

Form 3160-3  
(June 2015)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC069241
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allotee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. NMNM068294X/BIG EDDY
2. Name of Operator XTO PERMIAN OPERATING LLC		8. Lease Name and Well No. BIG EDDY UNIT 28 QR  106H
3a. Address 6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND, TX 7970	3b. Phone No. (include area code) (432) 683-2277	9. API Well No. 30-015-57306
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NENE / 685 FNL / 410 FEL / LAT 32.455773 / LONG -103.982351 At proposed prod. zone LOT 1 / 330 FNL / 50 FWL / LAT 32.456762 / LONG -104.031227		10. Field and Pool, or Exploratory GOLDEN LANE/WOLFCAMP (GAS)
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area SEC 28/T21S/R29E/NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 410 feet		12. County or Parish EDDY
16. No of acres in lease		13. State NM
17. Spacing Unit dedicated to this well 941.0		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet		19. Proposed Depth 10829 feet / 26148 feet
20. BLM/BIA Bond No. in file FED: COB000050		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3413 feet		22. Approximate date work will start* 12/10/2025
23. Estimated duration 30 days		
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature (Electronic Submission)	Name (Printed/Typed) ADRIAN BAKER / Ph: (432) 682-8873	Date 07/24/2024
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) CHRISTOPHER WALLS / Ph: (575) 234-2234	Date 07/10/2025
Title Petroleum Engineer	Office Carlsbad Field Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS  
Approval Date: 07/10/2025

(Continued on page 2)

\*(Instructions on page 2)

## 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 well, 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 directionally 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 well 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 will 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 connects this information to an 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 Connection 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: NENE / 685 FNL / 410 FEL / TWSP: 21S / RANGE: 29E / SECTION: 28 / LAT: 32.455773 / LONG: -103.982351 ( TVD: 0 feet, MD: 0 feet )  
PPP: NENE / 332 FNL / 0 FWL / TWSP: 21S / RANGE: 29E / SECTION: 30 / LAT: 32.45676 / LONG: -104.015271 ( TVD: 10829 feet, MD: 21300 feet )  
PPP: NWNW / 328 FNL / 1320 FWL / TWSP: 21S / RANGE: 29E / SECTION: 28 / LAT: 32.456755 / LONG: -103.993857 ( TVD: 10829 feet, MD: 14700 feet )  
PPP: NENW / 329 FNL / 2640 FEL / TWSP: 21S / RANGE: 29E / SECTION: 28 / LAT: 32.456753 / LONG: -103.989577 ( TVD: 10829 feet, MD: 13400 feet )  
PPP: NENE / 330 FNL / 660 FWL / TWSP: 21S / RANGE: 29E / SECTION: 28 / LAT: 32.456751 / LONG: -103.98316 ( TVD: 10829 feet, MD: 11400 feet )  
BHL: LOT 1 / 330 FNL / 50 FWL / TWSP: 21S / RANGE: 29E / SECTION: 30 / LAT: 32.456762 / LONG: -104.031227 ( TVD: 10829 feet, MD: 26148 feet )

**BLM Point of Contact**

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

CONFIDENTIAL



PECOS DISTRICT  
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	NMLC069241
LOCATION:	Sec. 28, T.21 S, R 29 E
COUNTY:	Eddy County, New Mexico
WELL NAME & NO.:	Big Eddy Unit 28 QR 106H
SURFACE HOLE FOOTAGE:	685'/N & 410'/E
BOTTOM HOLE FOOTAGE:	330'/N & 50'/W

COA

H2S	<input checked="" type="radio"/> No	<input type="radio"/> Yes
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary
	<input type="radio"/> R-111-Q	<input type="radio"/> Open Annulus
	Choose an option (including blank option.)	
	<input type="radio"/> WIPP	
Cave / Karst	<input type="radio"/> Low	<input checked="" type="radio"/> Medium
	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl
	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input checked="" type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze
	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
Waste Prev.	<input type="radio"/> Self-Certification	<input checked="" type="radio"/> Waste Min. Plan
	<input type="radio"/> APD Submitted prior to 06/10/2024	
Additional Language	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance
	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing
	<input checked="" type="checkbox"/> 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

- The 13-3/8 inch surface casing shall be set at approximately 467 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.
  - 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



- 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 **8 hours** or **500 pounds compressive strength**, 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 **9-5/8** 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 5292'**.
  - 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.**
- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

**Operator has proposed to pump down Surface X Intermediate 1 annulus after primary cementing stage. 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 requirements listed above after the second stage BH to verify TOC.** 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. **No offline cementing for the production section.**



## 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;

**BLM NM CFO DrillingNotifications@BLM.GOV**; (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.

2. 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 8 hours. 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. Wait on cement (WOC) for Water Basin: 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 8 hours. 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

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.
  - i. 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



- 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.

