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
2008 DEC 12 PM 4 01

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.

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

Proposed Alternative Method Permit o	<u>r Closure Plan A</u>	Application						
Type of action: Existing BGT Closure of a pit, closed-loop system, below Modification to an existing permit Closure plan only submitted for an existing below-grade tank, or proposed alternative method	ow-grade tank, or prop	osed alternative method						
Instructions: Please submit one application (Form C-144) per individual pit,	closed-loop system, belo	w-grade tank or alternative request						
ease be advised that approval of this request does not relieve the operator of liability should extraorder. Nor does approval relieve the operator of its responsibility to comply with any of								
i. Operator: XTO Energy, Inc.	OGRID #:	5380						
Address: #382 County Road 3100, Aztec, NM 87410								
Facility or well name:MARTIN GAS COM B# 1								
API Number: 30-045-07051 OCD Permit 1	Number:							
J/L or Qtr/QtrG Section31 Township28N Range10W County: San Juan								
Center of Proposed Design: Latitude <u>36.6221</u> Longitude <u>107.93337</u> NAD: □1927 ⊠ 1983								
Surface Owner: Federal State Private Tribal Trust or Indian Allotment								
□ Pit: Subsection F or G of 19.15.17.11 NMAC □ Cemporary: □ Drilling □ Workover □ Permanent □ Emergency □ Cavitation □ P&A □ Lined □ Unlined Liner type: Thickness	:bbl Dimer	nsions: Lx Wx D ire prior approval of a permit or notice of						
☑ Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume: 120 bbl Type of fluid: Produced Water Fank Construction material: Steel ☐ Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift ☐ Visible sidewalls and liner Visible sidewalls only Other Visible sidewal Liner type: Thickness mil HDPE PVC Other G. Alternative Method:	ls, vaulted, automatic hig	zh-level shut off, no liner						
Submittal of an exception request is required. Exceptions must be submitted to the San	ta Fe Environmental Bur	eau office for consideration of approval.						

Received by OCD: 3/22/2022 9:36:49 AM

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent	t pits, temporary pits, and helow-grade tanks)								
Chain link, six feet in height, two strands of barbed wire at top (Re		ol, hospital.							
institution or church)									
Four foot height, four strands of barbed wire evenly spaced between one and four feet									
Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing									
7.	with and manuscript and the dayles								
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent ☐ Screen ☐ Netting ☒ Other Expanded metal or solid vaulted to									
Monthly inspections (If netting or screening is not physically feasi									
s. Signs: Subsection C of 19.15.17.11 NMAC									
12"x 24", 2" lettering, providing Operator's name, site location, and	nd emergency telephone numbers								
☑ Signed in compliance with 19.15.3.103 NMAC									
9.									
Administrative Approvals and Exceptions:	200 10 10 15 17 NIMA C 6								
Justifications and/or demonstrations of equivalency are required. Please check a box if one or more of the following is requested, if no									
Administrative approval(s): Requests must be submitted to the		u office for							
consideration of approval. Exception(s): Requests must be submitted to the Santa Fe En	vironmental Bureau office for consideration of approval.								
10.									
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each material are provided below. Requests regarding changes to certain office or may be considered an exception which must be submitted to Applicant must attach justification for request. Please refer to 19.1: above-grade tanks associated with a closed-loop system.	siting criteria may require administrative approval from the app o the Santa Fe Environmental Bureau office for consideration o	propriate district f approval.							
Ground water is less than 50 feet below the bottom of the temporary p NM Office of the State Engineer - iWATERS database search		☐ Yes ⊠ No							
Within 300 feet of a continuously flowing watercourse, or 200 feet of lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the pro-		☐ Yes ⊠ No							
Within 300 feet from a permanent residence, school, hospital, instituti (Applies to temporary, emergency, or cavitation pits and below-grade - Visual inspection (certification) of the proposed site; Aerial p	ion, or church in existence at the time of initial application. etanks)	☐ Yes ☑ No ☐ NA							
Within 1000 feet from a permanent residence, school, hospital, institu (Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial p	tion, or church in existence at the time of initial application.	☐ Yes ☐ No ☑ NA							
Within 500 horizontal feet of a private, domestic fresh water well or s watering purposes, or within 1000 horizontal feet of any other fresh water NM Office of the State Engineer - iWATERS database search	pring that less than five households use for domestic or stock vater well or spring, in existence at the time of initial application.	☐ Yes ☑ No							
Within incorporated municipal boundaries or within a defined municipal adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Western Science 1988.		☐ Yes ⊠ No							
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topograph	ic 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 EM	INRD-Mining and Mineral Division	☐ Yes 🛛 No							
Within an unstable area. - Engineering measures incorporated into the design; NM Bure Society; Topographic map	au of Geology & Mineral Resources; USGS; NM Geological	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No							
Within a 100-year floodplain FEMA map		☐ Yes ⊠ No							
Form C-144 Oil (Conservation Division Page 2 o	r5							
		The second secon							

