Application for Permit to Drill

AFMSS

# U.S. Department of the Interior

**Bureau of Land Management** 

APD Package Report	Date Printed:	
APD ID:	Well Status:	
APD Received Date:	Well Name:	
Operator:	Well Number:	

APD Package Report Contents

- Form 3160-3

- Operator Certification Report
- Application Report
- Application Attachments
  - -- Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
  - -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  - -- Blowout Prevention BOP Diagram Attachment: 1 file(s)
  - -- Casing Spec Documents: 2 file(s)
  - -- Casing Taperd String Specs: 1 file(s)
  - -- Casing Design Assumptions and Worksheet(s): 1 file(s)
  - -- Hydrogen sulfide drilling operations plan: 1 file(s)
  - -- Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  - -- Other Facets: 5 file(s)
  - -- Other Variances: 4 file(s)
- SUPO Report
- SUPO Attachments
  - -- Existing Road Map: 1 file(s)
  - -- New Road Map: 1 file(s)
  - -- Attach Well map: 1 file(s)
  - -- Production Facilities map: 2 file(s)
  - -- Water source and transportation map: 1 file(s)
  - -- Well Site Layout Diagram: 2 file(s)
  - -- Recontouring attachment: 2 file(s)
  - -- Other SUPO Attachment: 2 file(s)
- PWD Report
- PWD Attachments

-- None

- Bond Report

- Bond Attachments

-- None

Form 3160-3 (June 2015) UNITED STATES		FORM A OMB No Expires: Jan	PPROVED 1004-0137 uuary 31, 2018	
DEPARTMENT OF THE IN BUREAU OF LAND MANA	TERIOR GEMENT	5. Lease Serial No.		
APPLICATION FOR PERMIT TO DR	6. If Indian, Allotee of	or Tribe Name		
1a. Type of work:   DRILL	ENTER	7. If Unit or CA Agre	ement, Name and No.	
1b. Type of Well:   Oil Well   Gas Well   Oth	er	8 Lesse Name and W	Vell No	
1c. Type of Completion: Hydraulic Fracturing Sing	gle Zone Multiple Zone	6. Lease Ivalle and V	Ven IVO.	
2. Name of Operator		9. API Well No. <b>30-0</b>	15-56409	
3a. Address   3	Bb. Phone No. (include area code)	10. Field and Pool, or	r Exploratory	
4. Location of Well ( <i>Report location clearly and in accordance wi</i>	th any State requirements.*)	11. Sec., T. R. M. or	Blk. and Survey or Area	
At surface				
At proposed prod. zone				
14. Distance in miles and direction from nearest town or post office	e*	12. County or Parish	13. State	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	16. No of acres in lease 17. Spaci	ng Unit dedicated to th	is well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 20. BLM	/BIA Bond No. in file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration	n	
	24. Attachments			
The following, completed in accordance with the requirements of (as applicable)	Onshore Oil and Gas Order No. 1, and the H	Hydraulic Fracturing ru	le per 43 CFR 3162.3-3	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>	4. Bond to cover the operation Item 20 above).	as unless covered by an	existing bond on file (see	
3. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).	Lands, the 5. Operator certification. 6. Such other site specific infor BLM.	rmation and/or plans as 1	may be requested by the	
25. Signature	Name (Printed/Typed)		Date	
Title		I		
Approved by (Signature)	Name (Printed/Typed)	-	Date	
Title	Office	I		
Application approval does not warrant or certify that the applicant applicant to conduct operations thereon. Conditions of approval, if any, are attached.	holds legal or equitable title to those rights	in the subject lease wh	ich would entitle the	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, ma of the United States any false, fictitious or fraudulent statements or	ke it a crime for any person knowingly and representations as to any matter within its	willfully to make to ar jurisdiction.	ny department or agency	



(Continued on page 2)

\*(Instructions on page 2)

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## INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

# NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48( d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## **Additional Operator Remarks**

## Location of Well

0. SHL: NWNE / 136 FNL / 2667 FEL / TWSP: 255 / RANGE: 30E / SECTION: 28 / LAT: 32.10802 / LONG: -103.886148 (TVD: 0 feet, MD: 0 feet) PPP: NENW / 100 FNL / 2530 FWL / TWSP: 255 / RANGE: 30E / SECTION: 28 / LAT: 32.108117 / LONG: -103.886638 (TVD: 10077 feet, MD: 10500 feet) BHL: SESW / 50 FSL / 2530 FWL / TWSP: 255 / RANGE: 30E / SECTION: 33 / LAT: 32.079255 / LONG: -103.886717 (TVD: 10077 feet, MD: 20929 feet)

## **BLM Point of Contact**

Name: MARIAH HUGHES Title: Land Law Examiner Phone: (575) 234-5972 Email: mhughes@blm.gov

## **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

## PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating, LLC
LEASE NO.:	NMNM05039A
COUNTY:	Eddy County, New Mexico

Wells:

Poker Lake Unit 21 BD			# 30	<b>7</b> H					
	Section	Township		Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	21	25 South		30 East	180'	FSL	2,039'	FEL	Eddy
Bottom Hole	4	26 Sc	outh	30 East	2,600'	FNL	1,525'	FEL	Eddy

Poker Lake Unit 21 BD			# 30	8H					
	Section	Township		Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	21	25 Sc	outh	30 East	180'	FSL	2,009'	FEL	Eddy
Bottom Hole	4	26 Sc	outh	30 East	2,600'	FNL	1,125'	FEL	Eddy

Poker Lake Unit 21 BD			# 30	9H					
	Section	Township		Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	21	25 Sc	outh	30 East	180'	FSL	1,979'	FEL	Eddy
Bottom Hole	4	26 Sc	outh	30 East	2,600'	FNL	725'	FEL	Eddy

Poker Lake Unit 21 BD		# 3 <b>1</b>	0H						
	Section	Town	ship	Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	21	25 Sc	outh	30 East	180'	FSL	1,949'	FEL	Eddy
Bottom Hole	4	26 Sc	outh	30 East	2,600'	FNL	330'	FEL	Eddy

# Poker Lake Unit 21 BD Pad E

Poker Lake Unit 21 BD			# 50	1H					
	Section	Township		Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	28	25 So	outh	30 East	136'	FNL	2,162'	FWL	Eddy
Bottom Hole	33	25 So	outh	30 East	50'	FSL	330'	FWL	Eddy

Poker Lake Unit 21 BD			# 502H						
	Section	Township		Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	28	25 South		30 East	136'	FNL	2,192'	FWL	Eddy
Bottom Hole	33	25 Sc	outh	30 East	50'	FSL	770'	FWL	Eddy

Poker Lake Unit 21 BD			# 50	3H					
	Section	Township F		Range	N/S Footage	Call	E/W Footage	e Call	County
Surface	28	25 Sc	outh	30 East	136'	FNL	2,222'	FWL	Eddy
Bottom Hole	33	25 Sc	outh	30 East	50'	FSL	1,210'	FWL	Eddy

Poker Lake Unit 21 BD			# 50	4H					
	Section	Township		Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	28	25 Sc	outh	30 East	136'	FNL	2,622'	FWL	Eddy
Bottom Hole	33	25 Sc	outh	30 East	50'	FSL	1,650'	FWL	Eddy

Poker Lake Unit 21 BD			# 50	5H					
	Section	Township		Range	N/S Footage	Call	E/W Footage	e Call	County
Surface	28	25 Sc	outh	30 East	136'	FNL	2,652'	FWL	Eddy
Bottom Hole	33	25 Sc	outh	30 East	50'	FSL	2,090'	FWL	Eddy

Poker Lake Unit 21 BD			# 50	6H					
	Section	Town	ship	Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	28	25 Sc	outh	30 East	136'	FNL	2,667'	FWL	Eddy
Bottom Hole	33	25 Sc	outh	30 East	50'	FSL	2,530'	FWL	Eddy

Poker Lake Unit 21 BD			# 50	<b>7</b> H					
	Section	Town	ship	Range	N/S Footage	Call	E/W Footag	e Call	County
Surface	28	25 Sc	outh	30 East	136'	FNL	2,637'	FEL	Eddy
Bottom Hole	4	26 Sc	outh	30 East	2,600'	FNL	2,325'	FEL	Eddy

Poker Lake Unit 21 BD # 508H											
	Sectio n	Towr	nship	Range		N/S Foota ge	Call	E/W F	ootage	Call	Count y
Surfa ce	28	25 S	outh	30 E	East	136'	FNL	2,607'	FE	ĒL	Eddy
Botto m Hole	4	26 S	outh	30 E	East	2,600'	FNL	1,925'	FE	ĒL	Eddy

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# **1. GENERAL PROVISIONS**

The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## 1.1. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the operator, or any person working on the operator's behalf, on the public or federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area (within 100ft) of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer, in conjunction with a BLM Cultural Resource Specialist, to determine appropriate actions to prevent the loss of significant scientific values. The operator shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the operator.

Traditional Cultural Properties (TCPs) are protected by NHPA as codified in 36 CFR 800 for possessing traditional, religious, and cultural significance tied to a certain group of individuals. Though there are currently no designated TCPs within the project area or within a mile of the project area, but it is possible for a TCP to be designated after the approval of this project. **If a TCP is designated in the project area after the project's approval, the BLM Authorized Officer will notify the operator of the following conditions and the duration for which these conditions are required.** 

- 1. Temporary halting of all construction, drilling, and production activities to lower noise.
- 2. Temporary shut-off of all artificial lights at night.

The operator is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA), specifically NAGPRA Subpart B regarding discoveries, to protect human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered during project work. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and a BLM-CFO Authorized Officer will be notified immediately. The BLM will then be required to be notified, in writing, within 24 hours of the discovery. The written notification should include the geographic location by county and state, the contents of the discovery and the steps taken to protect said discovery. You must also include any potential threats to the discovery and a conformation that all activity within 100ft of the discovery has ceased and work will not resume until written certification is issued. All work on the entire project must halt for a minimum of 3 days and work cannot resume until an Authorized Officer grants permission to do so.

Any paleontological resource discovered by the operator, or any person working on the operator's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. The operator will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the operator.

## 1.2. RANGELAND RESOURCES

### 1.2.1. Cattleguards

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

#### 1.2.2. Fence Requirement

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

#### 1.2.3. Livestock Watering Requirement

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

### NOXIOUS WEEDS

The operator shall treat the noxious weeds that are currently established and any noxious weeds that become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA, New Mexico Department of Agriculture, and BLM requirements and policies.

#### 1.3.1 African Rue (Peganum harmala)

**Spraying:** The spraying of African Rue must be completed by a licensed or certified applicator. In order to attempt to kill or remove African Rue the proper mix of chemical is needed. The mix consists of 2% Arsenal (Imazapyr) and 2% Roundup (Glyphosate) along with a nonionic surfactant. Any other chemicals or combinations shall be approved by the BLM Noxious Weeds Coordinator prior to treatment. African Rue shall be sprayed in connection to any dirt working activities or disturbances to the site being sprayed. Spraying of African Rue shall be done on immature plants at initial growth through flowering and mature plants between budding and flowering stages. Spraying shall not be conducted after flowering when plant is fruiting. This will ensure optimal intake of chemical and decrease chances of developing herbicide resistance. After spraying, the operator or necessary parties must contact the Carlsbad Field Office to inspect the effectiveness of the application treatment to the plant species. No ground disturbing activities can take place until the inspection by the authorized officer is complete. The operator may contact the Environmental Protection Department or the BLM Noxious Weed Coordinator at (575) 234-5972 or BLM\_NM\_CFO\_NoxiousWeeds@blm.gov.

**Management Practices:** In addition to spraying for African Rue, good management practices should be followed. All equipment should be washed off using a power washer in a designated containment area. The containment area shall be bermed to allow for containment of the seed to prevent it from entering any open areas of the nearby landscape. The containment area shall be excavated near or adjacent to the well pad at a depth of three feet and just large enough to get equipment inside it to be washed off. This will allow all seeds to be in a centrally located area that can be treated at a later date if the need arises.

### 1.3. LIGHT POLLUTION

### 1.3.1. Downfacing

All permanent lighting will be pointed straight down at the ground in order to prevent light spill beyond the edge of approved surface disturbance.

### 1.3.2. Shielding

All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source).

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### 1.3.3. Lighting Color

Lighting shall be 3,500 Kelvin or less (Warm White) except during drilling, completion, and workover operations. No bluish-white lighting shall be used in permanent outdoor lighting.

## 2. SPECIAL REQUIREMENTS

## WATERSHED

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No waterflow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be immediately corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location with wattles (minimum 9" height) surrounding the stockpiled soil to prevent soil loss due to water/wind erosion. The wattles are to be maintained throughout the life of the project. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Any water erosion that may occur due to the construction of the well pad and during the life of the well pad will be immediately corrected and proper measures will be taken to prevent future erosion.

### 2.1.1. Tank Battery

Tank battery locations will be lined and bermed. A 20-mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Secondary containment holding capacity must be large enough to contain 1 <sup>1</sup>/<sub>2</sub> times the content of the largest tank or 24-hourproduction, whichever is greater (displaced volume from all tanks within the berms MUST be subtracted from total volume of containment in calculating holding capacity). Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

### 2.1.2. Buried/Surface Line(s)

When crossing ephemeral drainages (marked and unmarked), the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. In ephemeral flow paths, rivers, and streams excess soil is to be compacted, contoured, and level to ground surface, allowing water to flow in its natural state. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (plastic and weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation. Any water erosion that may occur due to construction or during the life of the pipeline system will be immediately corrected and proper measures will be taken to prevent erosion. Any spills or leaks from the proposed pipeline must be reported to BLM immediately.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

#### 2.1.3. Electric Line(s)

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole must not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that does not promote further erosion.

#### 2.1.4. Temporary Use Fresh Water Frac Line(s)

Once the temporary use exceeds the timeline of 180 days and/or with a 90 day extension status; further analysis will be required if the applicant pursues to turn the temporary ROW into a permanent ROW.

The pipeline is to not obstruct ephemeral drainages or streams allowing water to flow in its natural state unobstructed. Any water erosion that may occur due to the construction within the ROW would be corrected by the operator within two weeks and proper measures would be taken to prevent future erosion events. Any spills or leaks from the proposed produced water pipeline must be reported to BLM immediately.

### 2.2. CAVE/KARST

### 2.2.1. General Construction

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- This is a sensitive area and all spills or leaks will be reported to the BLM immediately for their immediate and proper treatment, as defined in NTL 3A for Major Undesirable Events.

### 2.2.2. Pad Construction

- The pad will be constructed and leveled by adding the necessary fill and caliche. No blasting will be used for any construction or leveling activities.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.

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- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will be vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

#### 2.2.3. Road Construction

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

#### 2.2.4. Buried Pipeline/Cable Construction

• Rerouting of the buried line(s) may be required if a subsurface void is encountered during construction to minimize the potential subsidence/collapse of the feature(s) as well as the possibility of leaks/spills entering the karst drainage system.

#### 2.2.5. Powerline Construction

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems.
- Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- Special restoration stipulations or realignment may be required if subsurface voids are encountered.

#### 2.2.6. Surface Flowlines Installation

• Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

#### 2.2.7. Production Mitigation

- Tank battery locations and facilities will be bermed and lined with a 20-mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Secondary containment holding capacity must be large enough to contain 1 ½ times the content of the largest tank or 24-hour production, whichever is greater (displaced volume from all tanks within the berms MUST be subtracted from total volume of containment in calculating holding capacity).
- Implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

#### 2.2.8. Residual and Cumulative Mitigation

The operator will perform annual pressure monitoring on all casing annuli. If the test results indicate a casing failure has occurred, contact a BLM Engineer immediately, and take remedial action to correct the problem.

#### 2.2.9. Plugging and Abandonment Mitigation

Upon well abandonment in high cave karst areas, additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

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## 2.3 VISUAL RESOURCE MANAGEMENT

### 2.5.1 VRM IV

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

### 2.6 Potash Resources

Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Ore Digger Drill Island (See Potash Memo and Map in attached file for Drill Island description).

## **3. CONSTRUCTION REQUIRENMENTS**

## 3.1 CONSTRUCTION NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at BLM\_NM\_CFO\_Construction\_Reclamation@blm.gov at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and COAs on the well site and they shall be made available upon request by the Authorized Officer.

### 3.2 TOPSOIL

The operator shall strip the topsoil (the A horizon) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. No more than the top 6 inches of topsoil shall be removed. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (the B horizon and below) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

## 3.3 CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No reserve pits will be used for drill cuttings. The operator shall properly dispose of drilling contents at an authorized disposal site.

### 3.4 FEDERAL MINERAL PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

### 3.5 WELL PAD & SURFACING

Any surfacing material used to surface the well pad will be removed at the time of interim and final reclamation.

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## 3.6 EXCLOSURE FENCING (CELLARS & PITS)

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the well cellar is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

The operator will also install and maintain mesh netting for all open well cellars to prevent access to smaller wildlife before and after drilling operations until the well cellar is free of fluids and the operator. Use a maximum netting mesh size of  $1 \frac{1}{2}$  inches. The netting must not have holes or gaps.

## 3.7 ON LEASE ACESS ROAD

## 3.7.1 Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

## 3.7.2 Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements will be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

## 3.7.3 Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

## 3.7.4 **Ditching**

Ditching shall be required on both sides of the road.

## 3.7.5 **Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

## 3.7.6 Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, leadoff ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### Cross Section of a Typical Lead-off Ditch

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All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);



### 3.7.7 **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.





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## 4. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- A leak detection plan <u>will be submitted to the BLM Carlsbad Field Office for approval</u> prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

### 4.1 BURIED PIPELINES

A copy of the application (APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request a copy of your permit during construction to ensure compliance with all stipulations.

Operator agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

- 1. The Operator shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this APD.
- 2. The Operator shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the operator shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the pipeline corridor or on facilities authorized under this APD. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. The operator agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Pipeline corridor (unless the release or threatened release is wholly unrelated to the operator's activity on the pipeline corridor), or resulting from the activity of the Operator on the pipeline corridor. This agreement applies without regard to whether a release is caused by the operator, its agent, or unrelated third parties.
- 4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant is discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of operator, regardless of fault. Upon failure of operator to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and

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fish and wildlife habitats, at the full expense of the operator. Such action by the Authorized Officer shall not relieve operator of any responsibility as provided herein.