### 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 3/19/2025**  
575-234-5998 / zstevens@blm.gov



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

# Operator Certification Data Report

07/14/2025

## Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

**NAME:** VISHAL RAJAN

**Signed on:** 07/24/2024

**Title:** Regulatory Clerk

**Street Address:** 6401 HOLIDAY HILL ROAD BLDG 5

**City:** MIDLAND

**State:** TX

**Zip:** 79707

**Phone:** (432)620-6704

**Email address:** VISHAL.RAJAN@EXXONMOBIL.COM

## Field

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**





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

Application Data  
07/14/2025

APD ID: 10400099690	Submission Date: 07/24/2024	Highlighted data reflects the most recent changes <a href="#">Show Final Text</a>
Operator Name: XTO PERMIAN OPERATING LLC		
Well Name: BIG EDDY UNIT 28 QR	Well Number: 106H	
Well Type: CONVENTIONAL GAS WELL	Well Work Type: Drill	

Section 1 - General

APD ID: 10400099690	Tie to previous NOS? N	Submission Date: 07/24/2024
BLM Office: Carlsbad	User: VISHAL RAJAN	Title: Regulatory Clerk
Federal/Indian APD: FED	Is the first lease penetrated for production Federal or Indian? FED	
Lease number: NMLC069241	Lease Acres:	
Surface access agreement in place?	Allotted?	Reservation:
Agreement in place? YES	Federal or Indian agreement: FEDERAL	
Agreement number: NMNM68294X		
Agreement name: BIG EDDY		
Keep application confidential? Y		
Permitting Agent? NO	APD Operator: XTO PERMIAN OPERATING LLC	
Operator letter of		

Operator Info

Operator Organization Name: XTO PERMIAN OPERATING LLC	
Operator Address: 6401 HOLIDAY HILL ROAD BLDG 5	Zip: 79707
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? NO	Master Development Plan name:	
Well in Master SUPO? NO	Master SUPO name:	
Well in Master Drilling Plan? NO	Master Drilling Plan name:	
Well Name: BIG EDDY UNIT 28 QR	Well Number: 106H	Well API Number:
Field/Pool or Exploratory? Field and Pool	Field Name: GOLDEN LANE	Pool Name: WOLFCAMP (GAS)

**Well Number: 106H**

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

**Number: A**

**Well Type:** CONVENTIONAL GAS WELL

## Well sub-Type: EVALUATION

**Describe sub-type:**

**Distance to town:** **Distance to nearest well: 30 FT** **Distance to lease line: 410 FT**

**Reservoir well spacing assigned acres Measurement: 941 Acres**

**Well plat:** BEU\_28\_QR\_106H\_C\_102\_20250221135036.pdf

**Well work start Date:** 12/10/2025 **Duration:** 30 DAYS

## Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

### Describe Survey Type:

Datum: NAD83 Vertical Datum: NAVD88

**Survey number:**   **Reference Datum:** GROUND LEVEL

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
SHL Leg #1	685	FNL	410	FEL	21S	29E	28	Aliquot NENE	32.455773	- 103.982351	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 69241	3413			Y
KOP Leg #1	685	FNL	410	FEL	21S	29E	28	Aliquot NENE	32.455773	- 103.982351	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 69241	- 6700	10197	10113	Y
PPP Leg #1-1	330	FNL	660	FW L	21S	29E	28	Aliquot NENE	32.456751	- 103.98316	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 69241	- 7416	11400	10829	Y

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 28 QR

Well Number: 106H

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
PPP Leg #1-2	329	FNL	2640	FEL	21S	29E	28	Aliquot NENW	32.456753	- 103.989577	EDD Y	NEW MEXICO	NEW MEXICO	F	NMLC069144	- 7416	13400	10829	Y
PPP Leg #1-3	328	FNL	1320	FW L	21S	29E	28	Aliquot NWN W	32.456755	- 103.993857	EDD Y	NEW MEXICO	NEW MEXICO	F	NMLC069144A	- 7416	14700	10829	Y
PPP Leg #1-4	332	FNL	0	FW L	21S	29E	30	Aliquot NENE	32.45676	- 104.015271	EDD Y	NEW MEXICO	NEW MEXICO	F	NMLC062573	- 7416	21300	10829	Y
EXIT Leg #1	330	FNL	100	FW L	21S	29E	30	Lot 1	32.456762	- 104.031065	EDD Y	NEW MEXICO	NEW MEXICO	F	NMLC068284	- 7416	26098	10829	Y
BHL Leg #1	330	FNL	50	FW L	21S	29E	30	Lot 1	32.456762	- 104.031227	EDD Y	NEW MEXICO	NEW MEXICO	F	NMLC068284	- 7416	26148	10829	Y

