERS database; Visual inspection (certification)	existence at the time of initial application.	Yes No
Within incorporated municipal boundaries or within a defined municipal fresh water well find adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtain	•	☐ Yes ☐ No
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspec	tion (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 Mi	neral Division	☐ Yes ☐ No
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology & Min Society; Topographic map	eral 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 follow by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirement Proof of Surface Owner Notice - based upon the appropriate requirements of Subsect Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 In Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsect Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cutting Soil Cover Design - based upon the appropriate requirements of Subsection H of 19. The Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19. The Site Reclamation Plan -	ts of 19.15.17.10 NMAC tion F of 19.15.17.13 NMAC te requirements of 19.15.17.11 NMAC te d upon the appropriate requirements of 19.1 NMAC ts of Subsection F of 19.15.17.13 NMAC tion F of 19.15.17.13 NMAC ngs or in case on-site closure standards cannot 15.17.13 NMAC	5.17.11 NMAC
	<del></del>	

Form C-144 Oil Conservation Division Page 4 of 5

n e e e e e e e e e e e e e e e e e e e	
Operator Application Certification: I hereby certify that the information submitted with this application is true, acc	urate and complete to the best of my knowledge and belief
Name (Print): Kim Champlin	Title: Environmental Representative
Signature: Kim Champlin	Date: 11-25-08
e-mail address: kim_champlin@xtoenergy.com	Telephone: (505) 333-3100
OCD Approval:  Permit Application (including closure plan)  Closure	Plan (only) OCD Conditions (see attachment)
OCD Representative Signature: Shelly Wells	Approval Date: 08/11/2022
Title: _Environmental Specialist-A	OCD Permit Number: Legacy BGT1
Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior The closure report is required to be submitted to the division within 60 days of section of the form until an approved closure plan has been obtained and the	r to implementing any closure activities and submitting the closure report.  f the completion of the closure activities. Please do not complete this
22. Closure Method: Waste Excavation and Removal On-Site Closure Method Alter If different from approved plan, please explain.	native Closure Method
23.  Closure Report Regarding Waste Removal Closure For Closed-loop System Instructions: Please indentify the facility or facilities for where the liquids, di two facilities were utilized.	
Disposal Facility Name:	Disposal Facility Permit Number:
Disposal Facility Name:	
Were the closed-loop system operations and associated activities performed on Yes (If yes, please demonstrate compliance to the items below) No	
Required for impacted areas which will not be used for future service and operation   Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ntions:
24.	
Closure Report Attachment Checklist: Instructions: Each of the following 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)	
	gitude NAD:
25.  Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure belief. I also certify that the closure complies with all applicable closure require	
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:
o da e e e e e e e e e e e e e e e e e e	

Form C-144 Oil Conservation Division Page 5 of 5

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 85210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

# State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505 ent Revised October 18, 199
Instructions on bac
Submit to Appropriate District O
State Lease - 4 Copie
Fee Lease - 3 Copie

AMENDED	REPORT
	TALL OILL

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# WELL LOCATION AND ACREAGE DEDICATION PLAT

								DILL	
Zn - 2	API Numb		,	<sup>2</sup> Pool Code			<sup>3</sup> Pool Nar	ne	
0000	4000	1057	<u></u>	71599			Basin Dai	cota	
Property	y Code				<sup>5</sup> Property N	lame			Vell Number
MAXI	<u>کی</u>				State Gas Co	m "BR"		ľ	#1F
7 OGRIE	No.				8 Operator N	lame		9	Elevation
1670	167	<u> </u>			XTO Energy	Inc.			5988' GR
				10	Surface Loc				2500 UK
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
G	2_	29N	10W		1965	North	1600	East	San Juan
			11 Bo	ttom Hole	Location If I	Different From	Surface		00.1 000.1
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line		F	
	İ		"			1401 BIT SOURT CITIE	reet from the	East/West line	County
12 Dedicated Acr	es <sup>13</sup> Joint	or Infill 14C	onsolidatio	n Code 15 Ord	ler No			<u> </u>	
328.24 N/2		I		0.0					
NO ALLO	YALA DY D	******							