- 5. All construction and maintenance activity will be confined to the authorized pipeline corridor.
- 6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.
- 7. The maximum allowable disturbance for construction in this pipeline corridor will be 60 feet:
  - Blading of vegetation within the pipeline corridor will be allowed: maximum width of blading operations will not exceed <u>40</u> feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
  - Clearing of brush species within the pipeline corridor will be allowed: maximum width of clearing operations will not exceed <u>60</u> feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
  - The remaining area of the pipeline corridor (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)
- 8. The operator shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately <u>6</u> inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.
- 9. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this pipeline corridor and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire pipeline corridor shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted, and a 6-inch berm will be left over the ditch line to allow for settling back to grade.
- 10. The pipeline will be identified by signs at the point of origin and completion of the pipeline corridor and at all road crossings. At a minimum, signs will state the operator's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.
- 11. The operator shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the operator before maintenance begins. The operator will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the operator to construct temporary deterrence structures.
- 12. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.
- 13. <u>Escape Ramps</u> The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

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- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them alive at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30-degree slope and spaced no more than 500 feet apart) shall be placed in the trench. Before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them alive at least 100 yards from the trench.

#### SURFACE PIPELINES

A copy of the APD and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Operator agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

- 1. Operator shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this APD.
- 2. Operator shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Operator shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 et seq. (1982) with regard to any toxic substances that are used, generated by or stored on the pipeline corridoror on facilities authorized under this APD (see 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. Operator agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Pipeline corridor (unless the release or threatened release is wholly unrelated to activity of the Operator's activity on the Pipeline corridor), or resulting from the activity of the Operator on the pipeline corridor. This provision applies without regard to whether a release is caused by Operator, its agent, or unrelated third parties.
- 4. Operator shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Operator shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the pipeline corridor or permit area:
  - a. Activities of Operator including, but not limited to: construction, operation, maintenance, and termination of the facility;
  - b. Activities of other parties including, but not limited to:
    - (1) Land clearing
    - (2) Earth-disturbing and earth-moving work
    - (3) Blasting
    - (4) Vandalism and sabotage
  - c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of

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negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

- 5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant is discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Operator, regardless of fault. Upon failure of Operator to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as they deem necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Operator. Such action by the Authorized Officer shall not relieve Operator of any responsibility as provided herein.
- 6. All construction and maintenance activity shall be confined to the authorized pipeline corridor width of 30-feet. If the pipeline route follows an existing road or buried pipeline corridor, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline corridor. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or pipeline corridors.
- 7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.
- 8. Operator shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.
- 9. The pipeline shall be buried with a minimum of 6 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
- 10. The operator shall minimize disturbance to existing fences and other improvements on public lands. The operator is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The operator will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 11. In those areas where erosion control structures are required to stabilize soil conditions, the operator will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
- 12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the operator to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" Shale Green, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
- 13. The pipeline will be identified by signs at the point of origin and completion of the pipeline corridor and at all road crossings. At a minimum, signs will state the operator's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

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- 14. The operator shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the operator. The operator will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
- 15. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.
- 16. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

### 4.2 OVERHEAD ELECTRIC LINES

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Operator agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

- 1. The operator shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this APD.
- 2. The operator shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the operator shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the powerline corridor or on facilities authorized under this powerline corridor. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. The operator agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Powerline corridor(unless the release or threatened release is wholly unrelated to the operator's activity on the powerline corridor), or resulting from the activity of the Operator on the powerline corridor. This agreement applies without regard to whether a release is caused by the operator, its agent, or unrelated third parties.
- 4. There will be no clearing or blading of the powerline corridor unless otherwise agreed to in writing by the Authorized Officer.
- 5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The operator shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this powerline corridor, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the operator without liability or expense to the United States.

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- 6. Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.
- 7. The operator shall minimize disturbance to existing fences and other improvements on public lands. The operator is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The operator will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 8. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.
- 9. Upon cancellation, relinquishment, or expiration of this APD, the operator shall comply with those abandonment procedures as prescribed by the Authorized Officer.
- 10. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this APD, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.
- 11. Special Stipulations:
  - For reclamation remove poles, lines, transformer, etc. and dispose of properly. Fill in any holes from the poles removed.
- 12. Karst stipulations for overhead electric lines
  - Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
  - The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
  - No further construction will be done until clearance has been issued by the Authorized Officer.
  - Special restoration stipulations or realignment may be required.

## RANGELAND MITIGATION FOR PIPELINES

### 4.5.1 Fence Requirement

Where entry is granted across a fence line, the fence must be braced and tied off on both sides of the passageway with H-braces prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment operator prior to crossing any fence(s).

### 4.5.2 Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at road-fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

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#### 4.5.3 Livestock Watering Requirement

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment operator if any damage occurs to structures that provide water to livestock.

- Livestock operators will be contacted, and adequate crossing facilities will be provided as needed to ensure livestock are not prevented from reaching water sources because of the open trench.
- Wildlife and livestock trails will remain open and passable by adding soft plugs (areas where the trench is excavated and replaced with minimal compaction) during the construction phase. Soft plugs with ramps on either side will be left at all well-defined livestock and wildlife trails along the open trench to allow passage across the trench and provide a means of escape for livestock and wildlife that may enter the trench.
- Trenches will be backfilled as soon as feasible to minimize the amount of open trench. The Operator will avoid leaving trenches open overnight to the extent possible and open trenches that cannot be backfilled immediately will have escape ramps (wooden) placed at no more than 2,500 feet intervals and sloped no more than 45 degrees.

## 5. PRODUCTION (POST DRILLING)

### 5.1 WELL STRUCTURES & FACILITIES

### 5.1.1 Placement of Production Facilities

Production facilities must be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

### 5.1.2 Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

#### 5.1.3. Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

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### 5.1.4. Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

### 5.1.5. Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

# 6. RECLAMATION

Stipulations required by the Authorized Officer on specific actions may differ from the following general guidelines

## 6.1 ROAD AND SITE RECLAMATION

Any roads constructed during the life of the well will have the caliche removed or linear burial. If contaminants are indicated then testing will be required for chlorides and applicable contaminate anomalies for final disposal determination (disposed of in a manner approved by the Authorized Officer within Federal, State and Local statutes, regulations, and ordinances) and seeded to the specifications in sections 6.5 and 6.6.

## 6.2 EROSION CONTROL

Install erosion control berms, windrows, and hummocks. Windrows must be level and constructed perpendicular to down-slope drainage; steeper slopes will require greater windrow density. Topsoil between windrows must be ripped to a depth of at least 12", unless bedrock is encountered. Any large boulders pulled up during ripping must be deep-buried on location. Ripping must be perpendicular to down-slope. The surface must be left rough in order to catch and contain rainfall on-site. Any trenches resulting from erosion cause by run-off shall be addressed immediately.

## 6.3 INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations must undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators must work with BLM surface protection specialists (BLM\_NM\_CFO\_Construction\_Reclamation@blm.gov) to devise the best strategies to reduce the size of the location. Interim reclamation must allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche and any other surface material is required. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided in section 6.6.

Upon completion of interim reclamation, the operator shall submit a Sundry Notice, Subsequent Report of Reclamation (Form 3160-5).

### 6.4 FINAL ABANDONMENT & RECLAMATION

Prior to surface abandonment, the operator shall submit a Notice of Intent Sundry Notice and reclamation plan.

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding will be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM. After earthwork and seeding is completed, the operator is required to submit a Sundry Notice, Subsequent Report of Reclamation.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (BLM\_NM\_CFO\_Construction\_Reclamation@blm.gov).

### **6.5 SEEDING TECHNIQUES**

Seeds shall be hydro-seeded, mechanically drilled, or broadcast, with the broadcast-seeded area raked, ripped or dragged to aid in covering the seed. The seed mixture shall be evenly and uniformly planted over the disturbed area.

### 6.6 SOIL SPECIFIC SEED MIXTURE

The lessee/permitee shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed land application will be accomplished by mechanical planting using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area. Smaller/heavier seeds tend to drop the bottom of the drill and are planted first; the operator shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory BLM or Soil Conservation

District stand is established as determined by the Authorized Officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding or until several months of precipitation have occurred, enabling a full four months of growth, with one or more seed generations being established.

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## Seed Mixture 2, for Sandy Site

Species to be planted in pounds of pure live seed\* per acre:

### Species

	l <u>b/acre</u>
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

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# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	ХТО
LEASE NO.:	NMNM05039A
LOCATION:	Sec. 28, T.25 S, R 30 E
COUNTY:	Eddy County, New Mexico 🔻
WELL NAME & NO.:	Poker Lake Unit 21 BD 506H
SURFACE HOLE FOOTAGE:	136'/N & 2667'/E
<b>BOTTOM HOLE FOOTAGE:</b>	50'/S & 2530'/W

## COA

H <sub>2</sub> S	C	No	0	Yes
Potash /	None	Secretary	C R-111-Q	Open Annulus
WIPP	Choose	e an option (including bla	nk option.)	$\Box$ wipp
Cave / Karst	💽 Low	C Medium	🔘 High	Critical
Wellhead	Conventional	Multibowl	C Both	C Diverter
Cementing	Primary Squeeze	🗆 Cont. Squeeze	EchoMeter	DV Tool
Special Req	🗖 Capitan Reef	Water Disposal	COM	🗹 Unit
Waste Prev.	C Self-Certification	C Waste Min. Plan	• APD Submitted p	prior to 06/10/2024
Additional	Flex Hose	Casing Clearance	Pilot Hole	Break Testing
Language	□ Four-String	Offline Cementing	🗖 Fluid-Filled	

## A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

## **B.** CASING

- 1. The **9-5/8** inch surface casing shall be set at approximately **1000** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping

Page 1 of 9

cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of <u>8 hours</u> or <u>500 pounds compressive strength</u>, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

## Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is: Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the Brushy Canyon at 6229'.
- b. Second stage: Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

**Operator has proposed to pump down Surface X** <u>Intermediate 1</u> annulus after primary cementing stage. <u>Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the Surface casing to tieback</u> <u>requirements listed above after the second stage BH to verify TOC.</u> Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

If cement does not reach surface, the next casing string must come to surface.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

## C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
  - 2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000** (**5M**) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

## **D. SPECIAL REQUIREMENT (S)**

## **Unit Wells**

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

### **Commercial Well Determination**

A commercial well determination shall be submitted after production has been established for at least six months. (**This is not necessary for secondary recovery unit wells**)

## **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

## **Offline Cementing**

Contact the BLM prior to the commencement of any offline cementing procedure.

Engineer may elect to vary this language. Speak with Chris about implementing changes and whether that change seems reasonable.

## **Casing Clearance**

String does not meet 0.422" clearance requirement per 43 CFR 3172. Cement tieback requirement increased 100' for Production casing tieback. Operator may contact approving engineer to discuss changing casing set depth or grade to meet clearance requirement.

# **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

## **Contact Eddy County Petroleum Engineering Inspection Staff:**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; <u>BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV</u>; (575) 361-2822

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

## A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

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- Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least <u>8 hours</u>. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. <u>Wait on cement (WOC) for Water Basin:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## **B. PRESSURE CONTROL**

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's

## M Approval Date: 03/14/2025

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requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve

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open. (only applies to single stage cement jobs, prior to the cement setting up.)

- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR 3172 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR 3172.

## C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

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## **D. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Approved by Zota Stevens on 3/11/2025

575-234-5998 / zstevens@blm.gov

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NAME:		Signed on: 11/17/2023
Title:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		
Field		
Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

## **WAFMSS**

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

#### **APD ID:** 10400095872

Operator Name: XTO PERMIAN OPERATING LLC Well Name: POKER LAKE UNIT 21 BD Well Type: OIL WELL

#### Submission Date: 11/17/2023

Well Number: 506H Well Work Type: Drill Highlighted data reflects the most recent changes Show Final Text

#### Section 1 - General

**APD ID:** 10400095872

BLM Office: Carlsbad Federal/Indian APD: FED

Lease number: NMNM05039A

Surface access agreement in place?

Agreement in place? YES

Agreement number: NMNM71016X

Agreement name: POKER LAKE UNIT

Keep application confidential? Y

Permitting Agent? NO

Operator letter of

 Tie to previous NOS?
 N
 Submission Date: 11/17/2023

 User: JEAN COOPER
 Title: Regulatory Analyst

 Is the first lease penetrated for production Federal or Indian? FED

 Lease Acres:

 Allotted?

Federal or Indian agreement: FEDERAL

APD Operator: XTO PERMIAN OPERATING LLC

## **Operator Info**

Operator Organization Name: XTO PERMIAN OPERATING LLC Operator Address: 6401 HOLIDAY HILL ROAD BLDG 5 Operator PO Box: Operator City: MIDLAND State: TX Operator Phone: (432)683-2277

**Operator Internet Address:** 

## **Section 2 - Well Information**

Well in Master Development Plan? NOMaster Development Plan name:Well in Master SUPO? NOMaster SUPO name:Well in Master Drilling Plan? NOMaster Drilling Plan name:Well Name: POKER LAKE UNIT 21 BDWell Number: 506HWell API Number:Field/Pool or Exploratory? Field and PoolField Name: CORRAL CANYONPool Name: BONE SPRING<br/>SOUTH



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## Application Data 03/17/2025

Operator Name: XTO PERMIAN OPERATING LLC Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

Is the proposed well in an area containing other mineral resources? USEABLE WATER, NATURAL GAS, OIL

Is the proposed well in a Helium production are	ea? N Use Existing Well Pad?	N New surface disturbance?
Type of Well Pad: MULTIPLE WELL	Multiple Well Pad Name: POKER LAKE UNIT 21 B	Number: E
Well Class: HORIZONTAL	Number of Legs: 1	
Well Work Type: Drill		
Well Type: OIL WELL		
Describe Well Type:		
Well sub-Type: INFILL		
Describe sub-type:		
Distance to town: Distance	e to nearest well: 30 FT	Distance to lease line: 136 FT
Reservoir well spacing assigned acres Measur	ement: 320 Acres	
Well plat: PLU_21_BD_506H_C102_2025011	3125103.pdf	
Well work start Date: 07/24/2023	Duration: 45 DAYS	

## **Section 3 - Well Location Table**

Survey Type: RECTANGULAR

**Describe Survey Type:** 

Datum: NAD83

Survey number:

Vertical Datum: NAVD88

#### Reference Datum: GROUND LEVEL

NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
36 FNL	266	FEL	25S	30E	28	Aliquot	32.10802	-	EDD	NEW	NEW	F	NMNM	323	0	0	Y
	7					NWNE		103.8861	Y	MEXI	MEXI		05039A	0			
								48		00	00						
36 FNL	266	FEL	25S	30E	28	Aliquot	32.10802	-	EDD	NEW	NEW	F	NMNM	-	955	952	Y
	7					NWNE		103.8861	Y	MEXI	MEXI		05039A	629	0	4	
								48		CO	CO			4			
00 FNL	253	FW	25S	30E	28	Aliquot	32.10811	-	EDD	NEW	NEW	F	NMNM	-	105	100	Y
	0	L				NENW	7	103.8866	Y	MEXI	MEXI		05039A	684	00	77	
								38		co	CO			7			
	6 FNL	Jopulus         Jopulus <t< td=""><td><ul> <li>Jo FNL 253 FW 0</li> <li>M FNL 253 FW 0</li> <li>M FNL 253 FW 0</li> </ul></td><td>JoFNL266FEL25S6FNL266FEL25S77266FEL25S6FNL266FEL25S7253FW25S0FNL253FW25S</td><td>JunctJunctJunctJunctJunctJobFNL266FEL25S30EJobFNL266FEL25S30EJobFNL253FW25S30EJobFNL253FW25S30E</td><td>Junctication         Junctication         Junctication&lt;</td><td>Image: section of the section of th</td><td>Image: Log bit with the section of the sect</td><td>Job         Job         <thjob< th=""> <thjob< th=""> <thjob< th=""></thjob<></thjob<></thjob<></td><td>Image: Note of the section o</td><td>Image: Normal system         Image: No</td><td>Image: Normal System         Image: No</td><td>Image: Normal system         Image: No</td><td>Image: Normal state         Image: Normal state</td><td>Image: Normal state         Image: Normal state</td><td>Image: Volume of the system of the</td><td>Image: Normal system         Image: No</td></t<>	<ul> <li>Jo FNL 253 FW 0</li> <li>M FNL 253 FW 0</li> <li>M FNL 253 FW 0</li> </ul>	JoFNL266FEL25S6FNL266FEL25S77266FEL25S6FNL266FEL25S7253FW25S0FNL253FW25S	JunctJunctJunctJunctJunctJobFNL266FEL25S30EJobFNL266FEL25S30EJobFNL253FW25S30EJobFNL253FW25S30E	Junctication         Junctication<	Image: section of the section of th	Image: Log bit with the section of the sect	Job         Job <thjob< th=""> <thjob< th=""> <thjob< th=""></thjob<></thjob<></thjob<>	Image: Note of the section o	Image: Normal system         Image: No	Image: Normal System         Image: No	Image: Normal system         Image: No	Image: Normal state         Image: Normal state	Image: Normal state         Image: Normal state	Image: Volume of the system of the	Image: Normal system         Image: No

## Operator Name: XTO PERMIAN OPERATING LLC

## Well Name: POKER LAKE UNIT 21 BD

#### Well Number: 506H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
EXIT	100	FSL	253	FW	25S	30E	33	Aliquot	32.07939	-	EDD	NEW	NEW	F	NMNM	-	209	100	Y
Leg			0	L				SESW	2	103.8867	Y	MEXI	MEXI		05039A	684	00	77	
#1										16		00	CO			1			
BHL	50	FSL	253	FW	25S	30E	33	Aliquot	32.07925	-	EDD	NEW	NEW	F	NMNM	-	209	100	Y
Leg			0	L				SESW	5	103.8867	Y	MEXI	MEXI		05039A	684	29	77	
#1										11		00	00			1			