Temporary Pits, Emergency Pits, and Below-grade Tanks Instructions: Each of the following items must be attached attached. Hydrogeologic Report (Below-grade Tanks) - based up	to the application. Please indicate, by a ch on the requirements of Paragraph (4) of Sub	section B of 19.15.17.9 NMAC								
 ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC 										
Previously Approved Design (attach copy of design)	.PI Number: o	r Permit Number:								
12. 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 clo Siting Criteria Compliance Demonstrations (only for o Design Plan - based upon the appropriate requirements Operating and Maintenance Plan - based upon the appr Closure Plan (Please complete Boxes 14 through 18, if and 19.15.17.13 NMAC	sure) - based upon the requirements of Paragon-site closure) - based upon the appropriate of 19.15.17.11 NMAC repriate requirements of 19.15.17.12 NMAC	graph (3) of Subsection B of 19.15.17.9 requirements of 19.15.17.10 NMAC								
Previously Approved Design (attach copy of design)	API Number:									
☐ Previously Approved Operating and Maintenance Plan										
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)										
Siting Criteria Compliance Demonstrations - based up Climatological Factors Assessment Certified Engineering Design Plans - based upon the a Dike Protection and Structural Integrity Design - based Leak Detection Design - based upon the appropriate re Liner Specifications and Compatibility Assessment - b Quality Control/Quality Assurance Construction and In Operating and Maintenance Plan - based upon the appr	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									
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 Cavitat	tion P&A Permanent Pit Below									
☐ In-place Burial	p systems only) ly for temporary pits and closed-loop system ☐ On-site Trench Burial	ns) Fe Environmental Bureau for consideration)								
Waste Excavation and Removal Closure Plan Checklist: closure plan. Please indicate, by a check mark in the box, to Protocols and Procedures - based upon the appropriate Confirmation Sampling Plan (if applicable) - based up Disposal Facility Name and Permit Number (for liquid Soil Backfill and Cover Design Specifications - based Re-vegetation Plan - based upon the appropriate requir Site Reclamation Plan - based upon the appropriate rec	(19.15.17.13 NMAC) Instructions: Each of the documents are attached. requirements of 19.15.17.13 NMAC on the appropriate requirements of Subsections, drilling fluids and drill cuttings) upon the appropriate requirements of Subsections of Subsecti	on F of 19.15.17.13 NMAC								
Form C-144	Oil Conservation Division	Page 3 of 5								

	s That Utilize Above Ground Steel Tanks or Haul-off E ties for the disposal of liquids, drilling fluids and drill cut								
Disposal Facility Name:	Disposal Facility Permit N	lumber:							
Disposal Facility Name:	Disposal Facility Permit N	lumber:							
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations Yes (If yes, please provide the information below) No Required for impacted areas which will not be used for future service and operations:									
Soil Backfill and Cover Design Specification Re-vegetation Plan - based upon the appropr	I for future service and operations: ns based upon the appropriate requirements of Subsectio iate requirements of Subsection I of 19.15.17.13 NMAC opriate requirements of Subsection G of 19.15.17.13 NMA		C						
provided below. Requests regarding changes to co	nstration of compliance in the closure plan. Recommend ertain siting criteria may require administrative approval to the Santa Fe Environmental Bureau office for conside	from the appropriate distr	rict office or may be						
Ground water is less than 50 feet below the bottom - NM Office of the State Engineer - iWATE	of the buried waste. RS database search; USGS; Data obtained from nearby wel	lls	Yes No						
Ground water is between 50 and 100 feet below the - NM Office of the State Engineer - iWATEI	bottom of the buried waste RS database search; USGS; Data obtained from nearby wel	lls	Yes No						
Ground water is more than 100 feet below the botto - NM Office of the State Engineer - iWATEI	om of the buried waste. RS database search; USGS; Data obtained from nearby wel	lls	☐ Yes ☐ No ☐ NA						
Within 300 feet of a continuously flowing watercoulake (measured from the ordinary high-water mark) Topographic map; Visual inspection (certif		ebed, sinkhole, or playa	Yes No						
Within 300 feet from a permanent residence, schoo - Visual inspection (certification) of the prop	l, hospital, institution, or church in existence at the time of cosed site; Aerial photo; Satellite image	initial application.	Yes No						
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance									
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									
Within 500 feet of a wetland US Fish and Wildlife Wetland Identificatio	n 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	o from the NM EMNRD-Mining and Mineral Division		☐ Yes ☐ No						
Within an unstable area. - Engineering measures incorporated into the Society; Topographic map	e design; NM Bureau of Geology & Mineral Resources; US	GGS; NM Geological	☐ Yes ☐ No						
Within a 100-year floodplain FEMA map			☐ Yes ☐ No						
by a check mark in the box, that the documents ar Siting Criteria Compliance Demonstrations - Proof of Surface Owner Notice - based upon Construction/Design Plan of Burial Trench (Construction/Design Plan of Temporary Pit (Protocols and Procedures - based upon the al Confirmation Sampling Plan (if applicable) - Waste Material Sampling Plan - based upon Disposal Facility Name and Permit Number Soil Cover Design - based upon the appropri Re-vegetation Plan - based upon the appropri	MAC) Instructions: Each of the following items must be a treattached. • based upon the appropriate requirements of 19.15.17.10 N the appropriate requirements of Subsection F of 19.15.17. (if applicable) based upon the appropriate requirements of (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC • based upon the appropriate requirements of Subsection F of the appropriate requirements of Subsection F of 19.15.17.1 (for liquids, drilling fluids and drill cuttings or in case on-sate requirements of Subsection H of 19.15.17.13 NMAC in the appropriate requirements of Subsection I of 19.15.17.13 NMAC oppriate requirements of Subsection G of 19.15.17.13 NMAC	IMAC 13 NMAC 19.15.17.11 NMAC priate requirements of 19. of 19.15.17.13 NMAC 13 NMAC site closure standards cannot	15.17.11 NMAC						
Form C-144	Oil Conservation Division	Page 4 o	f 5						