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLID OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	7 OPERATOR CORPUS A STOLE
1965,	17 OPERATOR CERTIFICATION I hereby certify that the information contained hereix is true and complete to the best of my knowledge and beliff.
0 1600	Signature Jeffrey W Patton Printed Name Drilling Engineer Title 4/8/02 Date
FRECLIA DE COLEON. UIV	18 SURVEYOR CERTIFICATION"  I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  March 22, 1999
E CORPORTO	Date of Survey Signature and Seat of Professional Surveyer: ORIGINAL SURVEY ON FILE  NEACE C. EDWARDS  #6857 Certificate Number

Received by OCD: 4/20/2022 12:51:35 PM

A		Pit Permit	Client:	XTO Energy
Lodestar Service	es, Inc.		Project:	Pit Permits
PO Box 4465, Durang	*	Siting Criteria	Revised:	27-Oct-08
	, , , , , , , , , , , , , , , , , , , ,	Information Shee	t Prepared by:	Brooke Herb
API#:		3004531057	USPLSS:	T29N,R10W,S02G
Name:	STAT	E GAS COM 8R #1F	Lat/Long:	36.75603, -107.85009
Depth to groundwater:		50' - 100'	Geologic formation:	Nacimiento Formation
Distance to closest				
continuousiy flowing	2.01 mile	s NW of San Juan River		
watercourse:				
Distance to closest	351' E of	small tertiary drainage		
significant watercourse,		an River; 1.39 miles E of		
lakebed, playa lake, or		ne Canyon Wash		
sinkhoie:			Sail Tune	Entirele
Permanent residence,			Soil Type:	Entisols
schooi, hospitai,				
institution or church		No		
within 300'				
***************************************			Annual	
			Precipitation:	8.71 inches (Bloomfield)
Domestic fresh water			Precipitation	
weii or spring within		No	Notes:	no significant precip events
500'				
Any other fresh water				
well or spring within		No		
1000'				
Within incorporated			Attached	
municipal boundaries		No	Documents:	Groundwater report and Data; FEMA Flood Zone Map
Within defined			200011011931	
municipal fresh water		No		Aerial Photo, Topo Map, Mines Mills and Quarries Map
well field				
Wetland within 500'		No	Mining Activity:	
AA GYIGIIG AAIGIIII 300		140	willing wenaith.	
*****				3.11 miles NW of Materials Pit
Within unstable area		No		
Within 100 year flood				
piain	No- F	EMA Flood Zone 'X'		
higin				
Additional Notes:		········		
Additional Hotes.				

# STATE GAS COM BR #IF Below Ground Tank Siting Criteria and Closure Plan

# Well Site Location

Legals: T29N, R10W, Section 02, Quarter Section G Latitude/Longitude: approximately 36.75603, -107.85009

County: San Juan County, NM

General Description: near the San Juan River

# General Geology and Hydrology

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

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

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

The climate of the region is arid, averaging just over 8 inches of rainfall annually. As is typical of the southwestern United States monsoonal weather patterns, most precipitation falls from August through October. The heaviest rainfall occurs in the summer in isolated, intense cloudbursts. November through June is relatively dry. Snow generally falls from December to mid-February and averages less than one-half inch in depth. However, most recharge occurs during the winter months during snowmelt periods from the upper elevations (Western Regional Climate Center www.wrcc.dri.edu).

