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 1220 S. St. Francis Dr., Santa Fe, NM 87505 2009 APR

State of New Mexico **Energy Minerals and Natural Resources** Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Form C-144

July 21, 2008

Pit, Closed-Loop System, Below-Grade Tank, or

Proposed Alternative Method Permit or Closure Plan Application
Type of action: Existing BGT Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinance
1. Operator: XTO Energy, Inc. OGRID #: 5380 Address: #382 County Road 3100, Aztec, NM 87410
Facility or well name: Gardner C #5A
API Number: 30-045-32054 OCD Permit Number:
U/L or Qtr/Qtr O Section 26 Township 32N Range 09W County: San Juan
Center of Proposed Design: Latitude 36.94999 Longitude 107.74581 NAD: □1927 ☑ 1983
Surface Owner: 🔀 Federal 🗌 State 🗍 Private 📋 Tribal Trust or Indian Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC Temporary: Drilling Workover

☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐	HDPE PVC Other
String-Reinforced	
Liner Seams: Welded Factory Other	Volume: bbl Dimensions: L x W x D
3.	
Closed-loop System: Subsection H of 19.15.17.11 NMAC	
Type of Operation: P&A Drilling a new well Workover or Drilling intent)	(Applies to activities which require prior approval of a permit or notice of
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other	
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDP	E HDPE PVC Other
Liner Seams:	_

Below-grade tank: Subsection I of 19.1:	5.17.11 NMAC	.
Volume: <u>286</u> bbl Type	of fluid: Produced Water	
Tank Construction material: Steel		200
Secondary containment with leak detection	n 🔲 Visible sidewalls, liner, 6-inch lift and automatic overflo	ow shut-off
☐ Visible sidewalls and liner ☐ Visible side	dewalls only 🛛 Other _ <u>Visible sidewalls, vaulted, automatic</u>	high-level shut off, no liner
Liner type: Thickness	mil HDPE PVC Other	
5.		
Alternative Method:		
Submittal of an exception request is required.	Exceptions must be submitted to the Santa Fe Environmental	Bureau office for consideration of approval.
Form C-144	Oil Conservation Division	Page 1 of 5