Operator Application Certification:	
I hereby certify that the information submitted with this application is true, ac	ccurate 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
C-mail address. Kill Champing Atochergy Com	Telephone. 1909/999-9-100
OCD Approval: Termit Application (including closure plan) Closur	re Plan (only) OCD Conditions (see attachment)
OCD Representative Signature: <u>Victoria Venegas</u>	Approval Date: 05/11/2022
Title: Environmental Specialist	OCD Permit Number:BGT1
21. Closure Report (required within 60 days of closure completion): Subsect Instructions: Operators are required to obtain an approved closure plan pri The closure report is required to be submitted to the division within 60 days section of the form until an approved closure plan has been obtained and the	ior to implementing any closure activities and submitting the closure report. of the completion of the closure activities. Please do not complete this
22.	
Closure Method: Waste Excavation and Removal On-Site Closure Method Alt If different from approved plan, please explain.	ernative Closure Method Waste Removal (Closed-loop systems only)
23. Closure Report Regarding Waste Removal Closure For Closed-loop Syste Instructions: Please indentify the facility or facilities for where the liquids, two facilities were utilized.	ems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: drilling fluids and drill cuttings were disposed. Use attachment if more than
Disposal Facility Name:	
Disposal Facility Name:	
Were the closed-loop system operations and associated activities performed on Yes (If yes, please demonstrate compliance to the items below)	
Required for impacted areas which will not be used for future service and ope Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	erations:
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) On-site Closure Location: Latitude Lo	re)
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 required Name (Print):	irements and conditions specified in the approved closure plan. Title:
Signature:	Date:
e-mail address:	Telephone:
A Company of the Comp	

Form C-144 Oil Conservation Division Page 5 of 5

Well Location and Among Delication Page

ي دون ، Albh ن ما، خسطالسينة المسابقين الذي THE GAS GATE ASM Feet From EC 725 1 the 1740 1 🖟 Latt Letter 🔀 28 LURCH HAND 10 HEST Fam. Fr. re flounty 31 CVA G. L. Elevation REPORT LATER Line " off at ! A : en be ... Acres Name of Producing Formation DAKOTA P. ... BASIN DAKOTA 1. In the Operator the only owner in the follows, as were astronomed the play out but

. No. X

2 If the Manager to prestron rate is that he are a set of All the same and the same tion agreements being prepared. All parties have agreed to join in the drilling of the persons we to happy has a transmer and about respective there on serves

16.14(

I'm death was

Section is.

Into is to certify that the information in Section & shove to true and complete to the test of my knowledge and belief.

PAN AMERICAN PETROLEUM CORP. the die of Indiana

F. H. Hollingsworth Representative.

P. Q. Box 480

'Address:

Farmington, New Mexico

Ref: GEO dated 19 July 1915

a to Maria

SEP 28 .964 OIL CON. COM.

DIST. 3

SF 077 315 Sec. 31

foure, his lietuages must be from ourse acculation in accura-

fire is a common the above the was prepared from most occur a count are a medicity many action of supervision and that the same we true out to except the her tends it my kapalodge and belief.