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

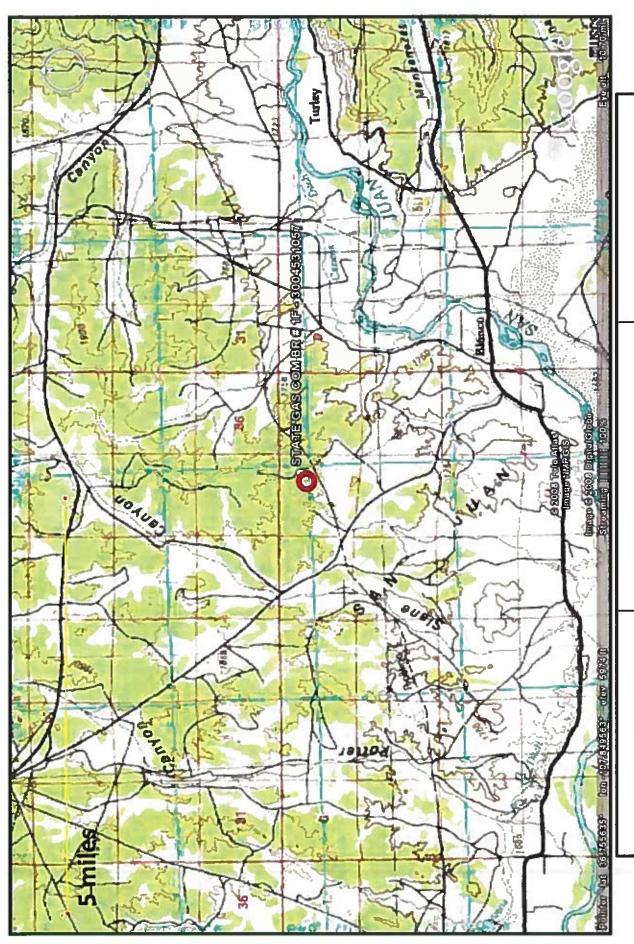
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# Site Specific Hydrogeology

Depth to 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.

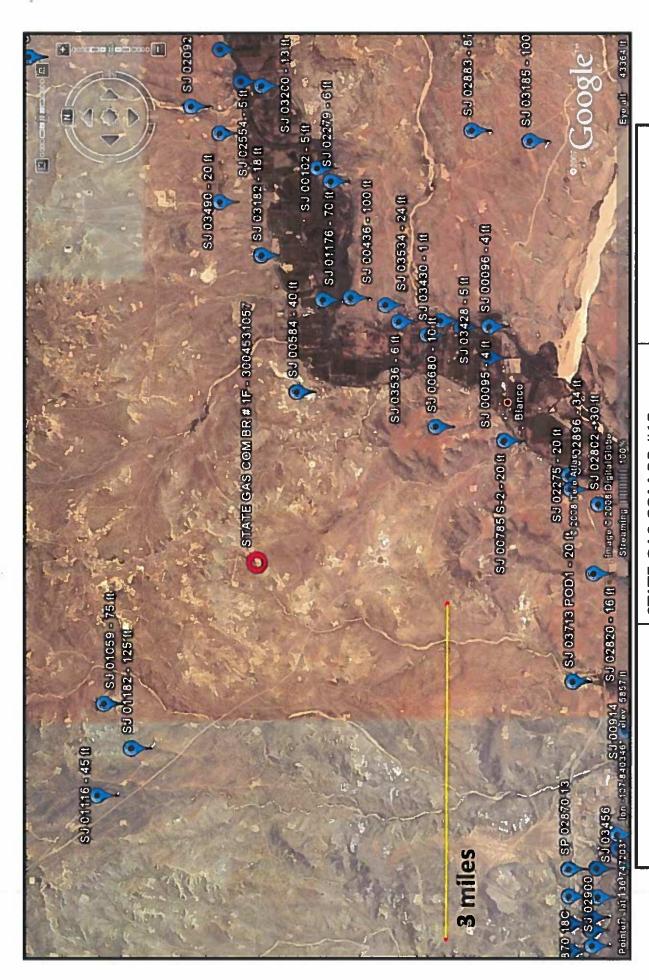
Local aquifers include sandstones within the Nacimiento Formation, which ranges from 0 to 1000 feet deep in this area, as well as shallow aquifers within Quaternary alluvial deposits (Stone et al., 1983). The 1000-foot depth range for Nacimiento aquifers covers an area over 20 miles wide, and depth decreases 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 two miles to the northwest of the San Juan River, and is approximately 420 feet higher in elevation (Google Earth).