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A

52		
6. Fencing: Subsection D of 19.15.17.11 NMAC (A)	pplies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of ba institution or church)	rbed wire at top (Required if located within 1000 feet of a permanent resid	ence, school, hospital,
Four foot height, four strands of barbed wire ev	venly spaced between one and four feet	
	rel mesh field fence (hogwire) with pipe top railing	
7.		
	plies to permanent pits and permanent open top tanks)	
☐ Screen ☐ Netting ☒ Other Expanded meta		
Monthly inspections (If netting or screening is	not physically feasible)	
8. Signs: Subsection C of 19.15.17.11 NMAC		
	me, site location, and emergency telephone numbers	
☑ Signed in compliance with 19.15.3.103 NMAC		
9.		
Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalence	y are required. Please refer to 19.15.17 NMAC for guidance.	
Please check a box if one or more of the following	g is requested, if not leave blank:	
Administrative approval(s): Requests must consideration of approval.	t be submitted to the appropriate division district or the Santa Fe Environm	ental Bureau office for
Exception(s): Requests must be submitted	to the Santa Fe Environmental Bureau office for consideration of approva	1.
10. Siting Criteria (regarding permitting): 19.15.17	7.10 NMAC	
Instructions: The applicant must demonstrate co	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 cons	
Applicant must attach justification for request. P above-grade tanks associated with a closed-loop	Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not	apply to drying pads or
	n of the temporary pit, permanent pit, or below-grade tank.	☐ Yes ⊠ No
	RS database search; USGS; Data obtained from nearby wells	
Within 300 feet of a continuously flowing waterco lake (measured from the ordinary high-water mark	urse, or 200 feet of any other significant watercourse or lakebed, sinkhole,	or playa Yes 🛛 No
- Topographic map; Visual inspection (certi		
	ol, hospital, institution, or church in existence at the time of initial applications and below and tracks.	ion.
(Applies to temporary, emergency, or cavitation pi - Visual inspection (certification) of the pro		
	ool, hospital, institution, or church in existence at the time of initial applica	ition. Yes No
(Applies to permanent pits) - Visual inspection (certification) of the pro	posed site; Aerial photo; Satellite image	ZJ IVA
	resh water well or spring that less than five households use for domestic or	
	of any other fresh water well or spring, in existence at the time of initial ap tRS database search; Visual inspection (certification) of the proposed site	plication.
Within incorporated municipal boundaries or within	in a defined municipal fresh water well field covered under a municipal or	dinance Yes 🖾 No
adopted pursuant to NMSA 1978, Section 3-27-3,		
3		
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification Within the area overlying a subsurface mine.	on map; Topographic map; Visual inspection (certification) of the proposed	d site ☐ Yes ☑ No
	Company of the state of the sta	☐ Yes ☒ No
	p from the NM EMNRD-Mining and Mineral Division	d site ☐ Yes ☒ No
	e design; NM Bureau of Geology & Mineral Resources; USGS; NM Geolo	ogical Yes 🛭 No
Within a 100-year floodplain FEMA map		☐ Yes ☑ No
Within a 100-year floodplain FEMA map Form C-144		
ive d		
Form C-144	Oil Conservation Division	Page 2 of 5
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Page 2 of	Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
	Previously Approved Design (attach copy of design) API Number: or Permit Number:
	Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: (Applies only to closed-loop system that use
	above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
	Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
	Proposed Closure: 19.15.17.13 NMAC
	Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
.48.37 AM	Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Rocoingd hw OCD - 9/15/2022 11	15.
3000	Form C-144 Oil Conservation Division Page 3 of 5
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ncilities are required. Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:		
	ns and associated activities occur on or in areas that will not be used for future ser	
Re-vegetation Plan - based upon the appropriat	or future service and operations: based upon the appropriate requirements of Subsection H of 19.15.17.13 NMA te requirements of Subsection I of 19.15.17.13 NMAC riate requirements of Subsection G of 19.15.17.13 NMAC	С
rovided below. Requests regarding changes to cert	stration of compliance in the closure plan. Recommendations of acceptable sou ain siting criteria may require administrative approval from the appropriate dist the Santa Fe Environmental Bureau office for consideration of approval. Just	rict office or may b
Fround water is less than 50 feet below the bottom of NM Office of the State Engineer - iWATERS	the buried waste. I database search; USGS; Data obtained from nearby wells	Yes No
Fround water is between 50 and 100 feet below the b - NM Office of the State Engineer - iWATERS	ottom of the buried waste database search; USGS; Data obtained from nearby wells	Yes No
Fround water is more than 100 feet below the bottom - NM Office of the State Engineer - iWATERS	of the buried waste. database search; USGS; Data obtained from nearby wells	Yes No
Vithin 300 feet of a continuously flowing watercours ake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification)	te, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa ation) of the proposed site	Yes No
Vithin 300 feet from a permanent residence, school, Visual inspection (certification) of the propos	hospital, institution, or church in existence at the time of initial application. sed site; Aerial photo; Satellite image	☐ Yes ☐ No
vatering purposes, or within 1000 horizontal feet of a	h water well or spring that less than five households use for domestic or stock my other fresh water well or spring, in existence at the time of initial application. If database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
dopted pursuant to NMSA 1978, Section 3-27-3, as	defined municipal fresh water well field covered under a municipal ordinance amended. municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Vithin 500 feet of a wetland. - US Fish and Wildlife Wetland Identification	map; Topographic map; Visual inspection (certification) of the proposed site	Yes No
Vithin the area overlying a subsurface mine. - Written confirmation or verification or map f	rom the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Vithin an unstable area. - Engineering measures incorporated into the d Society; Topographic map	esign; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	☐ Yes ☐ No
Vithin a 100-year floodplain FEMA map		☐ Yes ☐ No
y a check mark in the box, that the documents are a Siting Criteria Compliance Demonstrations - b Proof of Surface Owner Notice - based upon the Construction/Design Plan of Burial Trench (if Construction/Design Plan of Temporary Pit (for Protocols and Procedures - based upon the app Confirmation Sampling Plan (if applicable) - b Waste Material Sampling Plan - based upon the Disposal Facility Name and Permit Number (for Soil Cover Design - based upon the appropriate Re-vegetation Plan - based upon the appropriate	ased upon the appropriate requirements of 19.15.17.10 NMAC te appropriate requirements of Subsection F of 19.15.17.13 NMAC applicable) based upon the appropriate requirements of 19.15.17.11 NMAC or in-place burial of a drying pad) - based upon the appropriate requirements of 19.	15.17.11 NMAC
Form C-144	Oil Conservation Division Page 4 c	C.E.