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September 4, 1964 Date Sur aged

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2000 1130 ICC

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Received by OCD: 3/22/2022 9:36:49 AM

1 .ct ...

Lodestar Service P0 Box 4465, Durang	•	Pit Permit Siting Criteria		Client: Project: Revised:	XTO Energy Pit Permits 23-Oct-08
FO DOX 4405, Durang	9, CU 013UZ	Information She	et _	Prepared by:	Devin Hencmann
API#:[3004507051		USPLSS:	28N, 10W, 31G
Name:	MAR	TIN GAS COM B #1		Lat/Long:	36.6221/-107.93337
Depth to groundwater:		>100'		Geologic formation:	Naciemento
Distance to ciosest continuously flowing watercourse:	5.76 mi	les N to the 'San Juan River'			
Distance to ciosest significant watercourse, lakebed, playa lake, or sinkhole:	1.18 mi	les W to Kutz Canyon wash			
				Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'		No			
				Annuai Precipitation:	Bloomfield: 8.71", Farmington: 8.21", Otis: 10.41"
Domestic fresh water well or spring within 500'		No		Precipitation Notes:	Historical daily max: Bloomfield (4.19")
Any other fresh water well or spring within 1000'		No			
Within incorporated municipal boundaries		No		Attached Documents:	27N 11W i-Waters pdf,27N 12W i-Waters pdf
Within defined municipal fresh water well field		No			Topo map pdf, Aerial pdf, Mines and Quarries Map pdf,i-Waters Ground Water Data Map pdf, FEMA flood zone map pdf
Wetland within 500'		No		ining Activity:	None
Within unstable area		No]		
Within 100 year flood piain	No	o-FEMA Zone 'X'			
Additional Notes:					
	-	'S to concrete lined rrigation canal			

MARTIN GAS COM B #1 Below Ground Tank Hydrogeologic Report for Siting Criteria

General Geology and Hydrology

The San Juan Basin is a typical Rocky Mountain basin with a gently dipping southern flank and a steeply dipping northern flank. Asymmetrically layered Tertiary sandstones and shales, along with Quaternary alluvial deposits, dominate surficial geology (Dane and Bachman, 1965). The proposed pit location will be located in the southernmost Kutz Canyon region of the San Juan Basin. The predominant geologic formation is the Nacimiento Formation of Tertiary age, which underlies surface soils and is often exposed (Dane and Bachman, 1965). Deposits of Quaternary alluvial and aeolian sands occur prominently near the surface of the area, especially near streams and washes.

Cretaceous and Tertiary sandstones, as well as Quaternary alluvial deposits serve as the primary aquifers in the San Juan basin (Stone et al., 1983). In most of the proposed area, the Nacimiento Formation lies at the surface and grades into the Animas Formation to the west. Thickness of the Nacimiento ranges from 418 to 2232 feet (Stone et al., 1983). Aguifers 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 aguifers flows toward the San Juan River.

The prominent soil type at the proposed site are entisols and aridisols, which are defined as soils that exhibit little to no any profile development (www.emnrd.state.nm.us). 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 sudden influx of water from storm events easily erodes the soils that cover the area and prohibits effective recharge to the underlying aquifers.

Dry and arid weather further prohibit active recharge. The climate of the region is arid, averaging 8 to 12 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). However, vegetation is very sparse and discontinuous.

Site Specific Hydrogeology

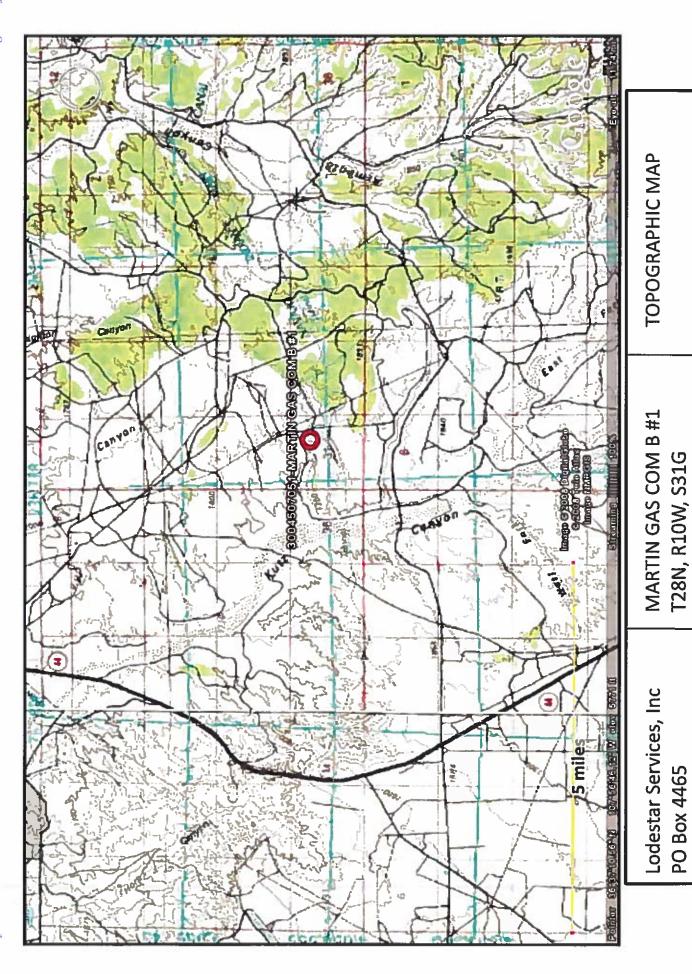
Depth to groundwater is estimated to be greater than 100'. This estimation is based on data from Stone and others (1983), the USGS Groundwater Atlas of the United States and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography and proximity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