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. A map showing the location of wells in reference to the proposed pit location is also included. Pinpoints show locations of wells and the labels for each pinpoint indicate depth to groundwater in feet. Wells are mostly clustered to the east – southeast along the San Juan River. Depth to groundwater within the nearby wells ranges from 4 feet to 125 feet below ground surface. The closest well to the proposed site is located approximately 1.59 miles to the southeast, and is approximately 335 feet lower in topographic elevation (Google Earth). Depth to groundwater within the well is 40 feet below ground surface. A well to the northwest is approximately 45 feet higher in elevation then the proposed site, and has a depth to groundwater of 75 feet below ground surface. Another well to the northwest is approximately 115 feet higher in elevation then the proposed site, and has a depth to groundwater of 45 feet below ground surface.



STATE GAS COM BR #1F San Juan County, NM T29N, R10W, S02G Lodestar Services, Inc Durango, CO 81302 PO Box 4465

Topographic Map



Lodestar Services, Inc STATE GAS C PO Box 4465 T29N, R10M Durango, CO 81302 San Juan Co

STATE GAS COM BR #1F T29N, R10W, S02G San Juan County, NM

iWaters Groundwater Data Map

Township: | 26hRange: | 10v Sections: |

# WATER COLUMN REPORT 10/27/2008

| feet)     |            |  |   |  |  |   |  |  |  |  |  
   
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# WATER COLUMN REPORT 10/24/2008

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# WATER COLUMN REPORT 10/24/2008

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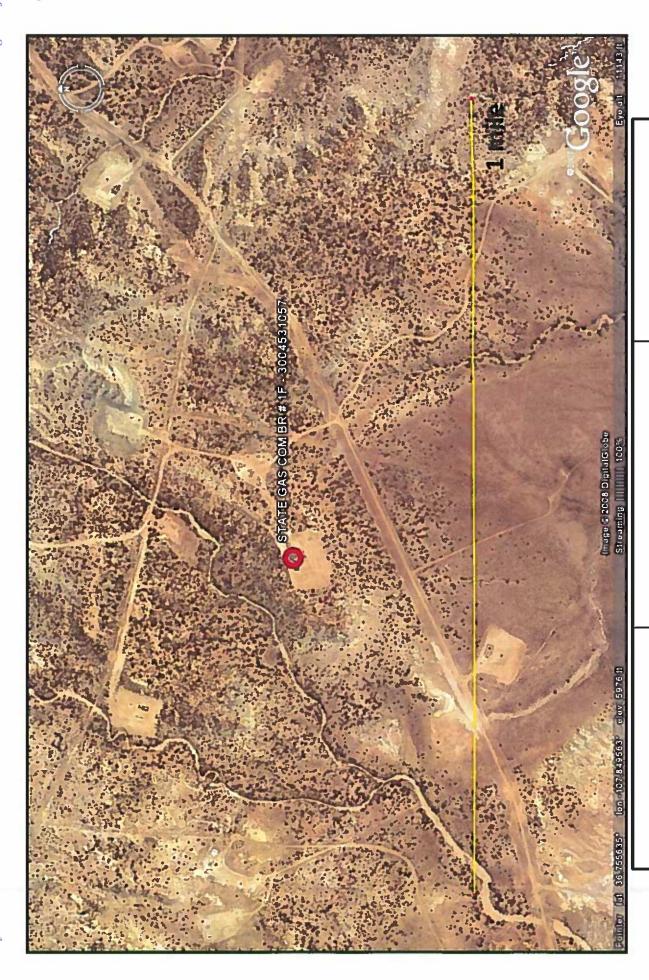
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# WATER COLUMN REPORT 10/27/2008