<u>C-1(</u>												Pavisad July 0, 20
	<u>)2</u>		Fne	rov N	Sta Ainerals	te of No & Natur	ew Mexico	Departs	nent			Revised July 9, 20.
Submit E	llectronically		LIIC	ngy, N O	IL CON	SERVA	TION DIVIS	ION	nem			Initial Submittal
Via OCD	Permitting			U.		oliv ( )		1011		Submitt Type:	<sup>al</sup> 🗆	Amended Report
												As Drilled
				,	WELLIO		INFORMATION					
API N	umber	00	Pool Code	13354		Pool Nam	<sup>e</sup> Corral Car	iyon; Bo	ne Sprin	g, Sou	th	
30-0 Proper	015- 564 ty Code	.09	Property Name						1		Well Ni	umber
ODCI	3255	597	On surface Name	POKE	ER LAKE UI	NIT 21 BD					506H	
373	075		Operator Name	XTO I	PERMIAN C	DPERATIN	G, LLC.				Ground 3,230	Level Elevation
Surface	e Owner:	State 🗌 F	ee 🗌 Tribal 🔀	Federal			Mineral Owner:	State	Fee 🗌 Tribal	l 🛛 Fede	ral	
					<b>.</b>	Surface	Location					
B	Section 28	Township 25 S	2 Range 3 30 E	Lot	Ft. from N/ 136'	/S FNL	Ft. from E/W 2,667' FEL	Latitude 32.108	020 -	ngitude -103.886	148	County EDDY
UL.	Section	Township	n Range	Lot	B Ft from N	ottom Ho /s	le Location Et from E/W	Latitude	Le	ngitude		County
N	33	25 S	30 E	Lot	50' F	SL	2,530' FWL	32.079	255	-103.886	717	EDDY
Dedica 320	nted Acres	Infill or D	efining Well ILL	Definin	g Well API		Overlapping Spacing N	Unit (Y/N)	Consolidat U	tion Code		
Order !	Numbers.						Well setbacks are und	ler Common	Ownership:	🛛 Yes 🛛	] No	
					ī	Kick Off I	Point (KOP)					
UL	Section	Township	p Range	Lot	Ft. from N	/S	Ft. from E/W	Latitude	Lo	ongitude		County
В	28	25 S	30 E		136'	FNL	2,667' FEL	32.108	020 -	-103.886	148	EDDY
UL	Section	Township	p Range	Lot	Ft. from N	/S	Ft. from E/W	Latitude	La	ongitude		County
С	28	25 S	30 E		100'	FNL	2,530' FWL	32.108	117 -	-103.886	638	EDDY
UL	Section	Townshin	p Range	Lot	Et. from N	ast Take l /s	Point (LTP) Ft. from E/W	Latitude	La	mgitude		County
N	33	25 S	30 E		100'	FSL	2,530' FWL	32.079	392	-103.886	716	EDDY
Unitize	ed Area or Are	ea of Unifor NMI	m Interest NM-071016X	Spacin	g Unit Type	🛛 Horizon	tal 🗌 Vertical	G	round Floor E	elevation:	3,230'	
OPE	RATOR C	ERTIFIC	ATIONS				SURVEYOR O	CERTIFIC	CATIONS			
I hereł	w certify that	the informat	ion contained her	ein is true	e and complete	e to the	I hereby certify that	at the well la	cation shown	on this p	lat was	plotted from field
best of interes	my knowledge t or unleased	e and belief, mineral inter	and that this orgo rest in the land in	unization cluding th	either owns a 1e proposed bi	working ottom hole	notes of actual sur is true and correct	veys made l to the best	y me or unde. of my belief.	r my supe	rvision,	and that the same
locatio an owr	n or has a rig 1er of such a n	ht to drill thi nineral or we	is well at this loca orking interest, or	tion purs to a volu	uant to a cont ntary pooling	ract with	I, TIM C. PAPPAS, NEW 21209, DO HEREBY CE ACTUAL SURVEY ON TH	MEXICO PRO RTIFY THAT THE GROUND UP	ESSIONAL SURV IS SURVEY PLAT ON WHICH IT IS	EYOR NO. T AND THE S BASED		C. PAO
agreen	nent or a comp	oulsory pool	ing order heretofd	ore entere	d by the divisi	ion.	WERE PERFORMED BY I THAT I AM RESPONSIBL MEETS THE MINIMUM ST	ME OR UNDER E FOR THIS S TANDARDS FOR	MY DIRECT SU URVEY, THAT TH SURVEYING IN	PERVISION; IIS SURVEY		W MEXION
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interes comple	t in each tract eted interval w	(in the targe ill be locate	2t pool or formati d or obtained a co	on) in wh ompulsory	ich any part o v pooling form	of the well's 1 the	_M	_				21209
divisio	n.	1					TIM C. PAPPAS REGISTERED PROFESSIO STATE OF NEW MEXICO	NAL LAND SU NO. 21209	RVEYOR	\	POTTS	RYL
Sar	nanth	a We	<u>is 3/</u>	/10/20	25						~	IONAL SUT
	ure		Ε	Date			Signature and Seal of	of Profession	al Surveyor			
Signati	antha We	eis										
Sama							Certificate Number		Date of Surv	rey		
Signat Sama Printed	l Name		exxonmoh	il.com	l		TIM C. PAPPAS	5 21209	11/9/20	)23		
Signati Sama Printed Sam Email	l Name antha.r.b Address	artnik@	<u>examinou</u>									
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## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
15213060	QUATERNARY	3230	0	Ó	ALLUVIUM	USEABLE WATER	N
15213061	RUSTLER	2003	1227	1227	ANHYDRITE, SANDSTONE	USEABLE WATER	N
15213062	SALADO	1681	1549	1549	SALT	NONE	N
15213059	BASE OF SALT	-327	3557	3557	SALT	NONE	N
15213063	DELAWARE	-508	3738	3738	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
15213057	BRUSHY CANYON	-2999	6229	6229	SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
15213064	BONE SPRING	-4322	7552	7552	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y
15213065	BONE SPRING 1ST	-5262	8492	8492	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y
15213066	BONE SPRING 2ND	-6121	9351	9351	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y
15213058	BONE SPRING 3RD	-6797	10027	10027	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y

## Section 2 - Blowout Prevention

#### Pressure Rating (PSI): 5M

Rating Depth: 10077

Equipment: Once the permanent WH is installed on the surface casing, the blow out preventer equipment (BOP) will consist of a 5M Hydril Annular and a 10M Triple Ram BOP. XTO will use a 3 String Multi-Bowl system which is attached.

#### Requesting Variance? YES

Variance request: A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells. A break testing variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53.

#### Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

**Testing Procedure:** All BOP testing will be done by an independent service company. Operator will test as per 43 CFR 3172.

#### Choke Diagram Attachment:

PLU\_21\_BD\_10MCM\_20250131044144.pdf

#### **BOP Diagram Attachment:**

PLU\_21\_BD\_5M10MBOP\_20250131044916.pdf

## **Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	12.2 5	9.625	NEW	API	N	0	1449	0	1449	3230	1781	1449	J-55	40	BUTT	3.92	1.48	DRY	10.8 7	DRY	10.8 7
2	INTERMED IATE	8.75	7.625	NEW	API	Y	0	9400	0	9374	3230	-6144	9400	L-80	29.7	FJ	2.13	1.81	DRY	2.53	DRY	2.53
3	PRODUCTI ON	6.75	5.5	NEW	NON API	Y	0	20929	0	10077	3230	-6847	20929	P- 110	23	OTHER - Freedom HTQ/Talon HTQ	2.41	1.21	DRY	6.12	DRY	6.12

#### **Casing Attachments**

Casing ID: 1 String SURFACE

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

Casing Attachment	ts	
Casing ID: 2	String	INTERMEDIATE
Inspection Doc	ument:	
Spec Documen	t:	
Tapered String	Spec:	
Casing Design	Assumptions and V	Vorksheet(s):
Casing ID: 3	String	PRODUCTION
Inspection Doc	ument:	
Spec Documen	t:	
Freedom_	Semi_Premium_5.50	000_23.0000_0.4150P110_RY_20250131031000.pdf
TalonSe	emiflush_HTQ_RD_5	.5000_23.0000_0.4150P110_RY_20250131031001.pdf
Tapered String	Spec:	
PLU_21_E	3D_506H_Csg_2025	0106082836.pdf
Casing Design	Assumptions and V	Vorksheet(s):
PLU_21_E	3D_506H_Csg_2025	0106082854.pdf

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1449	380	1.87	12.9	710.6	100	EconoCem- HLTRRC	NA
SURFACE	Tail		0	1449	130	1.35	14.8	175.5	100	Class C	2% CaCl
INTERMEDIATE	Lead		0	6229	700	1.33	14.8	931	100	Class C	NA
INTERMEDIATE	Tail		6229	9400	290	1.35	14.8	391.5	100	Class C	NA

## **Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		9100	9600	20	2.69	11.5	53.8	30	NeoCem	NA
PRODUCTION	Tail		9600	2092 9	810	1.51	13.2	1223. 1	30	VersaCem	NA

## Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

**Describe what will be on location to control well or mitigate other conditions:** The necessary mud products for weight addition and fluid loss control will be on location at all times.

**Describe the mud monitoring system utilized:** Spud with fresh water/native mud. Drill out from under surface casing with Saturated Salt solution. Saturated Salt mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

## **Circulating Medium Table**

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	НА	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1449	3738	SALT SATURATED	10.5	11							
3738	9400	OTHER : BDE	9.7	10.2							
0	1449	WATER-BASED MUD	8.7	9.2							
9400	2092 9	OIL-BASED MUD	11.5	12							

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

## Section 6 - Test, Logging, Coring

#### List of production tests including testing procedures, equipment and safety measures:

Mud Logger: Mud Logging Unit (2 man) below intermediate casing. Open hole logging will not be done on this well. List of open and cased hole logs run in the well:

CEMENT BOND LOG, GAMMA RAY LOG, DIRECTIONAL SURVEY, MEASUREMENT WHILE DRILLING, MUD LOG/GEOLOGICAL LITHOLOGY LOG, **Coring operation description for the well:** 

No coring is planned for the well.

## **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 6288

Anticipated Surface Pressure: 4071

Anticipated Bottom Hole Temperature(F): 185

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

**Contingency Plans geoharzards description:** 

**Contingency Plans geohazards** 

Hydrogen Sulfide drilling operations plan required? YES

#### Hydrogen sulfide drilling operations

XTO\_Energy\_H2S\_Plan\_Updated\_20240809143732.pdf

## **Section 8 - Other Information**

### Proposed horizontal/directional/multi-lateral plan submission:

PLU\_21\_BD\_506H\_DD\_20231115181006.pdf

## Other proposed operations facets description:

## Other proposed operations facets attachment:

PLU\_21\_BD\_MBS\_20240809145239.pdf

PLU\_21\_BD\_506H\_Cmt\_20250110073610.pdf

PLU\_21\_BD\_H2S\_DiaC\_20250110074227.pdf

PLU\_21\_BD\_H2S\_DiaE\_20250131022906.pdf

Poker\_Lake\_Unit\_21\_BD\_GCP\_20250131022907.pdf

## Other Variance attachment:

BOP\_Break\_Test\_Variance\_20240809145354.pdf Offline\_Cement\_Variance\_Surf\_\_\_Interm\_Csg\_20240809145355.pdf Spudder\_Rig\_Request\_20250106083837.pdf Flex\_Hose\_Updated\_20250106083837.pdf





MECHANICAL PROPERTIES	Pipe	USS-FREEDOM HTQ <sup>®</sup>		
Minimum Yield Strength	110,000		psi	
Maximum Yield Strength	125,000		psi	
Minimum Tensile Strength	125,000		psi	
DIMENSIONS	Pipe	USS-FREEDOM HTQ <sup>®</sup>		
Outside Diameter	5.500	6.300	in.	
Wall Thickness	0.415		in.	
Inside Diameter	4.670	4.670	in.	
Standard Drift	4.545	4.545	in.	
Alternate Drift			in.	
Nominal Linear Weight, T&C	23.00		lb/ft	
Plain End Weight	22.56		lb/ft	
SECTION AREA	Pipe	USS-FREEDOM HTQ <sup>®</sup>		
Critical Area	6.630	6.630	sq. in.	
Joint Efficiency		100.0	%	
PERFORMANCE	Pipe	USS-FREEDOM HTQ <sup>®</sup>		
Minimum Collapse Pressure	14,540	14,540	psi	
Minimum Internal Yield Pressure	14,520	14,520	psi	
Minimum Pipe Body Yield Strength	729,000		lb	
Joint Strength		729,000	lb	
Compression Rating		729,000	lb	
Reference Length [4]		21,138	ft	
Maximum Uniaxial Bend Rating [2]		91.7	deg/100 ft	
MAKE-UP DATA	Pipe	USS-FREEDOM HTQ <sup>®</sup>		
Make-Up Loss		4.13	in.	
Minimum Make-Up Torque [3]		15,000	ft-lb	
Maximum Make-Up Torque [3]		21,000	ft-lb	
Maximum Operating Torque[3]		32,500	ft-lb	

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).

2. Uniaxial bending rating shown is structural only, and equal to compression efficiency.

3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).

4. Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

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U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com

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## U. S. Steel Tubular Products 5.500" 23.00lb/ft (0.415" Wall) P11

Wall)	P110 RY	USS-TALON HTQ™	RD

MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000		psi	
Maximum Yield Strength	125,000		psi	
Minimum Tensile Strength	125,000		psi	
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		
Outside Diameter	5.500	5.900	in.	
Wall Thickness	0.415		in.	
Inside Diameter	4.670	4.670	in.	
Standard Drift	4.545	4.545	in.	
Alternate Drift			in.	
Nominal Linear Weight, T&C	23.00		lb/ft	
Plain End Weight	22.56		lb/ft	
SECTION AREA	Pipe	USS-TALON HTQ™ RD		
Critical Area	6.630	6.425	sq. in.	
Joint Efficiency		96.9	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		
Minimum Collapse Pressure	14,540	14,540	psi	
Minimum Internal Yield Pressure	14,520	14,520	psi	
Minimum Pipe Body Yield Strength	729,000		lb	
Joint Strength		707,000	lb	
Compression Rating		707,000	lb	
Reference Length		20,490	ft	[5]
Maximum Uniaxial Bend Rating		88.9	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		
Make-Up Loss		5.58	in.	
Minimum Make-Up Torque		20,800	ft-lb	[4]
Maximum Make-Up Torque		23,800	ft-lb	[4]
Maximum Operating Torque		39,800	ft-lb	[4]

## **Notes**

- 1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- 2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.

3. Uniaxial bend rating shown is structural only.

4. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).

- 5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- 6. Coupling must meet minimum mechanical properties of the pipe.

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U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com

## **Casing Assumptions**

Page 5	6 0	f 139
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sing Design									
Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 1449'	9.625	40	J-55	BTC	New	1.48	3.92	10.87
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.48	2.65	2.00
8.75	4000' - 9400'	7.625	29.7	HC L-80	Flush Joint	New	1.81	2.13	2.53
6.75	0' – 9300'	5.5	23	RY P-110	Semi-Premium/Freedom HTQ	New	1.21	2.61	2.25
6.75	9300' - 9800'	5.5	23	RY P-110	Semi-Flush/Talon HTQ	New	1.21	2.48	5.48
6.75	9800' - 20929'	5.5	23	RY P-110	Semi-Flush/Talon HTQ	New	1.21	2.41	6.12
					;				

## **Casing Assumptions**

ng Design									
Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 1449'	9.625	40	J-55	BTC	New	1.48	3.92	10.87
8.75	0' - 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.48	2.65	2.00
8.75	4000' - 9400'	7.625	29.7	HC L-80	Flush Joint	New	1.81	2.13	2.53
6.75	0' – 9300'	5.5	23	RY P-110	Semi-Premium/Freedom HTQ	New	1.21	2.61	2.25
6.75	9300' - 9800'	5.5	23	RY P-110	Semi-Flush/Talon HTQ	New	1.21	2.48	5.48
6.75	9800' - 20929'	5.5	23	RY P-110	Semi-Flush/Talon HTQ	New	1.21	2.41	6.12
					·				



## HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN

## Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

### **Emergency Procedures**

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - o Detection of H<sub>2</sub>S, and
  - o Measures for protection against the gas,
  - o Equipment used for protection and emergency response.

#### Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

#### Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H₂S	1.189 Air = I	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = I	2 ppm	N/A	1000 ppm
		C a set a s		-	

#### **Contacting Authorities**

All XTO location personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

•

### CARLSBAD OFFICE – EDDY & LEA COUNTIES

3104 E. Greene St., Carlsbad, NM 88220 Carlsbad, NM	575-887-7329
<b>XTO PERSONNEL:</b> Will Dacus, Drilling Manager Brian Dunn, Drilling Supervisor Robert Bartels, Construction Execution Planner Andy Owens, EH & S Manager Frank Fuentes, Production Foreman	832-948-5021 832-653-0490 406-478-3617 903-245-2602 575-689-3363
SHERIFF DEPARTMENTS:	
Eddy County	575-887-7551
Lea County	5/5-590-5011
NEW MEXICO STATE POLICE:	575-392-5588
FIRE DEPARTMENTS: Carlsbad Eunice Hobbs Jal Lovington HOSPITALS:	911 575-885-2111 575-394-2111 575-397-9308 575-395-2221 575-396-2359 911
Carlsbad Medical Emergency	575-885-2111
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
AGENT NOTIFICATIONS: For Lea County: Bureau of Land Management – Hobbs New Mexico Oil Conservation Division – Hobbs	575-393-3612 575-393-6161
<b>For Eddy County</b> : Bureau of Land Management - Carlsbad New Mexico Oil Conservation Division - Artesia	575-234-5972 575-748-1283



## XTO Energy EDDY COUNTY, NM (NAD-27) POKER LAKE UNIT 21 BD 506H

OH

Plan: PERMIT

# **Standard Planning Report**

23 October, 2023



Phone: (505) 476-3460 Fax: (505) 476-3462

District II

District III

District IV

#### District I 1625 N. French Dr., Hobbs, NM 88240 State of New Mexico Phone: (575) 393-6161 Fax: (575) 393-0720 Energy, Minerals & Natural Resources Department 811 S. First St., Artesia, NM 88210 OIL CONSERVATION DIVISION Phone: (575) 748-1283 Fax: (575) 748-9720 1220 South St. Francis Dr. 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 Santa Fe, NM 87505 1220 S. St. Francis Dr., Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

	API Number 30-025	r		<sup>2</sup> Pool Code	e	" Pool Name				
<sup>4</sup> Property C	ode				<sup>5</sup> Property	Name			6	Well Number
	POKER LAKE UNIT 21 BD							506H		
<sup>7</sup> OGRID N	Ňo.				<sup>8</sup> Operator	Name				<sup>9</sup> Elevation
373075	5			XT	O PERMIAN OP	ERATING, LLC				3,230'
<sup>10</sup> Surface Location										
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	t/West line	County
В	28	25 S	30 E		136	NORTH	2,667	EA	ST	EDDY
			11 Bo	ttom Ho	le Location If	Different Fron	n Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	t/West line	County
Ν	33	25 S	30 E		50	SOUTH	2,530	WE	ST	EDDY
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint o	r Infill <sup>14</sup> (	Consolidation	Code 15 Or	rder No.					