Beds of water-yielding sandstone are present in the Nacimiento Formation, which are fluvial in origin and are interbedded with siltstone, shale and coal. Porous sandstones form the principal aquifers, while relatively impermeable shales form confining units between the aquifers (Stone et al., 1983). Local aquifers exist within the Nacimiento Formation at depth s greater than 100 feet and thicknesses of the aquifer can be up to 3500 feet (USGS, Groundwater Atlas of the US).

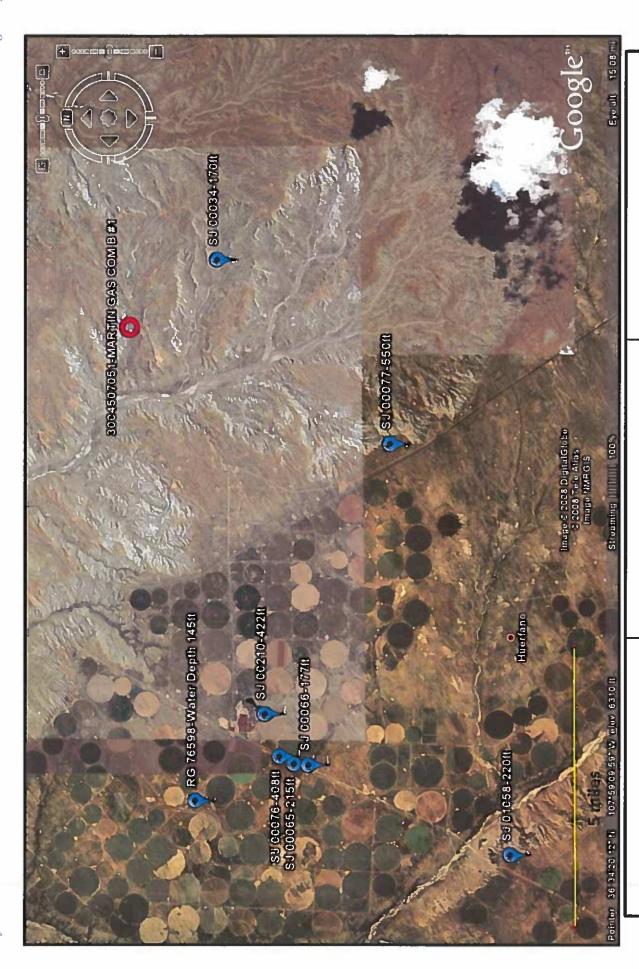
The site in question is located near the edge of Kutz Canyon, where deeply eroded sandstone-capped mesas and slope-forming mudstones occur in a sparsely vegetated and arid badlands-type setting. Broad shalely hills are interspersed with occasional sandstone outcrops, and systems of dry washes and their tributaries are evident on the attached aerial image.

The pit will be located on a relatively flat mesa top at an elevation of approximately 5804 feet near the head of Kutz Wash. It is located within the Kutz Canyon tributary system 1.18 miles east of Kutz Wash. Groundwater is expected to be shallow within Kutz Wash. But the significant distance between the Canyon and the site, as well as an elevation difference of over 150 feet suggest groundwater is greater than 100 feet at the proposed site.

State iWaters data points are sparsely distributed in this region, but there is an iWaters data point approximately 2.2 miles to the southeast of the site. Depth to groundwater at the site is 170 feet. A map showing the location of wells in reference to the proposed pit location is attached (SJ00034).