19. ',	****	
Operator Application Certification: I hereby certify that the information submitted with this app	dication is true, accurate and complete to	the heet of my knowledge and helief
/ ^	Title:	Environmental Representative
Signature: Kun Mamplin	Date:	03/04/2009
e-mail address: kim_champlin@xtoenergy.com	Telephone:	(505) 333-3100
20.		
OCD Approval: X Permit Application (including closure		
OCD Representative Signature: Jaclyn Burdin	ve	Approval Date: 09/19/2022
Title: Environmental Specialist-A	OCD Permit Nu	mber: BGT1
21. <u>Closure Report (required within 60 days of closure comp</u> Instructions: Operators are required to obtain an approve The closure report is required to be submitted to the divisio section of the form until an approved closure plan has been	d closure plan prior to implementing an on within 60 days of the completion of th on obtained and the closure activities hav	y closure activities and submitting the closure report. ne closure activities. Please do not complete this
	Closure Col	inpletion Date.
22. Closure Method: Waste Excavation and Removal On-Site Closure No. If different from approved plan, please explain.	Method Alternative Closure Metho	od Waste Removal (Closed-loop systems only)
23. Closure Report Regarding Waste Removal Closure For Constructions: Please indentify the facility or facilities for with two facilities were utilized.	Closed-loop Systems That Utilize Abov	ve Ground Steel Tanks or Haul-off Bins Only: I cuttings were disposed. Use attachment if more than
Disposal Facility Name:	Disposal Facility	Permit Number:
Disposal Facility Name:	Disposal Facility	Permit Number:
Were the closed-loop system operations and associated activ Yes (If yes, please demonstrate compliance to the iter		ot be used for future service and operations?
Required for impacted areas which will not be used for futured Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technic	•	·
24. Closure Report Attachment Checklist: Instructions: Each 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 applical Waste Material Sampling Analytical Results (required Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technical Site Reclamation (Photo Documentation) On-site Closure Location: Latitude	ble) 1 for on-site closure)	ed to the closure report. Please indicate, by a check NAD: 1927 1983
25.		
Operator Closure Certification: I hereby certify that the information and attachments submit belief. I also certify that the closure complies with all applic	ted with this closure report is true, accurate able closure requirements and conditions	ate and complete to the best of my knowledge and s specified in the approved closure plan.
Name (Print):	Title:	
Signature:	Date:	
e-mail address:	Telephone:	
Form C-144	Oil Conservation Division	ate and complete to the best of my knowledge and s specified in the approved closure plan. Page 5 of 5
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DESTRUCT 1

811 South First, Artesia, M.M. 48210

1000 Rio Bruson Mil., Asten, M.M. 87410

DISTRICT IV 2040 South Pacheco, Senta Fe, MM 67504-2058

State of New Mexico Energy, Minerals & Matural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2068 Santa Fe, NM 87504-2088

Form C-102 Revised Febuary 21, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

AMENDED REPORT

					N AND A	CREAGE DED	CATION PI	LAT		
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A Lodester Service	s luc	Pit Permit	Client: Project:	XTO Energy Pit Permits
10 Baz 4465, Duran			Revised:	1-Mar-09
1033435,344	3, 60 0 13 UE	Siting Criteria	Prepared by:	Brooke Herb
API#:		30-045-32054	USPLSS:	T32N,R09W,S26O
Name:		Gardner C #5A	Lat/Long:	36.94999, -107.74581
Depth to groundwater:		> 100'	Geologic formation:	San Jose Formation
Distance to closest continuously flowing watercourse:	8.14 mile	es W of Los Pinos River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	Box Canyo	Rawhide Canyon; 840' W of in; 1.14 miles SE of a Playa i' SE of a lined evaporation pond		
			Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'		No		
			Annual Precipitation:	12.95 inches (Navajo Dam)
Domestic fresh water well or spring within 500'		No	Precipitation Notes:	no significant precip events
Any other fresh water well or spring within 1000'	No - 4090	D' SE of Rawhide Spring		
Within incorporated			Attached	
municipal boundaries	<u> </u>	No	Documents:	Groundwater report and Data; FEMA Flood Zone Map
Within defined municipal fresh water well field		No		Aerial Photo, Topo Map, Mines Mills and Quarries Map
Wetland within 500'		No	Mining Activity:	
Within unstable area	(1)	No		None Near
Within 100 year flood plain	No - F	EMA Flood Zone 'X'		
Additional Notes:		#12 wellhead on same s Gardner C #5A.		4465' SE of a cleared area for agriculture/ Livestock