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.





## Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	EDM XTO E EDDY POKE 506H OH PERM	5000.1.13 Sii Energy ′ COUNTY, N ER LAKE UNI	ngle User Db IM (NAD-27) T 21 BD		Local Co TVD Ref MD Refe North Re Survey (	Local Co-ordinate Reference:Well 506HTVD Reference:GL @ 3230.00usft (TBD)MD Reference:GL @ 3230.00usft (TBD)North Reference:GridSurvey Calculation Method:Minimum Curvature				
Project	EDDY	COUNTY, NI	M (NAD-27)							
Map System: Geo Datum: Map Zone:	US Stat NAD 19 New Me	e Plane 1927 27 (NADCON exico East 300	′ (Exact solut I CONUS) 01	ion)	System D	atum:	М	ean Sea Level		
Site	POKE	R LAKE UNIT	7 21 BD							
Site Position: From: Position Uncerta	Map i <b>nty</b> :	0.00	Nort East ) usft Slot	ning: ing: Radius:	403, 636,	833.80 usft 877.20 usft 13-3/16 "	Latitude: Longitude: Grid Conve	rgence:		32.1094838 -103.8912622 0.235 °
Well	506H									
Well Position	+N/-S +E/-W	-570.6 1,735.3	8 usft N 6 usft E	orthing: asting:		403,263.12 638,612.56	usft La usft Lo	titude: ngitude:		32.1078953 -103.8856653
Position Uncertai	inty	0.0	0 usft N	ellhead Elev	vation:	0.00	usft <b>Gr</b>	ound Level:		3,230.00 usft
Wellbore	OH									
Magnetics	Мос	del Name	Samp	le Date	Declina (°)	ation	Dip A (	Angle °)	Field St (n	trength T)
		IGRF2020		10/23/23		6.404		59.670		47,149
Design	PERM	IT								
Audit Notes:										
Version:			Pha	se:	PLAN	Tie	e On Depth:		0.00	
Vertical Section:		De	epth From (1	TVD)	+N/-S	+E	:/-W sft)	Dire	ection	
			0.00		0.00	(u 0.	.00	17	() 9.90	
Plan Sections										
Measured Depth Incl (usft)	ination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00 2,000.00 2,242.17 9,483.17 10,430.35 20,879.41 20,929.41	0.00 0.00 4.84 4.84 90.00 90.00 90.00	0.00 0.00 346.89 346.89 179.90 179.90 179.90	0.00 2,000.00 2,241.88 9,457.02 10,077.00 10,077.00 10,077.00	0.00 0.00 9.96 605.40 34.36 -10,414.68 -10,464.68	0.00 0.00 -2.32 -141.02 -151.85 -133.50 -133.41	0.00 0.00 2.00 0.00 10.00 0.00 0.00	0.00 0.00 2.00 0.00 8.99 0.00 0.00	0.00 0.00 0.00 -17.63 0.00 0.00	0.000 0.000 346.887 0.000 -166.943 5 0.000 5	506H_FTP 506H_LTP 506H_BHI

.



### Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 506H
Company:	XTO Energy	TVD Reference:	GL @ 3230.00usft (TBD)
Project:	EDDY COUNTY, NM (NAD-27)	MD Reference:	GL @ 3230.00usft (TBD)
Site:	POKER LAKE UNIT 21 BD	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00 200.00 300.00 400.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	100.00 200.00 300.00 400.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	
500.00 600.00 700.00 800.00 900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	500.00 600.00 700.00 800.00 900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
1,000.00 1,100.00 1,200.00 1,227.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	1,000.00 1,100.00 1,200.00 1,227.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	
<b>Rustler</b> 1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00 1,500.00 1,549.00	0.00 0.00 0.00	0.00 0.00 0.00	1,400.00 1,500.00 1,549.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	
Salado										
1,600.00 1,700.00	0.00 0.00	0.00 0.00	1,600.00 1,700.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	
1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 2.00 4.00	0.00 0.00 0.00 346.89 346.89	1,800.00 1,900.00 2,000.00 2,099.98 2,199.84	0.00 0.00 0.00 1.70 6.80	0.00 0.00 0.00 -0.40 -1.58	0.00 0.00 -1.70 -6.80	0.00 0.00 2.00 2.00	0.00 0.00 2.00 2.00	0.00 0.00 0.00 0.00 0.00	
2,242.17 2,300.00 2,400.00 2,500.00 2,600.00	4.84 4.84 4.84 4.84 4.84	346.89 346.89 346.89 346.89 346.89 346.89	2,241.88 2,299.51 2,399.15 2,498.79 2,598.43	9.96 14.72 22.94 31.16 39.39	-2.32 -3.43 -5.34 -7.26 -9.18	-9.97 -14.72 -22.95 -31.18 -39.40	2.00 0.00 0.00 0.00 0.00	2.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
2,700.00 2,800.00 2,900.00 3,000.00 3,100.00	4.84 4.84 4.84 4.84 4.84	346.89 346.89 346.89 346.89 346.89 346.89	2,698.08 2,797.72 2,897.36 2,997.01 3,096.65	47.61 55.83 64.06 72.28 80.50	-11.09 -13.01 -14.92 -16.84 -18.75	-47.63 -55.86 -64.08 -72.31 -80.54	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
3,200.00 3,300.00 3,400.00 3,500.00 3,562.00	4.84 4.84 4.84 4.84 4.84	346.89 346.89 346.89 346.89 346.89	3,196.29 3,295.93 3,395.58 3,495.22 3,557.00	88.73 96.95 105.17 113.40 118.49	-20.67 -22.58 -24.50 -26.41 -27.60	-88.76 -96.99 -105.21 -113.44 -118.54	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	
Base of Sa	lt									
3,600.00 3,700.00 3,743.65	4.84 4.84 4.84	346.89 346.89 346.89	3,594.86 3,694.51 3,738.00	121.62 129.84 133.43	-28.33 -30.25 -31.08	-121.67 -129.89 -133.48	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	
<b>Delaware</b> 3,800.00 3,900.00	4.84 4 84	346.89 346.89	3,794.15 3.893 79	138.06 146 29	-32.16 -34.08	-138.12 -146.35	0.00	0.00	0.00	
4,000.00 4,100.00 4,200.00 4,300.00	4.84 4.84 4.84 4.84	346.89 346.89 346.89 346.89	3,993.43 4,093.08 4,192.72 4,292.36	154.51 162.73 170.96 179.18	-35.99 -37.91 -39.82 -41.74	-154.57 -162.80 -171.03 -179.25	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	

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Page 3

COMPASS 5000.1 Build 74

.



## Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 506H
Company:	XTO Energy	TVD Reference:	GL @ 3230.00usft (TBD)
Project:	EDDY COUNTY, NM (NAD-27)	MD Reference:	GL @ 3230.00usft (TBD)
Site:	POKER LAKE UNIT 21 BD	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,400.00	4.84	346.89	4,392.01	187.40	-43.65	-187.48	0.00	0.00	0.00	
4,500.00	4.84	346.89	4,491.65	195.63	-45.57	-195.71	0.00	0.00	0.00	
4,600.00	4.84	346.89	4,591.29	203.85	-47.49	-203.93	0.00	0.00	0.00	
4,693.04	4.84	346.89	4,684.00	211.50	-49.27	-211.59	0.00	0.00	0.00	
Cherry Ca	nyon									
4,700.00	4.84	346.89	4,690.94	212.07	-49.40	-212.16	0.00	0.00	0.00	
4,800.00	4.84	346.89	4,790.58	220.30	-51.32	-220.38	0.00	0.00	0.00	
4,900.00	4.84	346.89	4,890.22	228.52	-53.23	-228.61	0.00	0.00	0.00	
5,000.00	4.84	346.89	4,989.86	236.74	-55.15	-236.84	0.00	0.00	0.00	
5,100.00	4.84	346.89	5,089.51	244.96	-57.06	-245.06	0.00	0.00	0.00	
5,200.00	4.04 4.84	340.09	5,169.15	255.19	-20.90	-200.29	0.00	0.00	0.00	
5,000.00	4.04	040.00	5,200.75	201.41	-00.00	-201.52	0.00	0.00	0.00	
5,400.00	4.84	346.89	5,388.44	269.63	-62.81	-269.74	0.00	0.00	0.00	
5,500.00	4.04	340.09	5,400.00	277.00	-04.73	-211.91	0.00	0.00	0.00	
5 700 00	4.04	346.89	5 687 36	200.00	-68 56	-200.20	0.00	0.00	0.00	
5,800.00	4.84	346.89	5,787.01	302.53	-70.47	-302.65	0.00	0.00	0.00	
5 900 00	4 84	346.89	5 886 65	310 75	-72 39	-310.88	0.00	0.00	0.00	
6 000 00	4 84	346.89	5 986 29	318.97	-74 30	-319 10	0.00	0.00	0.00	
6.100.00	4.84	346.89	6.085.94	327.20	-76.22	-327.33	0.00	0.00	0.00	
6,200.00	4.84	346.89	6,185.58	335.42	-78.13	-335.55	0.00	0.00	0.00	
6,243.58	4.84	346.89	6,229.00	339.00	-78.97	-339.14	0.00	0.00	0.00	
Brushy Ca	nyon									
6,300.00	4.84	346.89	6,285.22	343.64	-80.05	-343.78	0.00	0.00	0.00	
6,400.00	4.84	346.89	6,384.87	351.86	-81.97	-352.01	0.00	0.00	0.00	
6,500.00	4.84	346.89	6,484.51	360.09	-83.88	-360.23	0.00	0.00	0.00	
6,600.00	4.84	346.89	6,584.15	368.31	-85.80	-368.46	0.00	0.00	0.00	
6,700.00	4.84	346.89	6,683.79	376.53	-87.71	-376.69	0.00	0.00	0.00	
6,800.00	4.84	346.89	6,783.44	384.76	-89.63	-384.91	0.00	0.00	0.00	
6,900.00	4.84	346.89	6,883.08	392.98	-91.54	-393.14	0.00	0.00	0.00	
7,000.00	4.84	346.89	6,982.72	401.20	-93.46	-401.37	0.00	0.00	0.00	
7,100.00	4.84	340.89	7,082.37	409.43	-95.37	-409.59	0.00	0.00	0.00	
7,200.00	4.04	540.09	7,102.01	417.05	-97.29	-417.02	0.00	0.00	0.00	
7,294.33	4.84	346.89	7,276.00	425.41	-99.10	-425.58	0.00	0.00	0.00	
7 300 00		346.89	7 281 65	425.87	-00 21	-426.04	0.00	0.00	0.00	
7 400 00	4 84	346.89	7 381 29	434 10	-101 12	-434 27	0.00	0.00	0.00	
7,500.00	4.84	346.89	7,480.94	442.32	-103.04	-442.50	0.00	0.00	0.00	
7,571.32	4.84	346.89	7,552.00	448.18	-104.40	-448.36	0.00	0.00	0.00	
Bone Spri	ng									
7.600.00	4.84	346.89	7.580.58	450.54	-104.95	-450.72	0.00	0.00	0.00	
7,700.00	4.84	346.89	7,680.22	458.76	-106.87	-458.95	0.00	0.00	0.00	
7,725.87	4.84	346.89	7,706.00	460.89	-107.36	-461.08	0.00	0.00	0.00	
Avalon Up	per									
7,800.00	4.84	346.89	7,779.87	466.99	-108.78	-467.18	0.00	0.00	0.00	
7,900.00	4.84	346.89	7,879.51	475.21	-110.70	-475.40	0.00	0.00	0.00	
8,000.00	4.84	346.89	7,979.15	483.43	-112.61	-483.63	0.00	0.00	0.00	
8,100.00	4.84	346.89	8,078.79	491.66	-114.53	-491.86	0.00	0.00	0.00	
8,141.35	4.84	346.89	8,120.00	495.06	-115.32	-495.26	0.00	0.00	0.00	
8 200 00	Wer / Q/	346 80	8 179 11	100 88	_116 //	-500.09	0.00	0.00	0.00	
8,300.00	4 84	346 89	8.278.08	508 10	-118.36	-508.31	0.00	0.00	0.00	
8 300 02	1 94	3/6 20	8 270 00	509 19	_110 20	-508 39	0.00	0.00	0.00	
0,300.92	4.04	540.09	0,219.00	500.10	-110.30	-000.00	0.00	0.00	0.00	

10/23/23 9:56:58AM

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## Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 506H
Company:	XTO Energy	TVD Reference:	GL @ 3230.00usft (TBD)
Project:	EDDY COUNTY, NM (NAD-27)	MD Reference:	GL @ 3230.00usft (TBD)
Site:	POKER LAKE UNIT 21 BD	North Reference:	Crid
Well: Wellbore: Design:	506H OH PERMIT	Survey Calculation Method:	Minimum Curvature