PO Box 4465



MARTIN GAS COM B #1 T28N, R10W, S31G San Juan county, NM

Lodestar Services, Inc

PO Box 4465

Durango, CO 81302

i-Waters Ground Water Data Map

New Mexico Office of the State Engineer POD Reports and Downloads

POD / Surface Data ReportAvg Depth to Water ReportWater Column Report

WATER COLUMN REPORT 03/22/2008

	X Fell Water Column	650 1102 550 552
(quarters are 1=NW 2=NE 3=SW 4=SE)	Tws Rng Sec q q q Zone	27H
(P)	POD Number	787

Record Count: 2

WATER COLUMN REPORT 09/23/2008

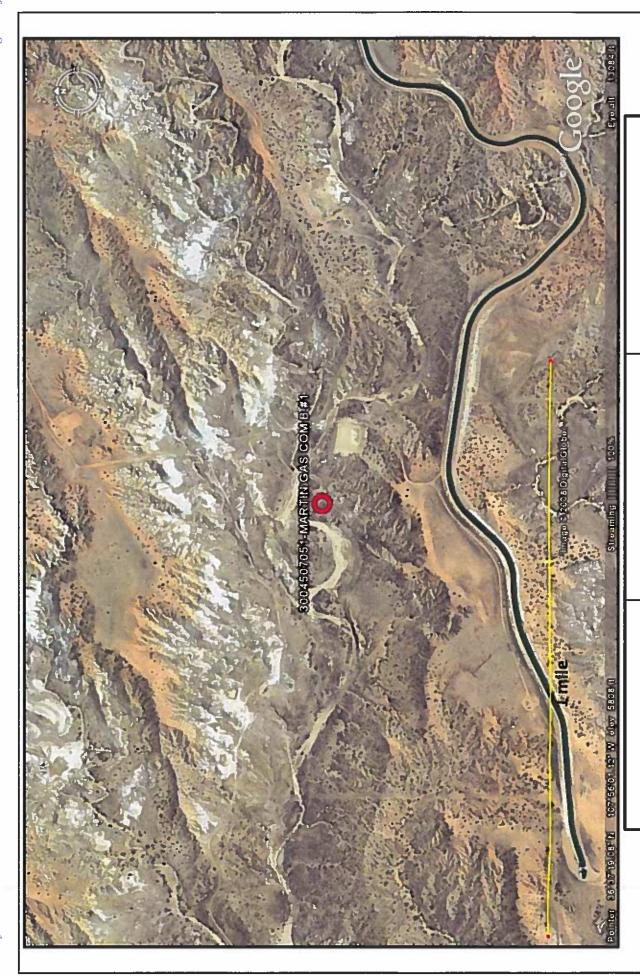
	Depth	Well Water Column	170
4=SE)	lest)	×	
(quarters are 1=NW 2=NB 3=SW 4=SB)	quarters are biggest to smal	Twa Rng Sec q q q Zone X	27N 10W 08 2 2 3
Б)	6)	POD Mumber	SJ 00034

New Mexico Office of the State Engineer POD Reports and Downloads

WATER COLUMN REPORT 08/22/2008

	(quarters	are	1=1	1	Z=Z	E 3=SW 4=SE)						
	(quarters	are	bic	Ige	34	to smallest)			Depth	Depth	Water	(in feet)
	TAS	Rng	Sec	ם	P	Zone	×	×	Well	Water	Column	
	27N	12W	02	ო	, 				225	145	80	
SJ 00076	27N	121	(F)	,,	cı cı				641	408	233	
	27N	121	E.	너	CI.				717	422	295	
SJ 00065	27N	12W	13	ന	1				671	215	456	
SJ 00066	27N	12W	13	က	4	27N 12W 13 3 3 1			750	177	573	

Record Count: 5



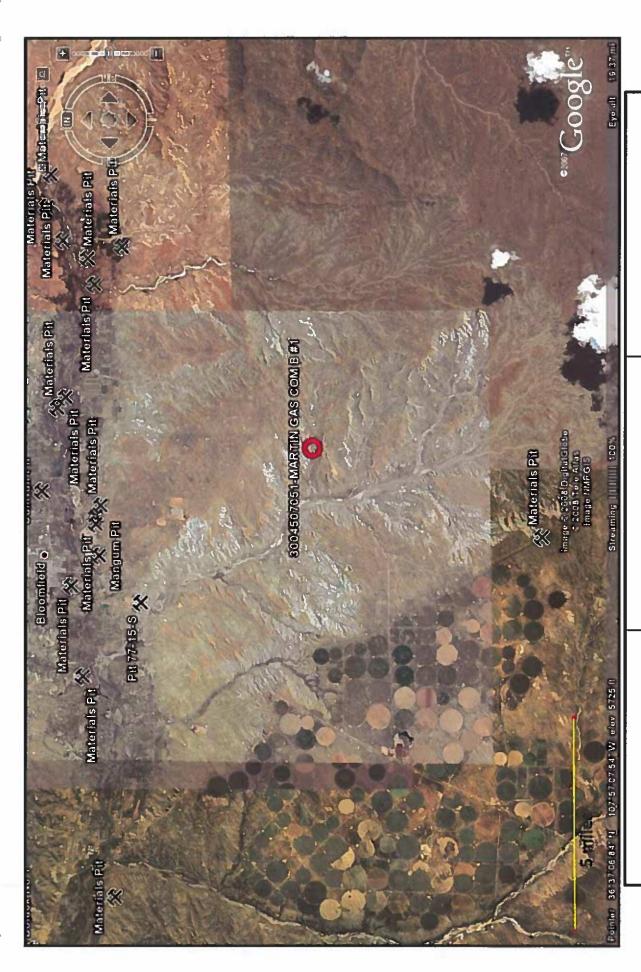
MARTIN GAS COM B #1 T28N, R10W, S31G San Juan county, NM