Gardner C #5A Below Ground Tank Siting Criteria and Closure Plan

General Geology and Hydrology

The San Juan Basin is a typical Rocky Mountain basin with a gently dipping southern flank and a steeply dipping northern flank. Asymmetrically layered Tertiary sandstones and shales, along with Quaternary alluvial deposits, dominate surficial geology (Dane and Bachman, 1965). The proposed pit location will be located in the north central San Juan Basin near Navajo Lake. The predominant geologic formation is the San Jose Formation of Tertiary age, which underlies surface soils and is often exposed (Dane and Bachman, 1965). Deposits of Quaternary alluvial and aeolian sands occur 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 San Jose Formation lies at the surface and overlies the Nacimiento Formation. Thickness of the San Jose ranges from 200 to 2700 feet, thickening from west to east across the region of interest (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the San Jose Formation are between 0 and 2700' deep in this section of the basin (Stone et al., 1983). Groundwater within these aquifers flows southwest, toward the San Juan River. Little specific hydrogeologic data is available for the San Jose Formation system, but "numerous wells and springs used for stock and domestic supplies" draw their water from the San Jose Formation (Stone et al., 1983).

The prominent soil type(s) at the proposed site are entisols and aridisols, which are defined as soils exhibiting little to no 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 and prohibits effective recharge to the underlying aquifers.

Regional weather further prohibit active recharge. The climate is arid, averaging just over 11 inches of rainfall annually. As is typical of the southwestern United States monsoonal weather patterns, most precipitation falls from July through September. The heaviest rainfall occurs in the summer in isolated, intense cloudbursts. September 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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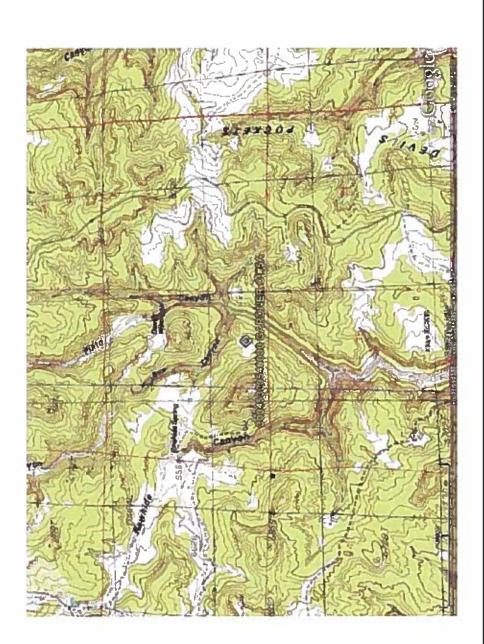
Site Specific Hydrogeology

Depth to groundwater is estimated to be greater than 100 feet. This estimation is based on data from Stone and others (1983), the USGS Groundwater Atlas of the United States and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography, proximity to adjacent channels & spring features at similar elevations nearby are also taken into consideration. Groundwater data is extremely limited in this region; the nearest iWaters data point lies 3040 feet northwest (SP 045231); this source is an evaporation pond. The closest water well is 1.86 miles to the northwest (SJ 03131).

Beds of water-yielding sandstone are present in the San Jose Formation, which are fluvial in origin and are interbedded with mudstone, siltstone & shale. "Extensive intertonguing" of different members of this formation is reported (Stone et al, 1983). Porous sandstones form the principal aquifers, while relatively impermeable shales and mudstones form confining units between the aquifers (Stone et al., 1983). Local aquifers exist within the San Jose Formation at depths greater than 100 feet and thicknesses of the aquifer can be up to several hundred feet (USGS, Groundwater Atlas of the US; Stone et al, 1983).