#### Planned Survey

1st Bone Spring Lime $8,400.00$ $4.84$ $346.89$ $8,377.72$ $516.33$ $-120.28$ $-516.54$ $0.00$ $0.00$ $8,514.69$ $4.84$ $346.89$ $8,477.72$ $524.55$ $-122.19$ $-524.76$ $0.00$ $0.00$ $8,514.69$ $4.84$ $346.89$ $8,492.00$ $525.76$ $-122.47$ $-525.97$ $0.00$ $0.00$ $1st$ Bone Spring Sand $-128.07$ $-124.11$ $-532.99$ $0.00$ $0.00$ $8,700.00$ $4.84$ $346.89$ $8,676.65$ $541.00$ $-126.02$ $-541.21$ $0.00$ $0.00$ $8,800.00$ $4.84$ $346.89$ $8,776.30$ $549.22$ $-129.78$ $-557.34$ $0.00$ $0.00$ $8,800.00$ $4.84$ $346.89$ $8,875.94$ $557.44$ $-129.85$ $-557.67$ $0.00$ $0.00$ $9,000.00$ $4.84$ $346.89$ $9,975.22$ $573.89$ $-133.68$ $-574.12$ $0.00$ $0.00$ $9,200.00$ $4.84$ $346.89$ $9,775.22$ $573.89$ $-133.68$ $-574.12$ $0.00$ $0.00$ $9,200.00$ $4.84$ $346.89$ $9,775.22$ $573.89$ $-133.68$ $-574.12$ $0.00$ $0.00$ $9,200.00$ $4.84$ $346.89$ $9,274.51$ $590.33$ $-137.52$ $-590.57$ $0.00$ $0.00$ $9,300.00$ $4.84$ $346.89$ $9,374.15$ $598.66$ $-139.43$ $-596.89$ $0.00$ $0.00$ $9,550.00$ $2.25$ $208.98$ $9,523.79$ $60$	0 0.00 0 0.00
8,400.00         4.84         346.89         8,377.72         516.33         -120.28         -516.54         0.00         0.00           8,514.69         4.84         346.89         8,477.37         524.55         -122.19         -524.76         0.00         0.00           1st Bone Spring Sand	0 0.00 0 0 0.00 0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 0.00 0 0.00
8,514.69         4.84         346.89         8,492.00         525.76         -122.47         -525.97         0.00         0.00           1st Bone Spring Sand	0 0.00 0 0.00
1st Bone Spring Sand           8,600.00         4.84         346.89         8,577.01         532.77         -124.11         -532.99         0.00         0.00           8,700.00         4.84         346.89         8,676.65         541.00         -126.02         -541.21         0.00         0.00           8,800.00         4.84         346.89         8,776.30         549.22         -127.94         -549.44         0.00         0.00           8,806.05         4.84         346.89         8,875.94         557.12         -129.78         -557.34         0.00         0.00           9,000.00         4.84         346.89         8,975.58         565.66         -131.77         -565.89         0.00         0.00           9,100.00         4.84         346.89         9,075.22         573.89         -133.68         -574.12         0.00         0.00           9,300.00         4.84         346.89         9,274.51         590.33         -137.62         -580.57         0.00         0.00           9,300.00         4.84         346.89         9,374.15         598.56         -138.99         -596.89         0.00         0.00           9,483.17         4.84         346.89         9,457.02	0 0.00 0 0.00
5,000.00         4.64         346.89         8,377.01         532.77         -124.11         -352.99         0.00         0.00           8,700.00         4.84         346.89         8,776.30         549.22         -127.94         -549.44         0.00         0.00           8,896.05         4.84         346.89         8,872.00         557.12         -129.78         -557.34         0.00         0.00           2nd Bone Spring Lime	0 0.00 0 0.00
8,700.00       4.84       346.89       8,676.65       541.00       -126.02       -541.21       0.00       0.00         8,800.00       4.84       346.89       8,776.30       549.22       -127.94       -549.44       0.00       0.00         2nd Bone Spring Lime	0 0.00 0 0.00
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0,050.05         4.04         340.69         0,072.00         537.12         -129.78         -537.34         0.00         0.00           2nd Bone Spring Lime	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00
Bits         Bits <th< td=""><td>0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00</td></th<>	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00
9,000.00 4.84 346.89 9,075.22 573.89 -133.68 -574.12 0.00 0.00 9,200.00 4.84 346.89 9,174.87 582.11 -135.60 -582.35 0.00 0.00 9,300.00 4.84 346.89 9,274.51 590.33 -137.52 -590.57 0.00 0.00 9,376.76 4.84 346.89 9,351.00 596.65 -138.99 -596.89 0.00 0.00 9,376.76 4.84 346.89 9,374.15 598.56 -139.43 -598.80 0.00 0.00 9,400.00 4.84 346.89 9,457.02 605.40 -141.02 -605.64 0.00 0.00 9,500.00 3.23 340.11 9,473.81 606.53 -141.35 -606.78 10.00 -9.6 9,550.00 2.25 208.98 9,523.79 607.00 -142.30 -607.25 10.00 -1.9 9,600.00 7.05 188.77 9,573.61 603.11 -143.24 -603.36 10.00 9.60 9,650.00 12.01 185.04 9,622.90 594.88 -144.17 -595.14 10.00 9.90 9,673.72 14.38 184.17 9,646.00 589.49 -144.60 -589.74 10.00 9.90 9,673.72 14.38 184.17 9,646.00 589.49 -144.60 -589.74 10.00 9.90 9,670.00 21.99 182.61 9,718.41 565.74 -145.07 -582.65 10.00 9.90 9,670.00 21.99 182.61 9,718.41 565.74 -145.07 -582.65 10.00 9.90 9,650.00 21.99 182.61 9,718.41 565.74 -145.94 -565.99 10.00 9.90 9,800.00 26.99 182.05 9,763.90 545.04 -146.77 -545.29 10.00 9.90 9,800.00 26.99 182.05 9,763.90 545.04 -145.07 -582.65 10.00 9.90 9,800.00 36.98 181.35 9,848.62 492.16 -148.30 492.42 10.00 9.90 9,900.00 36.98 181.35 9,848.62 492.16 -148.30 492.42 10.00 9.90	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00
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9,200.00 4.84 346.89 9,174.87 582.11 -135.60 -582.35 0.00 0.00 9,300.00 4.84 346.89 9,274.51 590.33 -137.52 -590.57 0.00 0.00 9,376.76 4.84 346.89 9,351.00 596.65 -138.99 -596.89 0.00 0.00 9,400.00 4.84 346.89 9,374.15 598.56 -139.43 -598.80 0.00 0.00 9,483.17 4.84 346.89 9,457.02 605.40 -141.02 -605.64 0.00 0.00 9,500.00 3.23 340.11 9,473.81 606.53 -141.35 -606.78 10.00 -9.6 9,550.00 2.25 208.98 9,523.79 607.00 -142.30 -607.25 10.00 -1.9 9,660.00 7.05 188.77 9,573.61 603.11 -143.24 -603.36 10.00 9.60 9,650.00 12.01 185.04 9,622.90 594.88 -144.17 -595.14 10.00 9.90 9,673.72 14.38 184.17 9,646.00 589.49 -144.60 -589.74 10.00 9.90 9,750.00 17.00 183.48 9,671.30 582.40 -145.07 -582.65 10.00 9.90 9,750.00 21.99 182.61 9,718.41 565.74 -145.94 -565.99 10.00 9.90 9,750.00 21.99 182.61 9,718.41 565.74 -145.94 -565.99 10.00 9.90 9,850.00 31.98 181.65 9,807.41 520.45 -147.56 -520.71 10.00 9.90 9,850.00 36.98 181.35 9,848.62 492.16 -148.30 -492.42 10.00 9.90 9,950.00 41.98 181.11 9,887.20 460.39 -148.98 -460.65 10.00 9.90	0 0.00 0 0.00 0 0.00
9,300.00       4.84       346.89       9,274.51       590.33       -137.52       -590.57       0.00       0.00         9,376.76       4.84       346.89       9,351.00       596.65       -138.99       -596.89       0.00       0.00         2nd Bone Spring Sand       9,400.00       4.84       346.89       9,374.15       598.56       -139.43       -598.80       0.00       0.00         9,483.17       4.84       346.89       9,457.02       605.40       -141.02       -605.64       0.00       0.00         9,500.00       3.23       340.11       9,473.81       606.53       -141.35       -606.78       10.00       -9.66         9,550.00       2.25       208.98       9,523.79       607.00       -142.30       -607.25       10.00       -1.9         9,600.00       7.05       188.77       9,573.61       603.11       -143.24       -603.36       10.00       9.93         9,673.72       14.38       184.17       9,646.00       589.49       -144.60       -589.74       10.00       9.93         9,750.00       17.00       183.48       9,671.30       582.40       -145.07       -582.65       10.00       9.93         9,750.00	0 0.00
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9,650.00       12.01       185.04       9,622.90       594.88       -144.17       -595.14       10.00       9.9         9,673.72       14.38       184.17       9,646.00       589.49       -144.60       -589.74       10.00       9.9         3rd Bone Spring Lime       9,700.00       17.00       183.48       9,671.30       582.40       -145.07       -582.65       10.00       9.9         9,750.00       21.99       182.61       9,718.41       565.74       -145.94       -565.99       10.00       9.9         9,800.00       26.99       182.05       9,763.90       545.04       -146.77       -545.29       10.00       9.9         9,850.00       31.98       181.65       9,807.41       520.45       -147.56       -520.71       10.00       9.9         9,900.00       36.98       181.35       9,848.62       492.16       -148.30       -492.42       10.00       9.9         9,950.00       41.98       181.11       9,887.20       460.39       -148.98       -460.65       10.00       10.00	0 -40.40
9,673.72         14.38         184.17         9,646.00         589.49         -144.60         -589.74         10.00         9.99           3rd Bone Spring Lime         9,700.00         17.00         183.48         9,671.30         582.40         -145.07         -582.65         10.00         9.99           9,750.00         21.99         182.61         9,718.41         565.74         -145.94         -565.99         10.00         9.99           9,800.00         26.99         182.05         9,763.90         545.04         -146.77         -545.29         10.00         9.99           9,850.00         31.98         181.65         9,807.41         520.45         -147.56         -520.71         10.00         9.99           9,900.00         36.98         181.35         9,848.62         492.16         -148.30         -492.42         10.00         9.99           9,950.00         41.98         181.11         9,887.20         460.39         -148.98         -460.65         10.00         10.00	3 -7.46
3rd Bone Spring Lime           9,700.00         17.00         183.48         9,671.30         582.40         -145.07         -582.65         10.00         9.9           9,750.00         21.99         182.61         9,718.41         565.74         -145.94         -565.99         10.00         9.9           9,800.00         26.99         182.05         9,763.90         545.04         -146.77         -545.29         10.00         9.9           9,850.00         31.98         181.65         9,807.41         520.45         -147.56         -520.71         10.00         9.9           9,900.00         36.98         181.35         9,848.62         492.16         -148.30         -492.42         10.00         9.9           9,950.00         41.98         181.11         9,887.20         460.39         -148.98         -460.65         10.00         10.00	6 -3.69
9,700.00         17.00         183.48         9,671.30         582.40         -145.07         -582.65         10.00         9.9           9,750.00         21.99         182.61         9,718.41         565.74         -145.94         -565.99         10.00         9.9           9,800.00         26.99         182.05         9,763.90         545.04         -146.77         -545.29         10.00         9.9           9,850.00         31.98         181.65         9,807.41         520.45         -147.56         -520.71         10.00         9.9           9,900.00         36.98         181.35         9,848.62         492.16         -148.30         -492.42         10.00         9.9           9,950.00         41.98         181.11         9,887.20         460.39         -148.98         -460.65         10.00         10.00	
9,750.00       21.99       182.61       9,718.41       565.74       -145.94       -565.99       10.00       9.9         9,800.00       26.99       182.05       9,763.90       545.04       -146.77       -545.29       10.00       9.9         9,850.00       31.98       181.65       9,807.41       520.45       -147.56       -520.71       10.00       9.9         9,900.00       36.98       181.35       9,848.62       492.16       -148.30       -492.42       10.00       9.9         9,950.00       41.98       181.11       9,887.20       460.39       -148.98       -460.65       10.00       10.00	7 -2.63
9,850.00         31.98         181.65         9,807.41         520.45         -147.76         -520.71         10.00         9.99           9,900.00         36.98         181.35         9,848.62         492.16         -148.30         -492.42         10.00         9.99           9,950.00         41.98         181.11         9,887.20         460.39         -148.98         -460.65         10.00         10.00	5 -1.74 0 1.12
9,900.00 36.98 181.35 9,848.62 492.16 -148.30 -492.42 10.00 9.99 9,950.00 41.98 181.11 9,887.20 460.39 -148.98 -460.65 10.00 10.00	9 -0.79
9,900.00 36.98 181.35 9,846.62 492.16 -146.30 -492.42 10.00 9.9 9,950.00 41.98 181.11 9,887.20 460.39 -148.98 -460.65 10.00 10.0	0 0.60
3,330.00 +1.00 101.11 3,001.20 +00.00 -10.00 10.00 10.00	9 -0.60 0 -0.47
10.000.00 46.97 180.92 9.922.86 425.38 -149.60 -425.64 10.00 10.09	0 -0.39
10,050.00 51.97 180.75 9,955.34 387.39 -150.15 -387.65 10.00 10.0	0 -0.33
10,100.00 56.97 180.61 9,984.39 346.71 -150.63 -346.98 10.00 10.00	0 -0.29
10,116.15 58.59 180.57 9.993.00 333.05 -150.77 -333.32 10.00 10.04	0 -0.27
Harkey Sand	
10,150.00 61.97 180.48 10,009.78 303.66 -151.04 -303.92 10.00 10.00	0 -0.25
10,189.19 65.89 180.39 10,027.00 268.47 -151.31 -268.73 10.00 10.00	0 -0.24
3rd Bone Spring Shale	0 0 00
10,200.00 66.97 180.36 10,031.32 258.56 -151.37 -258.82 10.00	0 -0.23 0 -0.22
	0 -0.22
10,300.00 /6.9/ 180.15 10,062.24 163.59 -151.80 -163.86 10.00 10.00	0 -0.21
10,400,00 86.97 179.96 10,076.20 64.70 -151.89 -64.96 10,00 10,00	0 -0.20
10.430.35 90.00 179.90 10.077.00 34.36 -151.85 -34.62 10.00 10.0	0 -0.19
Landing Point - 506H_FTP	
10,500.00 90.00 179.90 10,077.00 -35.29 -151.73 35.02 0.00 0.0	0.00
10.600.00 90.00 179.90 10.077.00 -135.29 -151.55 135.02 0.00 0.00	
10,700.00 90.00 179.90 10,077.00 -235.29 -151.38 235.02 0.00 0.0	0.00
10,800.00 90.00 179.90 10,077.00 -335.29 -151.20 335.02 0.00 0.0	0 0.00 0 0.00
10,900.00 90.00 179.90 10,077.00 -435.29 -151.03 435.02 0.00 0.00	0 0.00 0 0.00 0 0.00
11,000.00 90.00 179.90 10,077.00 -535.29 -150.85 535.02 0.00 0.00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00
11,100.00 90.00 179.90 10,077.00 -635.29 -150.67 635.02 0.00 0.0	00.00 00.00 00.00 00.00 00.00 00.00

10/23/23 9:56:58AM



## Planning Report

Databaso:	EDM 5000 1 13 Single User Db	Local Co-ordinate Reference:	Well 506H
Compony	XTO Energy	Eocal Co-orumate Reference.	
company:	XTO Ellergy	TVD Reference:	GL @ 3230.00usft (TBD)
Project:	EDDY COUNTY, NM (NAD-27)	MD Reference:	GL @ 3230.00usft (TBD)
Site:	POKER LAKE UNIT 21 BD	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,200.00 11,300.00 11,400.00 11,500.00	90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00	-735.29 -835.29 -935.29 -1,035.29	-150.50 -150.32 -150.15 -149.97	735.02 835.02 935.02 1,035.02	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
11,600.00 11,700.00 11,800.00 11,900.00 12,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-1,135.29 -1,235.29 -1,335.29 -1,435.28 -1,535.28	-149.80 -149.62 -149.44 -149.27 -149.09	1,135.02 1,235.02 1,335.02 1,435.02 1,535.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
12,100.00 12,200.00 12,300.00 12,400.00 12,500.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-1,635.28 -1,735.28 -1,835.28 -1,935.28 -2,035.28	-148.92 -148.74 -148.57 -148.39 -148.21	1,635.02 1,735.02 1,835.02 1,935.02 2,035.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
12,600.00 12,700.00 12,800.00 12,900.00 13,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-2,135.28 -2,235.28 -2,335.28 -2,435.28 -2,535.28	-148.04 -147.86 -147.69 -147.51 -147.34	2,135.02 2,235.02 2,335.02 2,435.02 2,535.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
13,100.00 13,200.00 13,300.00 13,400.00 13,500.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-2,635.28 -2,735.28 -2,835.28 -2,935.28 -3,035.28	-147.16 -146.99 -146.81 -146.63 -146.46	2,635.02 2,735.02 2,835.02 2,935.02 3,035.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
13,600.00 13,700.00 13,800.00 13,900.00 14,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-3,135.28 -3,235.28 -3,335.28 -3,435.28 -3,535.28	-146.28 -146.11 -145.93 -145.76 -145.58	3,135.02 3,235.02 3,335.02 3,435.02 3,535.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
14,100.00 14,200.00 14,300.00 14,400.00 14,500.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-3,635.28 -3,735.28 -3,835.28 -3,935.28 -4,035.28	-145.40 -145.23 -145.05 -144.88 -144.70	3,635.02 3,735.02 3,835.02 3,935.02 4,035.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
14,600.00 14,700.00 14,800.00 14,900.00 15,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-4,135.28 -4,235.28 -4,335.28 -4,435.28 -4,535.28	-144.53 -144.35 -144.18 -144.00 -143.82	4,135.02 4,235.02 4,335.02 4,435.02 4,535.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
15,100.00 15,200.00 15,300.00 15,400.00 15,500.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-4,635.28 -4,735.28 -4,835.28 -4,935.28 -5,035.28	-143.65 -143.47 -143.30 -143.12 -142.95	4,635.02 4,735.02 4,835.02 4,935.02 5,035.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
15,600.00 15,700.00 15,800.00 15,900.00 16,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-5,135.28 -5,235.28 -5,335.28 -5,435.28 -5,535.28	-142.77 -142.59 -142.42 -142.24 -142.07	5,135.02 5,235.02 5,335.02 5,435.02 5,535.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
16,100.00 16,200.00 16,300.00 16,400.00 16,500.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-5,635.28 -5,735.28 -5,835.28 -5,935.28 -6,035.28	-141.89 -141.72 -141.54 -141.37 -141.19	5,635.02 5,735.02 5,835.02 5,935.02 6,035.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00

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## Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 506H
Company:	XTO Energy	TVD Reference:	GL @ 3230.00usft (TBD)
Project:	EDDY COUNTY, NM (NAD-27)	MD Reference:	GL @ 3230.00usft (TBD)
Site:	POKER LAKE UNIT 21 BD	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,600.00 16,700.00 16,800.00 16,900.00 17,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-6,135.28 -6,235.28 -6,335.28 -6,435.28 -6,535.28	-141.01 -140.84 -140.66 -140.49 -140.31	6,135.02 6,235.02 6,335.02 6,435.02 6,535.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
17,100.00 17,200.00 17,300.00 17,400.00 17,500.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00 10.077.00	-6,635.28 -6,735.28 -6,835.28 -6,935.28 -7,035.28	-140.14 -139.96 -139.78 -139.61 -139.43	6,635.02 6,735.02 6,835.02 6,935.02 7,035.02	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
17,600.00 17,700.00 17,800.00 17,900.00 18,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-7,135.28 -7,235.28 -7,335.28 -7,435.28 -7,535.28	-139.26 -139.08 -138.91 -138.73 -138.56	7,135.02 7,235.02 7,335.02 7,435.02 7,535.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
18,100.00 18,200.00 18,300.00 18,400.00 18,500.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-7,635.28 -7,735.28 -7,835.28 -7,935.28 -8,035.27	-138.38 -138.20 -138.03 -137.85 -137.68	7,635.02 7,735.02 7,835.02 7,935.02 8,035.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
18,600.00 18,700.00 18,800.00 18,900.00 19,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-8,135.27 -8,235.27 -8,335.27 -8,435.27 -8,435.27	-137.50 -137.33 -137.15 -136.97 -136.80	8,135.02 8,235.02 8,335.02 8,435.02 8,435.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
19,100.00 19,200.00 19,300.00 19,400.00 19,500.00	90.00 90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00 10.077.00	-8,635.27 -8,735.27 -8,835.27 -8,935.27 -9,035.27	-136.62 -136.45 -136.27 -136.10 -135.92	8,635.02 8,735.02 8,835.02 8,935.02 9.035.02	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
19,600.00 19,700.00 19,800.00 19,900.00 20,000.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-9,135.27 -9,235.27 -9,335.27 -9,435.27 -9,535.27	-135.74 -135.57 -135.39 -135.22 -135.04	9,135.02 9,235.02 9,335.02 9,435.02 9,535.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
20,100.00 20,200.00 20,300.00 20,400.00 20,500.00	90.00 90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00 10,077.00	-9,635.27 -9,735.27 -9,835.27 -9,935.27 -10,035.27	-134.87 -134.69 -134.52 -134.34 -134.16	9,635.02 9,735.02 9,835.02 9,935.02 10,035.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
20,600.00 20,700.00 20,800.00 20,879.41	90.00 90.00 90.00 90.00	179.90 179.90 179.90 179.90	10,077.00 10,077.00 10,077.00 10,077.00	-10,135.27 -10,235.27 -10,335.27 -10,414.68	-133.99 -133.81 -133.64 -133.50	10,135.02 10,235.02 10,335.02 10,414.43	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
<b>506H_LTP</b> 20,900.00 20.929.41	90.00 90.00	179.90 179.90	10,077.00	-10,435.27 -10,464.68	-133.46 -133.41	10,435.02 10,464.43	0.00	0.00	0.00
506H_BHL	-		.,	.,		-,			

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## Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	tabase:       EDM 5000.1.13 Single User Db         mpany:       XTO Energy         oject:       EDDY COUNTY, NM (NAD-27)         e:       POKER LAKE UNIT 21 BD         bil:       506H         bilbore:       OH         sign:       PERMIT				Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:			Well 506l GL @ 32 GL @ 32 Grid Minimum	H 30.00usft (TBD) 30.00usft (TBD) Curvature	
Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	East (us	ing ft)	Latitude	Longitude
506H_SHL - plan hits target - Point	0.00 center	0.00	0.00	0.00	0.00	403,263.12	638	,612.56	32.1078953	-103.8856653
		0.00	40 077 00	40 404 00	100.11	000 700 44		170 15	00 070 1000	

506H_BHL - plan hits target center - Point	0.00	0.00 10,077.00	-10,464.68	-133.41	392,798.44	638,479.15	32.0791298	-103.8862363
506H_FTP - plan hits target center - Point	0.00	0.00 10,077.00	34.36	-151.85	403,297.48	638,460.71	32.1079915	-103.8861553
506H_LTP - plan misses target cen	0.00 Iter by 0.2	0.00 10,077.00 6usft at 20879.41u	-10,414.68 sft MD (10077	-133.24 7.00 TVD, -10	392,848.44 0414.68 N, -133.	638,479.32 50 E)	32.0792672	-103.8862351

- Point

#### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lit	thology	Dip (°)	Dip Direction (°)
1,227.00	1,227.00	Rustler				
1,549.00	1,549.00	Salado				
3,562.00	3,557.00	Base of Salt				
3,743.65	3,738.00	Delaware				
4,693.04	4,684.00	Cherry Canyon				
6,243.58	6,229.00	Brushy Canyon				
7,294.33	7,276.00	Basal Brushy Canyon				
7,571.32	7,552.00	Bone Spring				
7,725.87	7,706.00	Avalon Upper				
8,141.35	8,120.00	Avalon Lower				
8,300.92	8,279.00	1st Bone Spring Lime				
8,514.69	8,492.00	1st Bone Spring Sand				
8,896.05	8,872.00	2nd Bone Spring Lime				
9,376.76	9,351.00	2nd Bone Spring Sand				
9,673.72	9,646.00	3rd Bone Spring Lime				
10,116.15	9,993.00	Harkey Sand				
10,189.19	10,027.00	3rd Bone Spring Shale				
10,430.35	10,077.00	Landing Point				





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FORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, SCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY UTHORIZED BY CACTUS WELLHEAD, LLC.