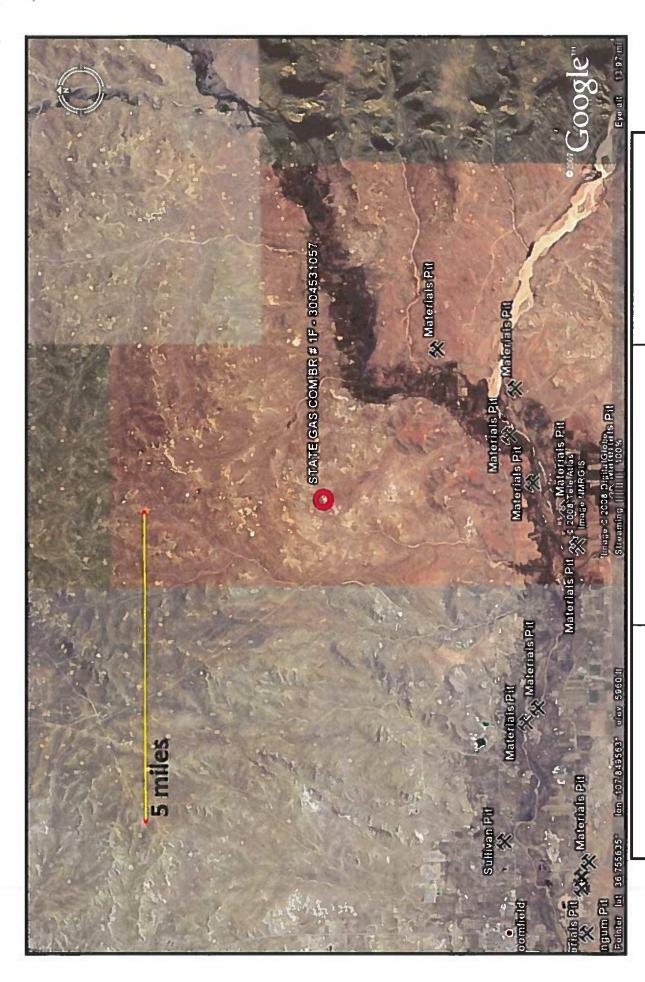
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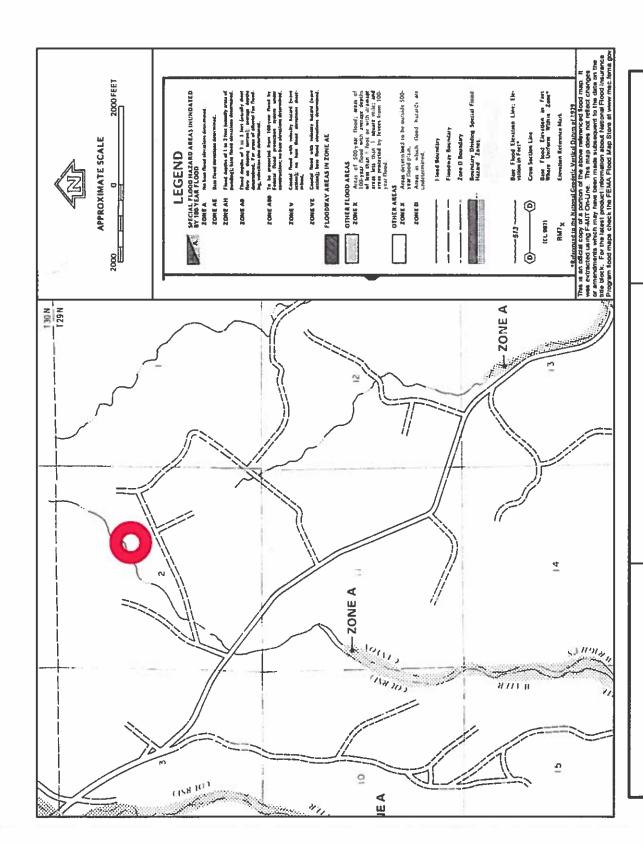
Lodestar Services, Inc
PO Box 4465
Durango, CO 81302
San Juan County, NM

**Aerial Photograph** 



Lodestar Services, Inc
PO Box 4465
Durango, CO 81302
STATE GAS COM BR #1F
T29N, R10W, S02G
San Juan County, NM