Lodestar Services, Inc

PO Box 4465

Durango, CO 81302

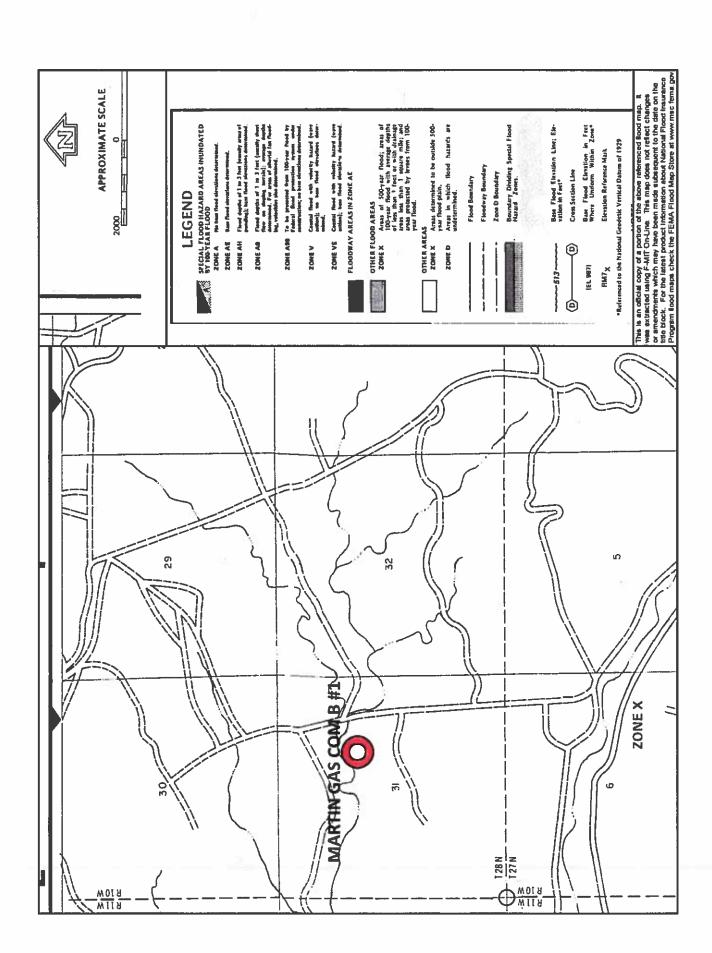
AERIAL PHOTOGRAPH



MARTIN GAS COM B #1 San Juan county, NM T28N, R10W, S31G Lodestar Services, Inc Durango, CO 81302