A site visit to this location determined that there is a playa lake approximately 1.14 miles to the northwest of the site. Within the cleared area of the playa lake, there are vegetated patches and some man-made berms for stock ponds. Approximately 4465 feet to the northwest of the below grade tank site there is an area cleared for agriculture or livestock.

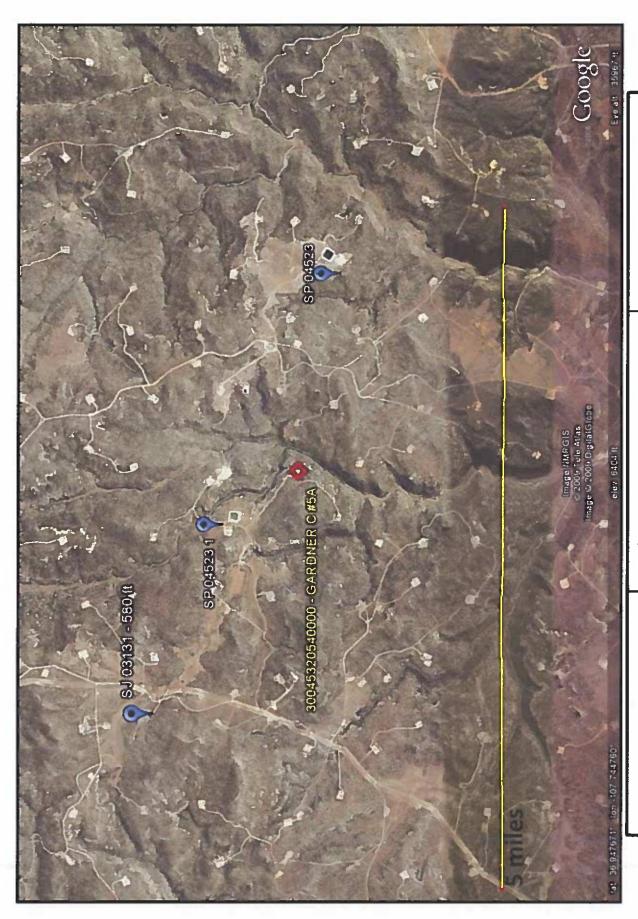
Groundwater data available from the NM State Engineer's iWaters Database for wells near the existing below grade tank are attached. A water well to the northwest is approximately 150 feet higher in elevation then the site. Depth to groundwater within the well is 580 feet below ground surface. The distance to groundwater at the below ground tank is greater than 100 feet below ground surface.



Lodestar Services, Inc. | Ga PO Box 4465 Durango, CO 81302 | Sa

Gardner C #5A T32N, R09W, S26O San Juan County, NM

Topographic Map



Lodestar Services, Inc GPO Box 4465
Durango, CO 81302

Gardner C #5A T32N, R09W, S26O San Juan County, NM

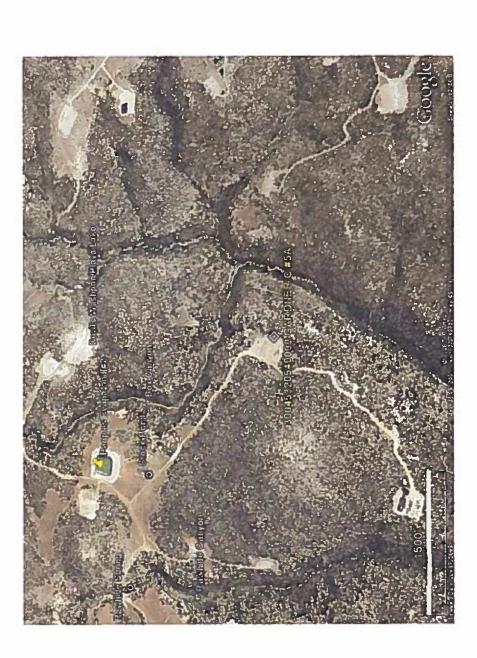
iWaters Groundwater Data Map



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

POD Number	County	0 0 0 6416 4 Sec Tws	Sec	Tws	Rig	×	YDe	pthWellDe	Water V DepthWellDepthWater Column	Water
SJ 03131	San Juan	3 3 3	22	32N	3 22 32N 09W	252963	252963 4094453	843	280	263
Record 1 Count:						74	Average Depth to Water. Minimum Depth	Depth to Water. Minimum Depth:	580 feet 580 feet	
						3 3	Maximu	Maximum Depth:	580 feet	