# CACTUS WELLHEAD L

20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-CFL-R-DBLO Wellhead With 11" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 9-5/8", 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers

		ALL DIMENSIO	
LC		XTO ENERGY IN DELAWARE BAS	C N Singer
	DRAWN	VJK	31MAR22
	APPRV		ed to
Casing Hangers	DRAWING N	D. <b>HBE000</b>	0479 <i>gelease</i>

#### Cement Variance Request

Intermediate Casing:

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6229') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, nother Echo-meter run will be performed for cement top verification.

XTO will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement inside the first intermediate casing. If cement reaches the desired height, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

Production Casing:

XTO requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.


Received by OCD: 3/17/2025 12:12:33 PM



State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

# NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

# <u>Section 1 – Plan Description</u> <u>Effective May 25, 2021</u>

I. Operator: \_\_\_\_\_XTO PERMIAN OPERATING LLC. \_\_\_\_OGRID: \_\_\_\_\_373075 \_\_\_\_\_Date: \_\_\_\_\_01\_/\_14\_/2025\_

**II. Type:**  $\square$  Original  $\square$  Amendment due to  $\square$  19.15.27.9.D(6)(a) NMAC  $\square$  19.15.27.9.D(6)(b) NMAC  $\square$  Other.

If Other, please describe:

or proposed to	be reco	mpleted I	rom a singi	e wen pac	i or connected	to a centra	al delivery poli	π.	
Well Name	API	ULST	Footages	Anticip	3 yr	Anticipa	3 yr	Anticipa	3 yr
		R		ated Oil	Anticipated	ted Gas	Anticipated	ted	Anticipated
				BBL/D	decline Oil	MCF/D	decline Gas	Water	decline
				-	BBL/D		MCF/D	BBL/D	Water
					DDL		MICI/D	DDL	BBL/D
DLU 01	TDD	21.250	100 EQI						DDL/D
PLU 21	IBD	21 255	180 FSL,	1 400	150	C 000	000	5 500	(50)
BRUSHY		30E	2039 FEL	1,400	150	6,000	900	5,500	650
DRAW 30/H	TRE	21.250	100 501						
PLU 21	TBD	21 258	180 FSL,	4 400	1.50	6.000			<b>670</b>
BRUSHY		30E	2009 FEL	1,400	150	6,000	900	5,500	650
DRAW 308H									
PLU 21	TBD	21 258	180 FSL,						
BRUSHY		30E	1979 FEL	1,800	200	7,500	1,200	7,000	800
DRAW 309H									
PLU 21	TBD	21 25S	180 FSL,						
BRUSHY		30E	1949 FEL	1,800	200	7,500	1,200	7,000	800
DRAW 310H									
PLU 21	TBD	28 25S	136 FNL,						
BRUSHY		30E	2162	1,500	150	2,500	700	3,000	350
DRAW 501H			FWL						
PLU 21	TBD	28 25S	136 FNL,						
BRUSHY		30E	2192	1,500	150	2,500	700	3,000	350
DRAW 502H			FWL						
PLU 21	TBD	28 25S	136 FNL,						
BRUSHY		30E	2222	1,500	150	2,500	700	3,000	350
DRAW 503H			FWL	-					
PLU 21	TBD	28 25S	136 FNL,						
BRUSHY		30E	2252	1,500	150	2,500	700	3,000	350
DRAW 504H			FWL	-					
PLU 21	TBD	28 25S	136 FNL,						
BRUSHY		30E	2652	1,900	200	3,250	900	3,750	400
DRAW 505H			FWL	-		,		-	

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

PLU 21 BRUSHY	TBD	28 25S 30E	136 FNL, 2667 FEL	1 900	200	3 250	900	3 750	400
DRAW 506H		501	2007 I EE	1,900	200	3,230		5,750	100
PLU 21	TBD	28 25S	136 FNL,						
BRUSHY		30E	2637 FEL	1,900	200	3,250	900	3,750	400
DRAW 507H									
PLU 21	TBD	28 25S	136 FNL,						
BRUSHY		30E	2607 FEL	1,900	200	3,250	900	3,750	400
DRAW 508H									

|--|

PLU 21 BD East and West

[See

19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
PLU 21 BRUSHY DRAW 307H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 308H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 309H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 310H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 501H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 502H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 503H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 504H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 505H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 506H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 507H	TBD	6/2025	TBD	TBD	TBD	TBD
PLU 21 BRUSHY DRAW 508H	TBD	6/2025	TBD	TBD	TBD	TBD

**VI. Separation Equipment:**  $\boxtimes$  Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:**  $\boxtimes$  Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:**  $\boxtimes$  Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

# Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

 $\boxtimes$  Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

#### X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.**  $\Box$  Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system  $\Box$  will  $\Box$  will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator  $\Box$  does  $\Box$  does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

□ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:**  $\Box$  Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

# Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

 $\boxtimes$  Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

 $\Box$  Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

#### If Operator checks this box, Operator will select one of the following:

**Well Shut-In.**  $\Box$  Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.**  $\Box$  Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

# Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

- Thank Kugun
Printed Name: VISHAL RAJAN
Title: REGULATORY ANALYST
E-mail Address: vishal.rajan@exxonmobil.com
Date: 01/14/2025
Phone: 346-225-9159
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Title: Approval Date:
Title:         Approval Date:         Conditions of Approval:
Title:         Approval Date:         Conditions of Approval:
Title:         Approval Date:         Conditions of Approval:
Title: Approval Date: Conditions of Approval:

# Poker Lake Unit – Decline Curves









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## VI. Separation Equipment:

XTO Permian Operating LLC. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. XTO utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.

## VII. Operational Practices

XTO Permian Operating LLC will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

• During drilling operations, XTO will utilize flares to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, XTO will employ best management practices to minimize or reduce venting to the extent possible.

• During completions operations, XTO will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically infeasible, flares will be used to control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, XTO Permian Operating LLCwill turn operations to onsite separation vessels and flow to the gathering pipeline.

• During production operations, XTO Permian Operating LLC will take every practical effort to minimize waste of natural gas through venting and flaring by:

- Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
- Utilizing a closed-loop capture system to collect, and route produced gas to sales line via low pressure compression, or to a flare/combustor
- Flaring in lieu of venting, where technically feasible
- Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
- Employ the use of automatic tank gauging to minimize storage tank venting during loading events
- Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
- Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications

• Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible.

### VIII. Best Management Practices during Maintenance

XTO Permian Operating LLC. will utilize best management practices to minimize venting during active and planned maintenance activities. XTO is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high-pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. XTO will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.

**Subject:** Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE)

XTO Energy requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

#### Background

Onshore Oil and Gas Order CFR Title 43 Part 3170, Drilling Operations, Sections III.A.2.i.iv.B states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. CFR Title 43 Part 3170 states, "Some situation may exist either on a well-by- well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this order. This situation can be resolved by requesting a variance...". XTO Energy feels the break testing the BOPE is such a situation. Therefore, as per CFR Title 43 Part 3170, XTO Energy submits this request for the variance.

#### **Supporting Documentation**

CFR Title 43 Part 3170 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time there have been significant changes in drilling technology. BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since CFR Title 43 Part 3170 was originally released. The XTO Energy drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. CFR Title 43 Part 3170recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component." See Table C.4 below for reference.

	Pressure Test_1 ow	Pressure Test-	-High Pressure <sup>ac</sup>		
Component to be Pressure Tested	Pressure <sup>ac</sup> psig (MPa)	Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket		
Annular preventer <sup>b</sup>	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.		
Fixed pipe, variable bore, blind, and BSR preventers <sup>bd</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP		
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP		
Choke manifold—upstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP		
Choke manifold—downstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41) RWP of valve(s), line(s), or MASP for the well program, whichever is tower				
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program			
<ul> <li><sup>a</sup> Pressure test evaluation periods s No visible leaks.</li> <li><sup>b</sup> Annular(s) and VBR(s) shall be pre- <sup>c</sup> For pad drilling operations, moving pressure-controlling connections</li> <li><sup>c</sup> For surface offshore operations, the vented during the initial test. For</li> </ul>	hall be a minimum of five minutes. during the evaluation period. The p issure tested on the largest and sm from one wellhead to another within when the integrity of a pressure se e ram BOPs shall be pressure tes land operations, the ram BOPs sha	vressure shall not decrease below the allest OD drill pipe to be used in well n the 21 days, pressure testing is req al is broken. ted with the ram locks engaged and all be pressure tested with the ram lo	intended test pressure. program. uired for pressure-containing an the closing and locking pressur cks engaged and the closing an		

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 Oand often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

## **Procedures**

- XTO Energy will use this document for our break testing plan for New Mexico Delaware basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
- 2. XTO Energy will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
  - a. A full BOP test will be conducted on the first well on the pad.
  - b. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
    - i. Our Lower WC targets set the intermediate casing shoe no deeper than the Wolfcamp B.
    - ii. Our Upper WC targets set the intermediate casing shoe shallower than the Wolfcamp B.
  - c. A Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
  - d. A full BOP test will be required prior to drilling any production hole.
- 3. After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
  - a. Between the HCV valve and choke line connection
  - b. Between the BOP quick connect and the wellhead
- 4. The BOP is then lifted and removed from the wellhead by a hydraulic system.
- 5. After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
- 6. The connections mentioned in 3a and 3b will then be reconnected.
- 7. Install test plug into the wellhead using test joint or drill pipe.
- 8. A shell test is performed against the upper pipe rams testing the two breaks.
- 9. The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
- 10. Function test will be performed on the following components: lower pipe rams, blind rams, and annular.

- 11. For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
- 12. A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.



*Note: Picture below highlights BOP components that will be tested during batch operations* 

#### **Summary**

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, we will request permission to ONLY retest broken pressure seals if the following conditions are met:

1. After a full BOP test is conducted on the first well on the pad.

2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.

3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.

4. Full BOP test will be required prior to drilling the production hole.



## **XTO Permian Operating, LLC Offline Cementing Variance Request**

XTO requests the option to cement the surface and intermediate casing strings offline as a prudent batch drilling efficiency of acreage development.

# 1. Cement Program

No changes to the cement program will take place for offline cementing.

# 2. Offline Cementing Procedure

The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
- 2. Land casing with mandrel
- 3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
- 4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi.
- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
  - a. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



Annular packoff with both external and internal seals



**XTO Permian Operating, LLC Offline Cementing Variance Request** 

Wellhead diagram during skidding operations

- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nippling up for further remediation.
  - a. Well Control Plan
    - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
    - ii. Rig pumps or a 3<sup>rd</sup> party pump will be tied into the upper casing valve to pump down the casing ID
    - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
    - v. Well will be confirmed static
    - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
- 8. Install offline cement tool
- 9. Rig up cement equipment





Wellhead diagram during offline cementing operations

- 10. Circulate bottoms up with cement truck
  - a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
  - b. Max anticipated time before circulating with cement truck is 6 hrs
- 11. Perform cement job taking returns from the annulus wellhead valve
- 12. Confirm well is static and floats are holding after cement job
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

**Description of Operations:** 

- 1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
  - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
  - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
- 2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
- 3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
  - a. A means for intervention will be maintained while the drilling rig is not over the well.
- 4. Spudder rig operations are expected to take 2-3 days per well on the pad.
- 5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
  - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
  - b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
- 7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
- 8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.



GATES ENGINEERING & SERVICES NORTH AMERICA 7603 Prairie Oak Dr. Houston, TX. 77086 PHONE: +1 (281) 602-4100 FAX: +1 (281) 602-4147 EMAIL: gesna.quality@gates.com WEB: www.gates.com/ollandgas

NEW CHOKE HOSE INSTALED 02-10-2024

# **CERTIFICATE OF CONFORMANCE**

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

CUSTOMER: CUSTOMER P.O.#: CUSTOMER P/N:	NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA 15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531) IMR RETEST SN 74621 ASSET #66-1531
PART DESCRIPTION:	RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FLANGES
SALES ORDER #: QUANTITY: SERIAL #:	529480 1 74621 H3-012524-1
SIGNATURE	FOISWOS
TITLE	QUALITY ASSURANCE
DATE:	1/25/2024

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1/25/2024 11:48:06 AM

H3-15/16

# **TEST REPORT**

CUSTOMER			TEST OBJECT		
Company:	Nabors Ind	ustries Inc.	Serial number: H3-012		24-1
			Lot number:		
Production description:	74621/66-1	.531	Description:	74621/6	6-1531
Sales order #:	529480				
Customer reference:	FG1213		Hose ID:	3" 16C C	к
			Part number:		
TEST INFORMATION					
Test procedure:	GTS-04-053		Fitting 1:	3.0 x 4-1	/16 10K
Test pressure:	15000.00	psi	Part number:		
Test pressure hold:	3600.00	sec	Description:		
Work pressure:	10000.00	psi			
Work pressure hold:	900.00	sec	Fitting 2:	3.0 x 4-1	/16 10K
Length difference:	0.00	%	Part number:		
Length difference:	0.00	inch	Description:		
Visual check:			Length:	45	feet
Pressure test result:	PASS				
Length measurement result	t:				

Test operator:

Travis



Released to Imaging: 4/9/2025 3:42:04 PM



# **TEST REPORT**

H3-15/16 1/25/2024 11:48:06 AM

# **GAUGE TRACEABILITY**

Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110D3PHO	2023-06-06	2024-06-06
S-25-A-W	110IQWDG	2023-05-16	2024-05-16

Comment

	Fil	D.I.C	 A19594 4 - J	£
<b>Released</b> to	Imaging: 4/2	9/2025 3:42:04 PM		





# AFMSS

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

APD ID: 10400095872

**Operator Name: XTO PERMIAN OPERATING LLC** Well Name: POKER LAKE UNIT 21 BD

# **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

PLU\_21\_BD\_506H\_Access\_Road\_Map\_20250131022137.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

PLU\_21\_BD\_ACCESS\_ROADS\_20250131022233.pdf

New road type: RESOURCE

Length: 2372

Width (ft.): 30

Max slope (%): 2

Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? N

Feet

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route. New road access plan or profile prepared? N

New road access plan

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

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## Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: 6" Rolled and Compacted Native Caliche

Access onsite topsoil source depth: 6

## Offsite topsoil source description:

**Onsite topsoil removal process:** The topsoil that was stripped will be spread along the edge of the road and within the ditch.

Access other construction information: Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.

Access miscellaneous information: The Poker Lake Unit 21 Brushy Draw area is accessed by existing U.S. Hwy 285 and Longhorn Rd (paved) approximately 2.4 miles. Take slight left and continue on Longhorn Road (paved) for approximately 1.8 miles. Turn left (northeast) onto Pipeline Road #1 (gravel) for approximately 6.9 miles. Turn right (southeast) onto Rock Dove Road (gravel) for approximately 1.3 miles. Locations are to the Southwest. Transportation Plan identifying existing roads that will be used to access the project area is included from Franks Surveying marked as, Vicinity Map. There are no existing access roads to the proposed Poker Lake Unit 21 Brushy Draw well locations. All equipment and vehicles will be confined to the routes shown on the Vicinity Map as provided by Franks Surveying. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed. The project is located approximately 12.5 miles to the town of Malaga.

Number of access turnouts:

Access turnout map:

**Drainage Control** 

## New road drainage crossing: LOW WATER

**Drainage Control comments:** The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

**Road Drainage Control Structures (DCS) description:** The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route.

# Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

# **Section 3 - Location of Existing Wells**

Existing Wells Map? YES

## Attach Well map:

PLU\_21\_BD\_1Mile\_20231031074356.pdf

Operator Name: XTO PERMIAN OPERATING LLC Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

# Section 4 - Location of Existing and/or Proposed Production Facilities

### Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production Facilities. No additional facilities are required for the Poker Lake Unit 21 BD wells from the original EA. Original EA was approved in 2018 with facility information. No additional surface distribution is required or anticipated B. Flowlines. In the event the wells are found productive, 4 composite flexpipe or steel flowlines with a maximum safety pressure rating of 750psi (operating pressure: 125psi) will be laid on the surface within proposed lease road corridors from the proposed wells to the PLU 21 BD East CTB and the PLU 21 BD West CTB where the oil, gas, and water will be metered and appropriately separated. High pressure gas lines will be buried beneath the surface flowlines per well pad within the proposed lease road corridors for gas lift, fuel gas, and water. Oil will be hauled from the location by truck following existing and proposed lease roads. The distance of proposed flowlines per well will be approximately 2,738.58 ft or .52 of a mile or less per well based on the location of the well pad in conjunction with the facility location. All flowlines will follow proposed lease road corridors. A plat of the proposed flowline route for the lease is attached. C. Gas Pipeline. No additional pipelines are required for the Poker Lake Unit 21 BD wells from the original EA. Original EA was approved in 2018 with MSO tie-in information. No additional surface distribution is required or anticipated D. Disposal Facilities. Produced water will be hauled from location to a commercial disposal facility as needed. E. Flare. No additional flares are required for the Poker Lake Unit 21 BD wells from the original EA. Original EA was approved in 2018 with Flare information. No additional surface distribution is required or anticipated. F. Aboveground Structures. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as shale green that reduce the visual impacts of the built environment. G. Containment Berms. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1.5 times the capacity of the largest tank and away from cut or fill areas. H.Electrical. All electrical poles and lines will be placed within existing and proposed lease roads corridors. All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 673.65 ft or .13 of a mile in length of electrical will be run from the anticipated tie-in point with a request for 30 ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is attached.