Mines, Mills, and Quarries Map



**FEMA Flood Zone Map** 

Lodestar Services, Inc Durango, CO 81302 PO Box 4465

STATE GAS COM BR #1F San Juan County, NM T29N, R10W, S02G

# 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.

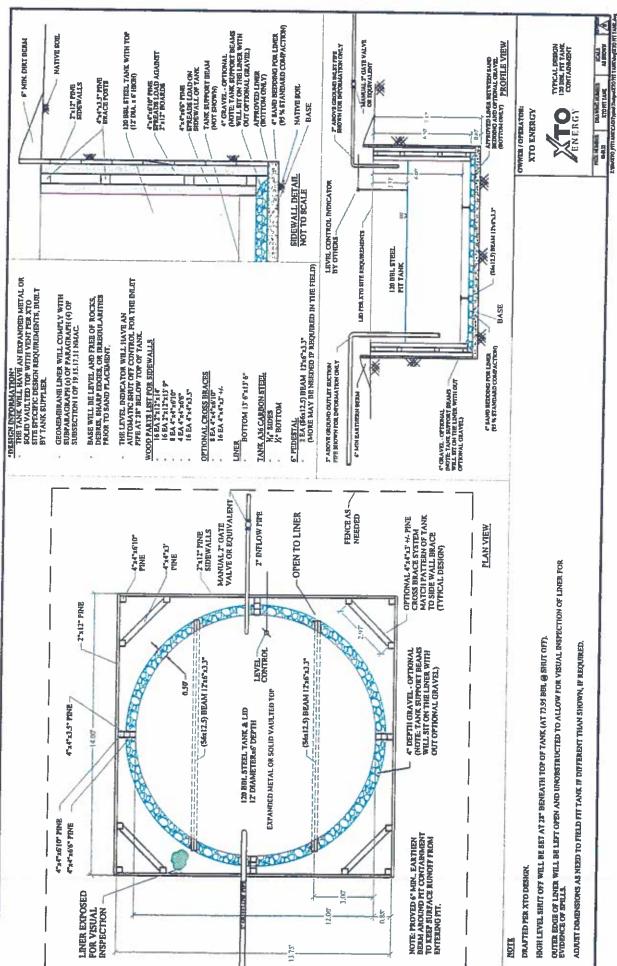
# General Plan

- 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 ½ 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 \( \frac{1}{2} \) bottom. (See attached drawing).
- 6. The below-grade tank system will have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom. Sand bedding (4") will be placed on top of a level foundation to ensure prevention of punctures, cracks or indentations of the liner or tank bottom.
- 7. XTO will construct a berm and/or diversion ditch in a manner that prevents the collection of surface water run-on. Below-grade tanks will be equipped with automatic high level shut-off devices as well as manually operated shut-off valves. (See attached drawing).
- 8. XTO will construct and use below-grade tanks that do not have double walls. The below-grade tank sidewalls will be open for visual inspection for leaks. The sidewalls of the cellar will be constructed with 2" X 12" pine sidewalls and 4" X 4" pine brace posts. The below-grade tank

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

bottom will be elevated a minimum of 6" above the underlying ground surface and the below-grade tank will be underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected. (See attached drawing).

- XTO will equip below-grade tanks designed in this manner with a properly functioning automatic high-level shut-off control device and manual controls to prevent overflows. (See attached drawing).
- 10. XTO will demonstrate to the OCD that the geomembrane liner complies with the specifications of Subparagraph (a) of Paragraph (4) of Subsection I of 19.15.17.11 NMAC and obtain approval from OCD prior to the installation of the design. The geomembrane liner shall have a hydraulic conductivity no greater than 1 x 10-9 cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidics and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A. (See attached drawing).
- 11. The general specifications for design and construction are attached.



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

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

# General Plan

- 1. XTO will operate and maintain below-grade tanks to contain liquids and sotids, maintain the integrity of the liner and secondary containment system, prevent contamination of fresh water and protect public health and the environment. Fluid levels will be monitored weekly and high levels will be removed as necessary. Monthly inspections will be conducted to monitor integrity of below-grade tank systems and below-grade tanks will be equipped with automatic high-level shut-off devices.
- 2. XTO will not allow below-grade tanks to overflow and will use berms and/or diversion ditch to prevent surface run on to enter the below-grade tank. Below-grade tanks will be equipped with automatic high-level shut-off control devices as well as manually operated shut-off valves. See attached drawing for vault design and placement of diversion berms and shut-off devices.
- XTO will continuously remove any visible or measurable layer of oil from the fluid surface of below-grade tanks in order to prevent significant accumulation of oil.
  - 4. XTO will inspect the below-grade tank monthly and maintain written records for five years. Monthly inspections will consist of documenting the following: (see attached template),