Lodestar Services, Inc. PO Box 4465 Durango, CO 81302

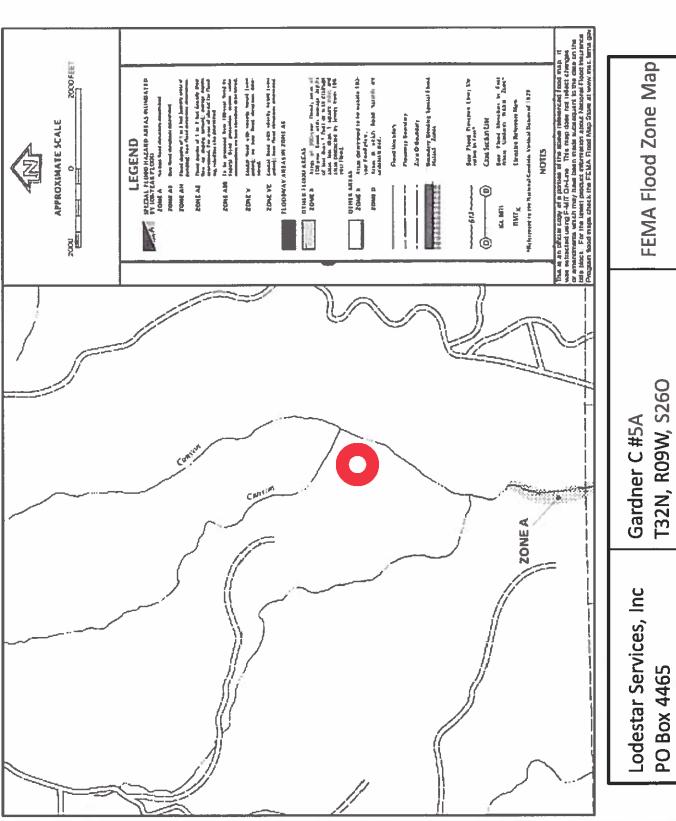
Gardner C #5A T32N, R09W, S26O San Juan County, NM

Aerial Photo



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

Mines, Mills, and Quarries Map



FEMA Flood Zone Map

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San Juan County, NM

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.

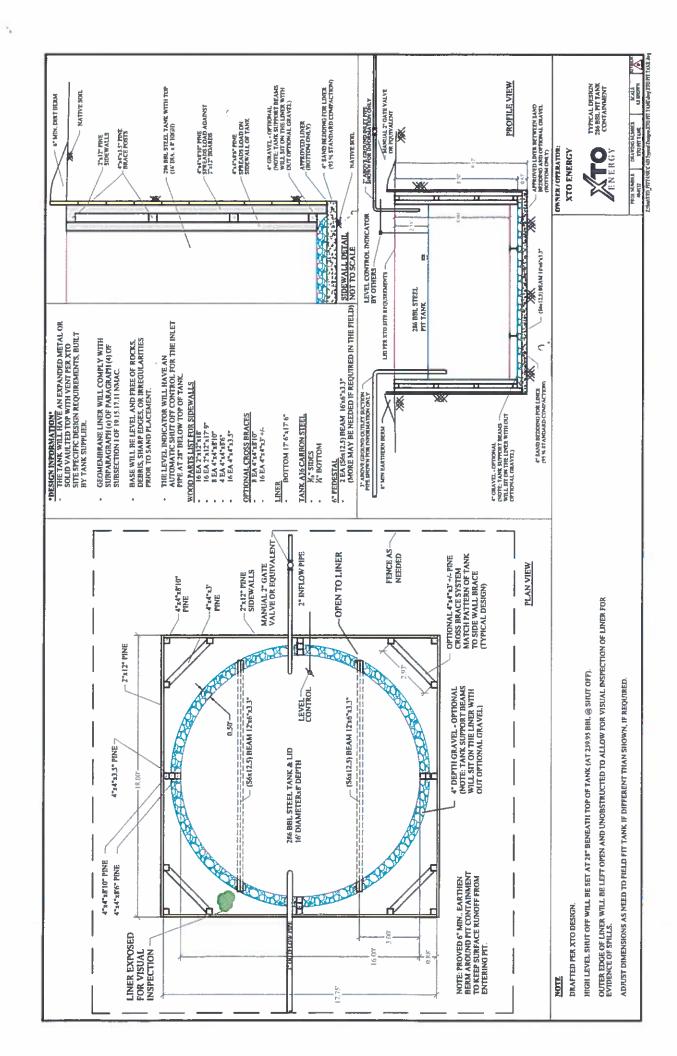
General Plan

- 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.
- 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 ½" 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).