## **Production Facilities map:**

PLU\_21\_BD\_ELECTRIC\_LINE\_20250131020128.pdf PLU\_21\_BD\_FLOW\_LINE\_20250131020129.pdf

# Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type:Fresh Water; Section 6, T25S-R29E, Eddy County,New Mexico.DUST CONTROL

SURFACE CASING

INTERMEDIATE/PRODUCTION CASING STIMULATION

#### Source latitude:

Source datum:

Source longitude:

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

DUST CONTROL SURFACE CASING INTERMEDIATE/PRODUCTION CASING STIMULATION Water source permit type: PRIVATE CONTRACT Water source transport method: PIPELINE Source land ownership: COMMERCIAL Source transportation land ownership: FEDERAL Water source volume (barrels): 2000000 Source volume (acre-feet): 257.78619266 Source volume (gal): 84000000 Water source type: OTHER Describe type: Fresh Water; Section 27, T25S-R30E, Eddy County, New Mexico. Water source use type: DUST CONTROL SURFACE CASING INTERMEDIATE/PRODUCTION CASING STIMULATION Source latitude: Source longitude: Source datum: Water source permit type: PRIVATE CONTRACT Water source transport method: PIPELINE Source land ownership: COMMERCIAL Source transportation land ownership: FEDERAL Water source volume (barrels): 2000000 Source volume (acre-feet): 257.78619266

Source volume (gal): 8400000

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

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### Water source and transportation

PLU\_21\_BD\_506H\_Vicinity\_Map\_20250131022442.pdf

Water source comments: The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3rd party vendor and hauled to the anticipated pit in Section 7 by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location. Water for drilling, completion and dust control will be purchased from the following company: Texas Pacific Water Resources Water for drilling, completion and dust control will be supplied by Texas Pacific Water Resources for sale to XTO PERMIAN OPERATING LLC., L.P. from Section 27, T25S-R30E, Eddy County, New Mexico. In the event that Texas Pacific Water Resources does not have the appropriate water for XTO PERMIAN OPERATING LLC. at time of drilling and completion, then XTO PERMIAN OPERATING LLC. water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, New Mexico. Anticipated water usage for drilling includes an estimated 35,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation. Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 300,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

#### New water well? N

New Water Well II	nfo	
Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est. depth to top of aquifer(ft):	Est thickness o	of aquifer:
Aquifer comments:		
Aquifer documentation:		
Well depth (ft):	Well casing type:	
Well casing outside diameter (in.):	Well casing insid	e diameter (in.):
New water well casing?	Used casing sour	rce:
Drilling method:	Drill material:	
Grout material:	Grout depth:	
Casing length (ft.):	Casing top depth	(ft.):
Well Production type:	Completion Meth	od:
Water well additional information:		
State appropriation permit:		
Additional information attachment:		

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

# **Section 6 - Construction Materials**

Using any construction materials: YES

**Construction Materials description:** Pit 1: Federal Caliche Pit, Section 17-T25S-R30E NESW Pit 2: Federal Caliche Pit, Section 34-T25S-R29E SWSW **Construction Materials source location** 

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: FLUID

Amount of waste: 500 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel mud boxes

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

FACILITY **Disposal type description:** 

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240

Waste type: DRILLING

Waste content description: CUTTINGS

Amount of waste: 2100 pounds

Waste disposal frequency : One Time Only

**Safe containment description:** The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.

#### Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIALDisposal location ownership: COMMERCIALFACILITYDisposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240

## Waste type: SEWAGE

**Waste content description:** Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

**Safe containment description:** Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

## Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL FACILITY

Disposal type description:

Disposal location description: A licensed 3rd party contractor to haul and dispose of human waste.

## Waste type: GARBAGE

**Waste content description:** All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approve sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.

Amount of waste: 250 pounds

## Waste disposal frequency : Weekly

**Safe containment description:** All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approve sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.

#### Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL FACILITY

Disposal type description:

**Disposal location description:** A licensed 3rd party contractor to haul and dispose of human waste.

**Reserve Pit** 

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

**Reserve pit liner** 

Reserve pit liner specifications and installation description

**Cuttings Area** 

Cuttings Area being used? NO

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

## Are you storing cuttings on location? Y

**Description of cuttings location** Cuttings. The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site. Drilling Fluids. These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility. Produced Fluids. Water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility.

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

**Section 8 - Ancillary** 

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

# **Section 9 - Well Site**

Well Site Layout Diagram:

PLU\_21\_BD\_506H\_Well\_Site\_Plan\_20250131022529.pdf PLU\_21\_BD\_506H\_RL\_20250131022530.pdf **Comments:** Multi-well pad.

# **Section 10 - Plans for Surface Reclamation**

Type of disturbance: New Surface DisturbanceMultiple Well Pad Name: POKER LAKE UNIT 21 BD

Multiple Well Pad Number: E

#### Recontouring

PLU\_21\_BD\_PAD\_E\_INTERIM\_RECLAMATION\_FINAL\_20250131015706.pdf

PLU\_21\_BD\_PAD\_C\_INTERIM\_RECLAMATION\_FINAL\_20250131015707.pdf

**Drainage/Erosion control construction:** Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches

**Drainage/Erosion control reclamation:** Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

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Operator Name: XTO PERMIAN OPER	RATING LLC	
Well Name: POKER LAKE UNIT 21 BE	Well Number: 506	۱
		)
Well pad proposed disturbance (acres): 20.886	Well pad interim reclamation (acres): 6.034	Well pad long term disturbance (acres): 14.852
Road proposed disturbance (acres): 1.52	Road interim reclamation (acres): 0	Road long term disturbance (acres): 1.52
Powerline proposed disturbance (acres): 0.46	<b>Powerline interim reclamation (acres):</b> 0.46	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 3.7	<b>Pipeline interim reclamation (acres):</b> 3.7	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): (	O Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 26.566	Total interim reclamation: 10.193999999999999	Total long term disturbance: 16.372

#### **Disturbance Comments:**

**Reconstruction method:** The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

**Topsoil redistribution:** The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

**Soil treatment:** A self-sustaining, vigorous, diverse, native (or otherwise approved) plan community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

**Existing Vegetation at the well pad:** Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

#### Existing Vegetation at the well pad

**Existing Vegetation Community at the road:** Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

#### **Existing Vegetation Community at the road**

**Existing Vegetation Community at the pipeline:** Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

#### Existing Vegetation Community at the pipeline

**Existing Vegetation Community at other disturbances:** Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

## Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

**Seed Table** 

	Seed Summary		Total pounds/Acre:
	Seed Type	Pounds/Acre	
ed	reclamation		
	Operator Co	ontact/Responsible	Official

First Name: Robert

S

Phone: (406)478-3617

Email: robert.e.bartels@exxonmobil.com

**Seedbed prep:** Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.

Last Name: Bartels

**Seed BMP:** If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

**Seed method:** Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used. If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil. **Existing invasive species?** N

## Existing invasive species treatment description:

Existing invasive species treatment

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

**Weed treatment plan description:** Weed control for all phases will be through the use of approved pesticides and herbicides according to applicable State, Federal and local laws. **Weed treatment plan** 

**Monitoring plan description:** Monitoring of invasive and noxious weeds will be visual and as-needed. If it is determined additional methods are required to monitor invasive and noxious weeds, appropriate BLM authorities will be contacted with a plan of action for approval prior to implementation. **Monitoring plan** 

Success standards: 100% compliance with applicable regulations.

**Pit closure description:** There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17. **Pit closure attachment:** 

# Section 11 - Surface Ownership

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

BOR Local Office:

**COE Local Office:** 

**DOD Local Office:** 

NPS Local Office:

State Local Office:

Military Local Office:

**USFWS Local Office:** 

Other Local Office:

**USFS Region:** 

USFS Forest/Grassland:

**USFS** Ranger District:

Disturbance type: NEW ACCESS ROAD Describe: Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: BIA Local Office:

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

BOR	Local	Office:
	Looui	011100.

**COE Local Office:** 

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

**USFWS Local Office:** 

**Other Local Office:** 

**USFS Region:** 

USFS Forest/Grassland:

**USFS** Ranger District:

Disturbance type: OTHER Describe: FLOWLINES Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: USFWS Local Office: USFS Region: USFS Forest/Grassland:

**USFS Ranger District:** 

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Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

Disturbance type: TRANSMISSION LINE **Describe:** Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: **BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office:** Military Local Office: **USFWS Local Office: Other Local Office: USFS Region: USFS Forest/Grassland: USFS Ranger District:** 

Disturbance type: WELL PAD	
Describe:	
Surface Owner: BUREAU OF LAND MANAGEMENT	
Other surface owner description:	
BIA Local Office:	
BOR Local Office:	
COE Local Office:	
DOD Local Office:	
NPS Local Office:	
State Local Office:	
Military Local Office:	
USFWS Local Office:	
Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:
### **Operator Name: XTO PERMIAN OPERATING LLC**

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

## Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

COE Local Office:

**DOD Local Office:** 

NPS Local Office:

State Local Office:

Military Local Office:

**USFWS Local Office:** 

Other Local Office:

**USFS Region:** 

USFS Forest/Grassland:

#### **USFS** Ranger District:

Section 12 - Other

Right of Way needed? Y

### Use APD as ROW? Y

**ROW Type(s):** 281001 ROW - ROADS,285003 ROW – POWER TRANS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,289001 ROW- O&G Well Pad,FLPMA (Powerline)

ROW

SUPO Additional Information: SUPO written for all wells in section/project area.

Use a previously conducted onsite? Y

**Previous Onsite information:** The XTO Permian Operating, LLC. representatives and BLM NRS were on location for onsite on 10/05/2022.

## Other SUPO

POKER\_LAKE\_UNIT\_21\_BD\_WELL\_LIST\_10\_11\_2023\_20250110074647.pdf PLU\_21\_BD\_SUPO\_20250131015557.pdf Received by OCD: 3/17/2025 12:12:33 PM





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#### POKER LAKE UNIT 21 BD PROPOSED ACCESS ROADS DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 1,450.88 FEET, 87.93 RODS, OR 0.27 OF A MILE IN LENGTH CROSSING SECTION 21, TOWNSHIP 25 SOUTH, RANGE 30 EAST N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 0.89 OF AN ACRE AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

#### PRIVATE LAND: LINE SEGMENTS L1 - PART OF L7

SE/4 SW/4 SECTION 21 = 680.45 FEET = 41.24 RODS = 0.47 OF AN ACRE SW/4 SE/4 SECTION 21 = 770.43 FEET = 46.69 RODS = 0.42 OF AN ACRE

#### POKER LAKE UNIT 21 BD PROPOSED ACCESS ROADS DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 921.15 FEET, 55.83 RODS, OR 0.17 OF A MILE IN LENGTH CROSSING SECTION 28, TOWNSHIP 25 SOUTH, RANGE 30 EAST N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 0.63 OF AN ACRE AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

#### BLM LAND: LINE SEGMENT PART OF L7 - L8

NW/4 NE/4 SECTION 28 = 921.15 FEET = 55.83 RODS = 0.63 OF AN ACRE

GENERAL NOTES

1. BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983.

LINE TABLE "A"

LINE TABLE "B"

LINE TABLE "C"

LINE TABLE "D"

TOTAL LENGTH = 2.372.03 FEET

OR 143.76 RODS

S 00°39'20" E

N 90'00'00" E

S 89°23'39" W

S 00°34'21" E

169.96'

990.49'

80.00'

79.88'

423.48'

628.22'

L1 S 00°40'08" E

L4 S 00°36'05" E

L2

L5

L6

2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

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	DRAWN BY:	RE/CF/LM
SURVEYORS+ENGINEERS	CHECKED BY:	GG
	FIELD CREW:	RD
2821 West 7th Street, Suite 200	PROJECT NO:	2017040548
Fort worth, 1X /010/ Ph. 817 340 9800 - Fax, 979 732 5271	SCALE:	1" = 300'
TBPE Firm 17957   TBPLS Firm 10193887	SHEET:	2 OF 2
www.fscinc.net	REVISION:	R1

PLAT OF: PROPOSED CENTERLINE OF ACCESS ROADS FOR: XTO PERMIAN OPERATING, LLC. POKER LAKE UNIT 21 BD SITUATED IN SECTIONS 21 AND 28, TOWNSHIP 25 SOUTH, RANGE 30 EAST, Released to Imaging: 4/9/2025 3:42:04 PM

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NEW MEXICO PRINCIPAL MERIDIAN, EDDY COUNTY, NEW MEXICO

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# 1 Mile Radius Map





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#### POKER LAKE UNIT 21 BD PROPOSED BURIED AND SURFACE FLOW LINE DESCRIPTION:

SURVEY OF A STRIP OF LAND 60 FEET WIDE AND 2,738.58 FEET, 165.97 RODS, OR 0.52 OF A MILE IN LENGTH CROSSING SECTION 21, TOWNSHIP 25 SOUTH, RANGE 30 EAST N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 30.0 FEET RIGHT AND 30.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 3.70 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

#### SE/4 SW/4 SECTION 21 = 2,304.03 FEET = 139.64 RODS = 3.13 ACRES SW/4 SE/4 SECTION 21 = 434.55 FEET = 26.33 RODS = 0.57 OF AN ACRE



LINE TABLE "B"						
L5	S	00°36'04" E	34.72'			

TOTAL LENGTH = 2,738.58 FEET OR 165.97 RODS



#### GENERAL NOTES

- BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.
- 2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

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	DRAWN BY:
SURVEYORS+ENGINEERS	CHECKED BY:
	FIELD CREW:
2821 West 7th Street, Suite 200	PROJECT NO:
Fort Worth, 1A /010/ Ph. 817 340 9800 - Fax: 979 732 5271	SCALE:
TBPE Firm 17957   TBPLS Firm 10193887	SHEET:
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m T26}_{
m 6}$ ~ T25 $\sim$ g R29ER29E R29E R29ER  $^{24}$ pipet with the ----T25<sup>35</sup> T24 T25T26MAP N 0y HSUBAAT RD Ł Ľ ဗ က MCDONALD VICINITY  $^{21}$ WHITEHORN ω  $R29E_5$ RD ŝ ω **R29E** 0× T24 R29E R29ECATFISH  $\sim$ T25T26T25 6  $\sim$ RANCH RD æ R28E R28ERD 25 R28ER28E11 12 LONGHORN  $\frac{12}{12}$ ----Ч T25T25 $^{\rm T26}_{2}$ <sup>35</sup> T24 P COOKSEY HWY PECOS PECOS HWY က ဗ A CH7 LAWING .  $^{21}$ NHITES ω **Released to Imaging: 4/9/2025 3:42:04 PM** 

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POKER LAKE UNIT 21 BD #506H LOCATED 2,667 FEET FROM THE EAST LINE AND 136 FEET FROM THE SOUTH LINE OF SECTION 28, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

PROJECT NO:

**+ENGINEER8** reet, Suite 200

BURVEYOR8 2821 West 7th St

Fort Worth, TX 76107 Ph: 817.349.9800 - Fax: 979.732.5271 TBPE Firm 17957 | TBPLS Firm 10193887

10,000'

5,000'

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= 10,000FEET

fscinc.net

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#### **Permitted APDs**

POKER LAKE UNIT 21 BD #307H: PAD C – B1 Surface Hole Location: 2039' FEL & 180' FSL, Section 21, T. 25 S. R. 30 E. Bottom Hole Location: 1525' FEL & 2600' FNL, Section 4, T. 26 S. R. 30 E.

**POKER LAKE UNIT 21 BD #308H:** PAD C – B2 **Surface Hole Location:** 2009' FEL & 180' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** 1125' FEL & 2600' FNL, Section 4, T. 26 S. R. 30 E.

**POKER LAKE UNIT 21 BD #309H:** PAD C – B3 **Surface Hole Location:** 1979' FEL & 180' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** 725' FEL & 2600' FNL, Section 4, T. 26 S. R. 30 E.

**POKER LAKE UNIT 21 BD #310H:** PAD C – B4 **Surface Hole Location:** 1949' FEL & 180' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** 330' FEL & 2600' FNL, Section 4, T. 26 S. R. 30 E.

**POKER LAKE UNIT 21 BD #501H:** PAD E – A1 **Surface Hole Location:** 2162' FWL & 136' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** 330' FWL & 50' FSL, Section 33, T. 25 S. R. 30 E.

**POKER LAKE UNIT 21 BD #502H:** PAD E – A2 **Surface Hole Location:** 2192' FWL & 136' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** 770' FWL & 50' FSL, Section 33, T. 25 S. R. 30 E.

POKER LAKE UNIT 21 BD #503H: PAD E – A3 Surface Hole Location: 2222' FWL & 136' FNL, Section 28, T. 25 S. R. 30 E. Bottom Hole Location: 1210' FWL & 50' FSL, Section 33, T. 25 S. R. 30 E.

**POKER LAKE UNIT 21 BD #504H:** PAD E – A4 **Surface Hole Location:** 2252' FWL & 136' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** 1650' FWL & 50' FSL, Section 33, T. 25 S. R. 30 E.

**POKER LAKE UNIT 21 BD #505H:** PAD E – A5 **Surface Hole Location:** 2652' FWL & 136' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** 2090' FWL & 50' FSL, Section 33, T. 25 S. R. 30 E.

**POKER LAKE UNIT 21 BD #506H:** PAD E – A6 **Surface Hole Location:** 2667' FEL & 136' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** 2530' FWL & 50' FSL, Section 33, T. 25 S. R. 30 E.

**POKER LAKE UNIT 21 BD #507H:** PAD E – A7 **Surface Hole Location:** 2637' FEL & 136' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** 2325' FEL & 2600' FNL, Section 4, T. 26 S. R. 30 E.