Well Name
API #
Sec., Twn., Rng.
XTO Inspector's name
Inspection date and time
Visible tears in liner
Visible signs of tank overflow
Collection of surface run on
Visible layer of oil
Visible signs of tank leak
Estimated freeboard

- 5. XTO will maintain adequate freeboard to prevent over topping of the below-grade tank. High level shut-off devices control the freeboard at an average of 28" beneath the top of the tank.
- XTO will not discharge into or store any hazardous waste in any below-grade tank.
- If a below-grade tank develops a leak, or if any penetration of a below-grade tank occurs below the liquids surface, XTO will remove all liquids above the damage or leak line within 48 hours,

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General Maintenance and Operating Plan
For Below-Grade Tanks
Page 2

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

Well Name:  Legals  XTO Inspector's Name Name		MONT Time	Township:  Any visible liner tears (Y/N) ription:	Township:  Any visible signs of surface surface surface surface (Y/N) tank overflows (Y/N) tun on (Y/N) of oil (Y/N) intermediate signs of surface sur	API No.: Range: Surface run on (Y/N)	Visible layer of oil (Y/N)	Any visible signs of a tank leak (Y/N)	Freeboard Est, (ft)
	·							

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

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

# General Plan

- XTO will close below-grade tanks within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
- XTO will close a below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.
- 3. XTO will close a permitted below-grade tank within 60 days of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The closure report will be filed on form C-144.
- 4. XTO will remove liquids and sludge from below-grade tanks prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:

Envirotech Permit No. NM01-0011 and IEI Permit No. NM 01-0010B
Soil contaminated by exempt petroleum hydrocarbons
Produced sand, pit sludge and contaminated buttoms from storage of exempt wastes

Basin Disposal Permit No. NM01-005 Produced water

- 5. XTO will remove the below-grade tank and dispose of it in a division approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office has approved prior to removal. Any associated liners will be removed, properly cleaned and disposed of per 19.15.9.712 NMAC at San Juan County Landfill. Documentation of the final disposition will be included in the closure report.
- XTO will remove any on-site equipment associated with a below-grade tank unless the equipment is required for some other purpose.
- 7. XTO will test the soils beneath the below-grade tank to determine whether a release has occurred. At a minimum 5 point composite sample will be collected along with individual grab samples from any area that is wet, discolored or showing other evidence of a release. Samples will be

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XTO Energy Inc.
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General Closure Plan
For Below-Grade Tanks
Page 2

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

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

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

- 11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 12. A minimum of 4 feet of cover shall be achieved and the cover shall include 1 foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. Soil cover will be constructed to the site's existing grade and ponding of water and erosion of the cover material will be prevented with drainage control, natural drainages and silt traps where needed.
- XTO will seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

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San Juan Basin (Northwest New Mexico)
General Closure Plan
For Below-Grade Tanks
Page 3

- 14. All closure activities will include proper documentation and be available for review upon request and will be submitted in closure report form to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on form C-144 and incorporate the following:
  - Proof of closure notice to division and surface owner,
  - 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,
  - Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable);

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viii. Photo documentation of the site reclamation.

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

QUESTIONS

Action 100258

# **QUESTIONS**

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	100258
	Action Type:
	[C-144] Legacy Below Grade Tank Plan (C-144LB)

### QUESTIONS

Facility and Ground Water	
Please answer as many of these questions as possible in this group. More infor	mation will help us identify the appropriate associations in the system.
Facility or Site Name	State Gas Com BR 1F
Facility ID (f#), if known	Not answered.
Facility Type	Below Grade Tank - (BGT)
Well Name, include well number	State Gas Com BR 1F
Well API, if associated with a well	3004531057
Pit / Tank Type	Not answered.
Pit / Tank Name or Identifier	Not answered.
Pit / Tank Opened Date, if known	Not answered.
Pit / Tank Dimensions, Length (ft)	Not answered.
Pit / Tank Dimensions, Width or Diameter (ft)	Not answered.
Pit / Tank Dimensions, Depth (ft)	Not answered.
Ground Water Depth (ft)	Not answered.
Ground Water Impact	Not answered.
Ground Water Quality (TDS)	Not answered.