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



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

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

General Plan

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

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.

		MONTH	1LY BELO	MONTHLY BELOW GRADE TANK INSPECTION FORM	NSPECTIC	N FORM		
Well Name:					API No.:			
Legals	Sec:		Township:		Range:			
XTO Inspector's	Inspection	ے	Any visible liner	Any visible signs of	Collection of surface	Visible layer	Any visible signs	Freeboard
Nallie	Dale	<u> </u>	leals (1714)	talik overilows (T/N)	Turi on (T/N)	OI OII (T/N)	or a tank leak (17N)	ESt. (II)
				7				
		32						
Notes:	Provide De	Provide Detailed Description:	otion:					
Misc:								

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

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

General Plan

- 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.
- XTO will remove liquids and sludge from below-grade tanks prior to implementing a closure 4. method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:

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

Basin Disposal Permit No. NM01-005 Produced water

- 5. XTO will remove the below-grade tank and dispose of it in a division approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office has approved prior to removal. Any associated liners will be removed, properly cleaned and disposed of per 19.15.9.712 NMAC at San Juan County Landfill. Documentation of the final disposition will be included in the closure report.
- XTO will remove any on-site equipment associated with a below-grade tank unless the equipment 6. 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.
San Juan Basin (Northwest New Mexico)
General Closure Plan
For Below-Grade Tanks
Page 2

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

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

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

- 11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area.

 Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 12. A minimum of 4 feet of cover shall be achieved and the cover shall include 1 foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. Soil cover will be constructed to the site's existing grade and ponding of water and erosion of the cover material will be prevented with drainage control, natural drainages and silt traps where needed.
- 13. XTO will seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other 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:
 - i. Proof of closure notice to division and surface owner;
 - ii. Details on capping and covering, where applicable;
 - iii. Inspection reports;
 - iv. Confirmation sampling analytical results;
 - v. Disposal facility name(s) and permit number(s);
 - vi. Soil backfilling and cover installation;
 - vii. Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable);
 - viii. Photo documentation of the site reclamation.

District I
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 143735

QUESTIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	143735
	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 identify the appropriate associations in the system.		
Facility or Site Name	GARDNER C 5A	
Facility ID (f#), if known	Not answered.	
Facility Type	Below Grade Tank - (BGT)	
Well Name, include well number	GARDNER C 5A	
Well API, if associated with a well	3004532054	
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)	286
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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QUESTIONS (continued)

QUESTIONS, Page 2

Action	143735

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID:	
	[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.	
Alternate, Fencing. Please specify (Variance Required)	4' hogwire	
Nestine.		
Netting Subsection F of 10 15 17 11 NMAC (Applies to permanent with and permanent execution to teat (a)		
Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks) Screen	Not answered.	
Netting	Not answered. 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 have	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 of approval.	Not answered.	
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval	Not answered.	

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District IV

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 143735

TONS (continued)	
OGRID Action	372171 Number: 143735
Action	Type: [C-144] Legacy Below Grade Tank Plan (C-144LB)
a below in the application. F	Recommendations of acceptable source material are provided
1	
No	
True	
Not answered.	
Not answered.	
No	
No	
	21
Below Grade Tank - (BGT)	
True Not answered.	
	No True Not answered. No No Below Grade Tank - (BGT

03/04/2009

Operator Application Certification Registered / Signature Date

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ACKNOWLEDGMENTS

Action 143735

ACKNOWLEDGMENTS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	143735
	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 143735

CONDITIONS

Operator:	OGRID:
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1111 Travis Street	Action Number:
Houston, TX 77002	143735
	Action Type:
	[C-144] Legacy Below Grade Tank Plan (C-144LB)

CONDITIONS

Created By		Condition Date
jburdine	None	9/19/2022