PO Box 4465

Mines and Quarries Map



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

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

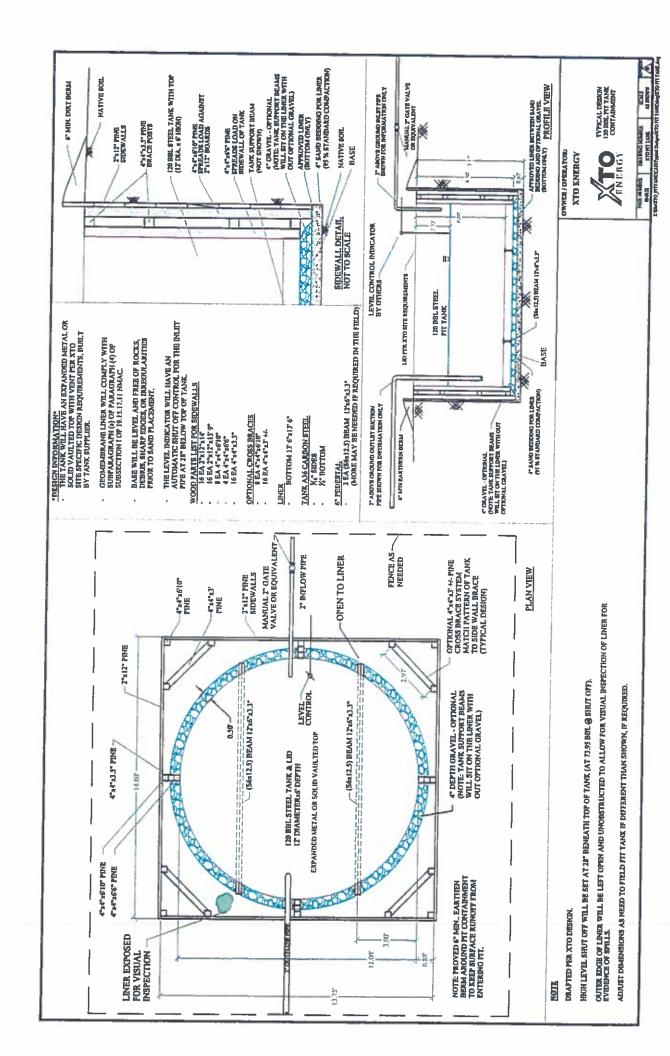
General Plan

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

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

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

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

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

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

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

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

> 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.

				Est. (ft)												
			A no vicihio ciana	of a tank feak (Y/N)												
N FORM			Visible laver	of oil (Y/N)												
INSPECTION	API No.:	Range:	Collection of Surface	run on (Y/N)												
MONTHLY BELOW GRADE TANK INSPECTION FORM			Any visible signs of	tank overflows (Y/N)									337			
1LY BELO		Township:	Any visible liner	tears (Y/N)								ption:			į	
MONT			Inspection	Time								Provide Detailed Description:				
23	9/ <u>87</u>	Sec	Inspection	Date								Provide De				
	Well Name:	Legals	XTO Inspector's	Name								Notes:				

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

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

General Plan

- 1. XTO will close below-grade tanks within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
- 2. XTO will close a below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15,17.11 NMAC.
- 3. XTO will close a permitted below-grade tank within 60 days of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The closure report will be filed on form C-144.
- 4. XTO will remove liquids and sludge from below-grade tanks prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:

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

Basin Disposal Permit No. NM01-005 Produced water

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

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

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

- If XTO or the division determines that a release has occurred, XTO will comply with 19,15,3,116
 NMAC and 19,15,1,19NMAC as appropriate.
- 9. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, XTO will backfill the excavation with compacted, non-waste containing, earthen material; construct a division prescribed soil cover; recontour and re-vegetate the site.
- 10. Notice of Closure operations will be given to the Aztec Division District III office between 72 hours and one week prior to the start of closure activities via email or verbally. The notification will include the following:
 - i. Operator's name
 - ii. Well Name and API Number
 - iii. Location by Unit Letter, Section, Township, and Range

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

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

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

- 14. All closure activities will include proper documentation and be available for review upon request and will be submitted in closure report form to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on form C-144 and incorporate the following:
 - t. Proof of closure notice to division and surface owner,
 - ii. Details on capping and covering, where applicable;
 - iii. Inspection reports,
 - iv. Confirmation sampling analytical results:
 - Disposal facility name(s) and permit number(s).
 - vi. Soil backfilling and cover installation,
 - vii. Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable);
 - viii. Photo documentation of the site reclamation.

<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 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 91957

QUESTIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	91957
	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 information will help us id	lentify the appropriate associations in the system.							
Facility or Site Name	MARTIN GAS COM B 1							
Facility ID (f#), if known	Not answered.							
Facility Type	Below Grade Tank - (BGT)							
Well Name, include well number	MARTIN GAS COM B 1							
Well API, if associated with a well	30-045-07051							
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	No							
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	Not answered.	
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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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, Page 2

Action 91957

OUEST	ONS (continued)
Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID:
QUESTIONS	[C-144] Legacy Below Grade Falls Flatt (C-144LB)
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.
Alternate, Fencing. Please specify (Variance Required)	4' mesh steel
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 solid vaulted top
Signs Subsection C of 19.15.17.11 NMAC (If there are multiple operators at a site, each operator must hav	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 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	Not answered.

Not answered.

Requests must be submitted to the Santa Fe Environmental Bureau office for

of approval. Exception(s):

consideration of approval

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

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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 91957

QUESTIONS (continued)			
Operator:	OGRID:		
HILCORP ENERGY COMPANY	372171		
1111 Travis Street	Action Number:		
Houston, TX 77002	91957		

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

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

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

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ACKNOWLEDGMENTS

Action 91957

ACKNOWLEDGMENTS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	91957
	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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CONDITIONS

Action 91957

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	91957
	Action Type:
	[C-144] Legacy Below Grade Tank Plan (C-144LB)

CONDITIONS

Created By		Condition Date
vvenegas	None	5/11/2022