Below-Grade Tank	
Subsection I of 19.15.17.11 NMAC	
Volume / Capacity (bbls)	120
Type of Fluid	Produced Water
Pit / Tank Construction Material	Steel
Secondary containment with leak detection	Not answered.
Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Not answered.
Visible sidewalls and liner	Not answered.
Visible sidewalls only	Not answered.
Tank installed prior to June 18. 2008	True
Other, Visible Notation. Please specify	visible sidewalls, vaulted automatic high level shutoff, no liner
Liner Thickness (mil)	Not answered.
HDPE (Liner Type)	Not answered.
PVC (Liner Type)	Not answered.
Other, Liner Type. Please specify (Variance Required)	Not answered.

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

**QUESTIONS** (continued)

QUESTIONS, Page 2

Action	100258

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street Houston, TX 77002	Action Number: 100258
Troublent, TX TT 662	Action Type:
	[C-144] Legacy Below Grade Tank Plan (C-144LB)
QUESTIONS	,
Fencing	
Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tank	s)
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)	Not answered.
Four foot height, four strands of barbed wire evenly spaced between one and four feet	Not answered.
Allowed Freedom Bloom and the Administration of Bernative II	
Alternate, Fencing. Please specify (Variance Required)	4' hogwire
Netting	
Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
Screen	Not answered.
Netting	Not answered.
Other, Netting. Please specify (Variance May Be Needed)	expanded metal or vaulted ten
Other, rectang. Flease speedily (Variance May be receded)	expanded metal or vaulted top
Signs	
Subsection C of 19.15.17.11 NMAC (If there are multiple operators at a site, each operator must have	e their own sign in compliance with Subsection C of 19 15 17 11 NMAC )
12"x 24", 2" lettering, providing Operator's name, site location, and emergency	arien own sign in compliance with Subsection 6 of 19.10.11.11 NWAG.)
telephone numbers	Not answered.
Signed in compliance with 19.15.16.8 NMAC	True
Variances and Exceptions	
Justifications and/or demonstrations ofequivalency are required. Please refer to 19.15.17 NMAC for Please check a box if one or more of the following is requested, if not leave blank:	guidance.
Variance(s):	
Requests must be submitted to the appropriate division district for consideration of approval.	Not answered.
Exception(s):	
Requests must be submitted to the Santa Fe Environmental Bureau office for	Not answered.
consideration of approval	

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

QUESTIONS, Page 3

Action 100258

QUESTIONS (continued)	
Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	100258

# Action Type: [C-144] Legacy Below Grade Tank Plan (C-144LB)

### QUESTIONS

# Siting Criteria (regarding permitting) 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.

Siting Criteria, General Siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank	No
NM Office of the State Engineer - iWATERS database search	True
USGS	Not answered.
Data obtained from nearby wells	Not answered.

Siting Criteria, Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lakebed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark)	No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption	No

roposed Closure Method		
Below-grade Tank	Below Grade Tank - (BGT)	
Waste Excavation and Removal	True	
Alternate Closure Method. Please specify (Variance Required)	Not answered.	

Operator Application Certification		
Registered / Signature Date	11/25/2008	

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

ACKNOWLEDGMENTS

Action 100258

# **ACKNOWLEDGMENTS**

Operator:	OGRID:
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1111 Travis Street	Action Number:
Houston, TX 77002	100258
	Action Type:
	[C-144] Legacy Below Grade Tank Plan (C-144LB)

### **ACKNOWLEDGMENTS**

V	I acknowledge that I have received prior approval from the OCD to submit documentation of a legacy below-grade tank on behalf of my operator.
V	I hereby certify that the information submitted with this documentation is true, accurate and complete to the best of my knowledge and belief.

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

CONDITIONS

Action 100258

# **CONDITIONS**

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1111 Travis Street	Action Number:
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### CONDITIONS

Created By	Condition	Condition Date
swells	None	8/11/2022