POKER LAKE UNIT 21 BD #508H: PAD E – A8 Surface Hole Location: 2607' FEL & 136' FNL, Section 28, T. 25 S. R. 30 E. Bottom Hole Location: 1925' FEL & 2600' FNL, Section 4, T. 26 S. R. 30 E.

#### POKER LAKE UNIT 21 BD

#### **Planned APDs**

**FUTURE WELL #1:** PAD C – B5 **Surface Hole Location:** 1919' FEL & 180' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #2:** PAD C – C1 **Surface Hole Location:** 2039' FEL & 55' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #3:** PAD C – C2 **Surface Hole Location:** 2009' FEL & 55' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #4:** PAD C – C3 **Surface Hole Location:** 1979' FEL & 55' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #5:** PAD C – C4 **Surface Hole Location:** 1949' FEL & 55' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #6:** PAD C – C5 **Surface Hole Location:** 1919' FEL & 55' FSL, Section 21, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

FUTURE WELL #7: PAD E – B1 Surface Hole Location: 2162' FWL & 231' FNL, Section 28, T. 25 S. R. 30 E. Bottom Hole Location: TBD

**FUTURE WELL #8:** PAD E – B2 **Surface Hole Location:** 2192' FWL & 231' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

FUTURE WELL #9: PAD E – B3 Surface Hole Location: 2222' FWL & 231' FNL, Section 28, T. 25 S. R. 30 E. Bottom Hole Location: TBD

**FUTURE WELL #10:** PAD E – B4 **Surface Hole Location:** 2252' FWL & 231' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

FUTURE WELL #11: PAD E – B5 Surface Hole Location: 2652' FWL & 231' FNL, Section 28, T. 25 S. R. 30 E. Bottom Hole Location: TBD

**FUTURE WELL #12:** PAD E – B6 **Surface Hole Location:** 2666' FEL & 231' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

#### POKER LAKE UNIT 21 BD

# FUTURE WELL #13: PAD E – B7

Surface Hole Location: 2636' FEL & 231' FNL, Section 28, T. 25 S. R. 30 E. Bottom Hole Location: TBD

FUTURE WELL #14: PAD E – B8 Surface Hole Location: 2606' FEL & 231' FNL, Section 28, T. 25 S. R. 30 E. Bottom Hole Location: TBD

**FUTURE WELL #15:** PAD E – C1 **Surface Hole Location:** 2162' FWL & 326' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #16:** PAD E – C2 **Surface Hole Location:** 2192' FWL & 326' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

FUTURE WELL #17: PAD E – C3 Surface Hole Location: 2222' FWL & 326' FNL, Section 28, T. 25 S. R. 30 E. Bottom Hole Location: TBD

**FUTURE WELL #18:** PAD E – C4 **Surface Hole Location:** 2252' FWL & 326' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #19:** PAD E – C5 **Surface Hole Location:** 2652' FWL & 326' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #20:** PAD E – C6 **Surface Hole Location:** 2665' FEL & 326' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #21:** PAD E – C7 **Surface Hole Location:** 2635' FEL & 326' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

**FUTURE WELL #22:** PAD E – C8 **Surface Hole Location:** 2605' FEL & 326' FNL, Section 28, T. 25 S. R. 30 E. **Bottom Hole Location:** TBD

•

POKER LAKE UNIT 21 BD

## Well Site Locations

The results of the Poker Lake Unit 21 Brushy Draw Development Program will develop economic quantities of oil and gas in the 'Poker Lake Unit 21 Brushy Draw' area with multiple primary formations targeted. Well locations are determined based on cross-section variations and details. Locations will be selected to minimize the likelihood of encountering faults and/or drilling hazards while still targeting suitably productive zones.

If drilling results in an unproductive well, the well will be plugged and abandoned as soon as practical after the conclusion of production testing. Productive wells may be shut-in temporarily for BLM authorization for production activities and facilities.

# Surface Use Plan

## 1. Existing Roads

- A. The Poker Lake Unit 21 Brushy Draw area is accessed by existing U.S. Hwy 285 and Longhorn Rd (paved) approximately 2.4 miles. Take slight left and continue on Longhorn Road (paved) for approximately 1.8 miles. Turn left (northeast) onto Pipeline Road #1 (gravel) for approximately 6.9 miles. Turn right (southeast) onto Rock Dove Road (gravel) for approximately 1.3 miles. Locations are to the Southwest. Transportation Plan identifying existing roads that will be used to access the project area is included from Frank's Surveying marked as, 'Vicinity Map.'
- B. There are no existing access roads to the proposed Poker Lake Unit 21 Brushy Draw well locations. All equipment and vehicles will be confined to the routes shown on the Vicinity Map as provided by Frank's Surveying. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.
- C. The project is located approximately 12.5 miles to the town of Malaga.

## 2. New or Upgraded Access Roads

- A. **New Roads**. There is a total of approximately 2,372.03 ft or 0.27 miles of proposed and staked access roads in the Poker Lake Unit 21 Brushy Draw lease area.
- B. **Well Pads**. The well pads selected for development will determine which existing roads will be upgraded and which new roads will be built. The lease flow diagram shows the location of proposed roads that will need to be constructed to access the well pads.
- C. Anticipated Traffic. After well completion, travel to each well site will included one lease operator truck and two oil trucks per day until the Central Tank Battery is completed. Upon completion of the Central Tank Battery, one lease operator truck will continue to travel to each well site to monitor the working order of the wells and to check well equipment for proper operation. Two oil trucks will continue to travel to travel to the Central Tank Battery only for oil hauling. Additional traffic will include one maintenance truck periodically throughout the year for pad upkeep and weed removal. Well service trips will include only the traffic necessary to work on the wells or provide chemical treatments periodically and as needed throughout the year.
- D. **Routing**. All equipment and vehicles will be confined to the travel routes laid out in the vicinity map provided by Frank's Surveying unless otherwise approved by the BLM and applied for by XTO PERMIAN OPERATING LLC..
- E. **Road Dimensions**. The maximum width of the driving surface of new roads will be 14 feet. The roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.



# **Level Ground Section**

- F. **Surface Material**. Surface material will be native caliche. The average grade of all roads will be approximately 3%.
- G. Fence Cuts: No.
- H. Fences: No.
- I. Cattle Guards: No.
- J. Turnouts: No.
- K. Culverts: No.
- L. Cuts and Fills: Not significant.
- M. **Topsoil**. Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.
- N. **Maintenance**. The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route.
- O. Drainage. The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

#### 3. Location of Existing Wells

A. See attached 1-mile radius well map.

#### 4. Ancillary Facilities

A. **Ancillary Facilities**. No off-pad ancillary facilities are planned during the exploration phase including, but not limited to: campsites, airstrips or staging areas.

### 5. Location of Proposed Production Facilities

- A. **Production Facilities**. No additional facilities are required for the Poker Lake Unit 21 BD wells from the original EA. Original EA was approved in 2018 with facility information. No additional surface distribution is required or anticipated
- B. Flowlines. In the event the wells are found productive, 4" composite flexpipe or steel flowlines with a maximum safety pressure rating of 750psi (operating pressure: 125psi) will be laid on the surface within proposed lease road corridors from the proposed wells to the PLU 21 BD East CTB and the PLU 21 BD West CTB where the oil, gas, and water will be metered and appropriately separated. High pressure gas lines will be buried beneath the surface flowlines per well pad within the proposed lease road corridors for gas lift, fuel gas, and water. Oil will be hauled from the location by truck following existing and proposed lease roads. The distance of proposed flowlines per well will be approximately 2,738.58 ft or .52 of a mile or less per well based on the location of the well pad in conjunction with the facility location. All flowlines will follow proposed lease road corridors. A plat of the proposed flowline route for the lease is attached.

- C. **Gas Pipeline**. No additional pipelines are required for the Poker Lake Unit 21 BD wells from the original EA. Original EA was approved in 2018 with MSO tie-in information. No additional surface distribution is required or anticipated
- D. **Disposal Facilities**. Produced water will be hauled from location to a commercial disposal facility as needed.
- E. **Flare**. No additional flares are required for the Poker Lake Unit 21 BD wells from the original EA. Original EA was approved in 2018 with Flare information. No additional surface distribution is required or anticipated.
- F. **Aboveground Structures**. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment.
- G. **Containment Berms**. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1.5 times the capacity of the largest tank and away from cut or fill areas.
- H. Electrical. All electrical poles and lines will be placed within existing and proposed lease roads corridors. All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 673.65 ft or .13 of a mile in length of electrical will be run from the anticipated tie-in point with a request for 30' ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is attached.

### 6. Location and Types of Water Supply

The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3<sup>rd</sup> party vendor and hauled to the anticipated pit in Section 7 by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location.

Water for drilling, completion and dust control will be purchased from the following company: Texas Pacific Water Resources

Water for drilling, completion and dust control will be supplied by Texas Pacific Water Resources for sale to XTO PERMIAN OPERATING LLC.. from Section 27, T25S-R30E, Eddy County, New Mexico. In the event that Texas Pacific Water Resources does not have the appropriate water for XTO PERMIAN OPERATING LLC. at time of drilling and completion, then XTO PERMIAN OPERATING LLC. water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, New Mexico.

Anticipated water usage for drilling includes an estimated 35,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation.

Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 300,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

#### 7. Construction Activities

- A. Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities.
- B. Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction materials will be removed from federal lands without prior approval from the appropriate surface management agency. All roads and well pads will be constructed of 6" rolled and compacted caliche.
- C. Anticipated Caliche Locations:
  - a. Pit 1: Federal Caliche Pit, Section 17-T25S-R30E NESW
  - b. Pit 2: Federal Caliche Pit, Section 34-T25S-R29E SWSW

#### 8. Methods for Handling Waste

- **Cuttings**. The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.
- **Drilling Fluids**. These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility.
- **Produced Fluids**. Water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. Oil produced during operations will be stored in tanks until sold.
- Sewage. Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- Garbage and Other Waste Materials. All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approve sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.
- **Debris**. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.
- Hazardous Materials.
  - i. All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location and not reused at another drilling location will be disposed of at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA).
  - ii. XTO PERMIAN OPERATING LLC. and its contractors will comply with all applicable Federal, State and local laws and regulations, existing or hereafter enacted promulgated, with regard to any hazardous material, as defined in this paragraph, that will be used, produced, transported or stored on the oil and gas lease. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the CERCLA of 1980, as amended, 42 U.S.C 9601 et seq., and its regulation. The definition of hazardous substances under CERLCA includes any 'hazardous waste" as defined in the RCRA of 1976, as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous material also includes any nuclear or nuclear by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.C.S. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101 (14) U.S.C. 9601 (14) nor does the term include natural gas.
  - iii. No hazardous substances or wastes will be stored on the location after completion of the well.

- iv. Chemicals brought to location will be on the Toxic Substance Control Act (TSCA) approved inventory list.
- v. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in Notice to Lessees (NTL) 3A will be reported to the BLM Carlsbad Field Office. Major events will be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days.

### 9. Well Site Layout

- A. **Rig Plat Diagrams**: There are 2 multi-well pads in the Poker Lake Unit 21 Brushy Draw lease anticipated. This will allow enough space for cuts and fills, topsoil storage, and storm water control. Interim reclamation of these pads is anticipated after the drilling and completion of all wells on the pad. Well site layouts for all pads are attached. From West to East:
  - 1. Pad 1 is a 4-well pad extended to be 330'x550'.
  - 2. Pad 2 is a 8-well pad expected to be 930'x880'.

**Closed-Loop System**: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.

- B. **V-Door Orientation**: These wells were staked with multiple v-door orientations. The following list is from West to East in accordance to the staked section and as agreed upon with Fernando Banos, BLM Natural Resource Specialist, present at on-site inspection.
  - 1. Pad 1 has a V-Door Orientation of West.
  - 2. Pad 2 has a V-Door Orientation of East.
- C. A 600' x 600' area has been staked and flagged around each well pad. A plat for the well has been attached.
- D. All equipment and vehicles will be confined to the approved disturbed areas of this APD (i.e., access road, well pad and topsoil storage areas).

#### **10.** Plans for Surface Reclamation:

XTO PERMIAN OPERATING LLC. requests a variance from interim reclamation until all drilling and completion activities have been finished on the pads as these are multi-well pads where drilling and completion will be consecutive with the other wells on the pad. Once activities are completed, XTO PERMIAN OPERATING LLC. will coordinate interim reclamation with the appropriate BLM personnel or use the following plan:

Non-Commercial Well (Not Productive), Interim & Final Reclamation:

*Definition:* Reclamation includes disturbed areas where the original landform and a natural vegetative community will be restored and it is anticipated the site will not be disturbed for future development.

#### **Reclamation Standards:**

The portions of the pad not essential to production facilities or space required for workover operations will be reclaimed and seeded as per BLM requirements for interim reclamation. (See Interim Reclamation plats attached).

All equipment and trash will be removed, and the surfacing material will be removed from the well pad and road and transported to the original caliche pit or used to maintain other roads. The location will then be ripped and seeded.

The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

A self-sustaining, vigorous, diverse, native (or otherwise approved) plan community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

The site will be free of State-or County-listed noxious weeds, oil field debris and equipment, and contaminated soil. Invasive and non-native weeds will be controlled.

#### Seeding:

- <u>Seedbed Preparation</u>: Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.
- If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- <u>Seed Application</u>. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used.
- If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.

#### 11. Surface Ownership

- A. Within the Poker Lake Unit 21 Brushy Draw project area: 100% of the surface is under the administrative jurisdiction of David Paschal, private land owner.
- B. The surface is multiple-use with the primary uses of the region for grazing and for the production of oil and gas.

#### 12. Other Information

#### Changes from Notice of Staking / Onsite

Surveying

- Well Sites. Well pad locations have been staked. Surveys of the proposed access roads and well pad locations have been completed by Frank Surveying, a registered professional land surveyor. Center stake surveys with access roads have been completed on State and Federal lands with Fernando Banos, Bureau of Land Management Natural Resource Specialist in attendance.
- **Cultural Resources Archaeology:** A Class III Cultural Resources Examination has been completed on all wells by Boone Archaeological Services and the results will be forwarded to the BLM Office. A copy of the report is also included as an attachment to this APD.
- **Dwellings and Structures**. There are no dwellings or structures within 2 miles of this location.

#### Soils and Vegetation

• Environmental Setting. Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the

West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

- **Traffic**. No truck traffic will be operated during periods or in areas of saturated ground when surface rutting could occur. The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along the access road route.
- Water. There is no permanent or live water in the immediate or within the project area.

#### 13. Bond Coverage

Bond Coverage is Nationwide. Bond Number: COB000050

#### **Operator's Representatives:**

The XTO PERMIAN OPERATING LLC. representatives for ensuring compliance of the surface use plan are listed below:

#### Surface:

Robert Bartels Project Execution Planner XTO Energy, Incorporated 6401 Holiday Hill Road Bldg 5 Midland, Texas 79701 robert.e.bartels@exxonmobil.com Phone: (406) 478-3671

Onsite: The XTO Permian Operating, LLC. representatives and BLM NRS were on location for onsite on 10/05/2022.

Received by OCD: 3/17/2025 12:12:33 PM



**Section 1 - General** 

Would you like to address long-term produced water disposal? NO

# Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N Produced Water Disposal (PWD) Location: PWD surface owner: Lined pit PWD on or off channel: Lined pit PWD discharge volume (bbl/day): Lined pit Pit liner description: **Pit liner manufacturers** Precipitated solids disposal: Decribe precipitated solids disposal: Precipitated solids disposal Lined pit precipitated solids disposal schedule: Lined pit precipitated solids disposal schedule Lined pit reclamation description: Lined pit reclamation Leak detection system description: Leak detection system

**PWD** disturbance (acres):

**Operator Name: XTO PERMIAN OPERATING LLC** 

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

### Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

# **Section 3 - Unlined**

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

**Unlined pit** 

Precipitated solids disposal:

Decribe precipitated solids disposal:

#### Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

**Unlined pit reclamation** 

**Unlined pit Monitor description:** 

**Unlined pit Monitor** 

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

**Unlined Produced Water Pit Estimated** 

Unlined pit: do you have a reclamation bond for the pit?

**Operator Name: XTO PERMIAN OPERATING LLC** 

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

### Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

# Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

**PWD surface owner:** 

Injection well number:

Assigned injection well API number?

Injection well new surface disturbance (acres):

**Minerals protection information:** 

**Mineral protection** 

**Underground Injection Control (UIC) Permit?** 

**UIC Permit** 

# Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location: **PWD** surface owner: **PWD** disturbance (acres): Surface discharge PWD discharge volume (bbl/day): Surface Discharge NPDES Permit? Surface Discharge NPDES Permit attachment: Surface Discharge site facilities information: Surface discharge site facilities map: Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

Other PWD discharge volume (bbl/day):

PWD disturbance (acres):

PWD disturbance (acres):

Injection well name:

Injection well API number:

Received by OCD: 3/17/2025 12:12:33 PM

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 21 BD

Well Number: 506H

### Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

### Received by OCD: 3/17/2025 12:12:33 PM

# **WAFMSS**

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

APD ID: 10400095872 Operator Name: XTO PERMIAN OPERATING LLC Well Name: POKER LAKE UNIT 21 BD Well Type: OIL WELL

### Submission Date: 11/17/2023

in the second second

Well Number: 506H Well Work Type: Drill Highlighted data reflects the most recent changes <u>Show Final Text</u>

Bond Info Data

# Bond

Federal/Indian APD: FED

BLM Bond number: COB000050

**BIA Bond number:** 

Do you have a reclamation bond? NO

- Is the reclamation bond a rider under the BLM bond?
- Is the reclamation bond BLM or Forest Service?
- **BLM** reclamation bond number:
- Forest Service reclamation bond number:
- Forest Service reclamation bond
- **Reclamation bond number:**
- **Reclamation bond amount:**
- **Reclamation bond rider amount:**
- Additional reclamation bond information

03/17/2025

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

XTO PERMIAN OPERATING LLC	373075
6401 HOLIDAY HILL ROAD	Action Number:
MIDLAND, TX 79707	443100
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

#### CONDITIONS

Created By	Condition	Condition Date
vrajan	Cement is required to circulate on both surface and intermediate1 strings of casing.	3/17/2025
vrajan	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	3/17/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	4/9/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	4/9/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	4/9/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	4/9/2025

CONDITIONS

Action 443100

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