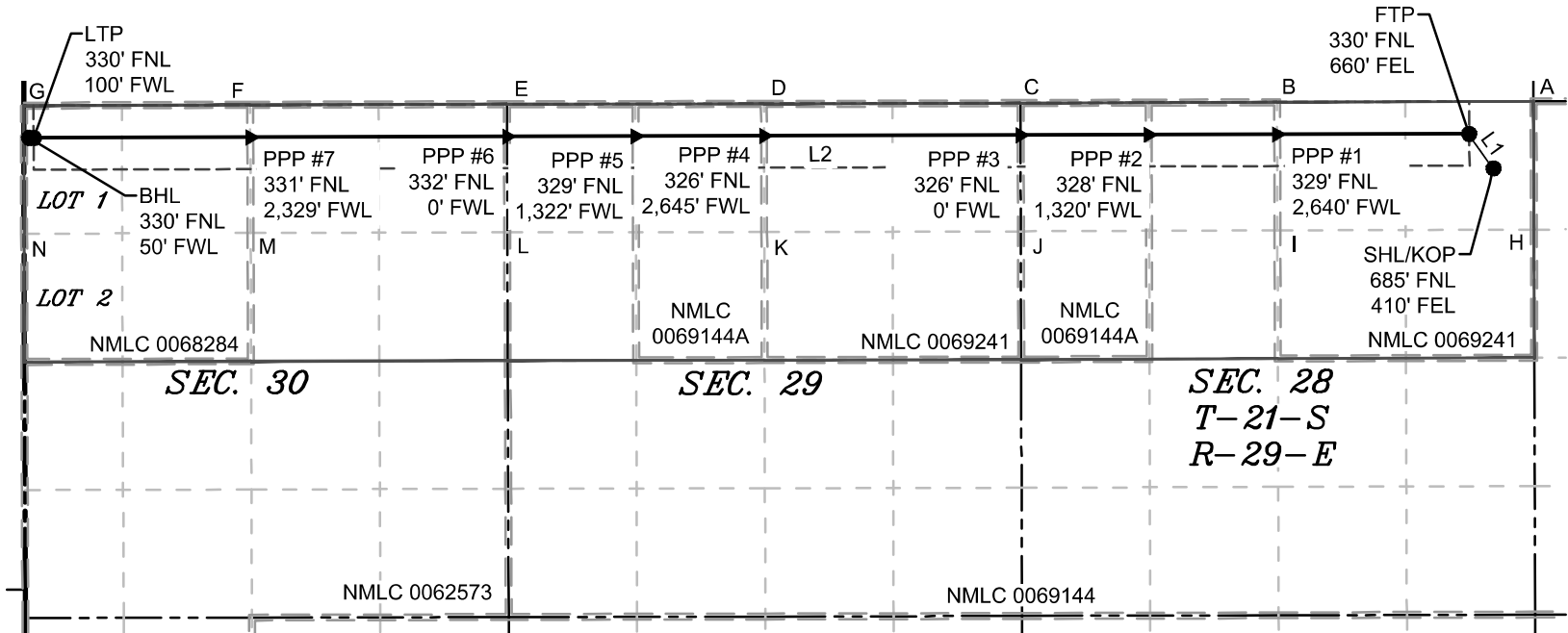


*Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.*

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other then the First Take Point and Last Take Point) that is closest to any outer boundary of the tract.

Surveyor shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land in not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



LEGEND

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	324°44'47"	434.32'
L2	269°50'26"	14,825.94'

LOT ACREAGE TABLE
SECTION 30 T-21-S R-29-E LOT 1 = 30.53 ACRES LOT 2 = 30.57 ACRES

	SECTION LINE
	PROPOSED WELL BORE
	NEW MEXICO MINERAL LEASE
	330' BUFFER
	ALLOCATION AREA

COORDINATE TABLE

SHL/KOP (NAD 83 NME)			FTP (NAD 83 NME)			PPP #1 (NAD 83 NME)			PPP #2 (NAD 83 NME)			PPP #3 (NAD 83 NME)		
Y =	529,719.3	N	Y =	530,074.0	N	Y =	530,068.4	N	Y =	530,064.8	N	Y =	530,061.1	N
X =	649,596.5	E	X =	649,345.8	E	X =	647,366.4	E	X =	646,046.3	E	X =	644,726.2	E
LAT. =	32.455773	°N	LAT. =	32.456751	°N	LAT. =	32.456753	°N	LAT. =	32.456755	°N	LAT. =	32.456756	°N
LONG. =	103.982351	°W	LONG. =	103.983160	°W	LONG. =	103.989577	°W	LONG. =	103.993857	°W	LONG. =	103.998137	°W
PPP #4 (NAD 83 NME)			PPP #5 (NAD 83 NME)			PPP #6 (NAD 83 NME)			PPP #7 (NAD 83 NME)			LTP (NAD 83 NME)		
Y =	530,053.8	N	Y =	530,050.1	N	Y =	530,046.5	N	Y =	530,039.1	N	Y =	530,032.9	N
X =	642,086.2	E	X =	640,763.7	E	X =	639,441.3	E	X =	636,799.3	E	X =	634,569.9	E
LAT. =	32.456758	°N	LAT. =	32.456759	°N	LAT. =	32.456760	°N	LAT. =	32.456761	°N	LAT. =	32.456762	°N
LONG. =	104.006696	°W	LONG. =	104.010984	°W	LONG. =	104.015271	°W	LONG. =	104.023837	°W	LONG. =	104.031065	°W

BHL (NAD 83 NME)		
Y =	530,032.7	N
X =	634,519.9	E
LAT. =	32.456762	°N
LONG. =	104.031227	°W

SHL/KOP (NAD 27 NME)			FTP (NAD 27 NME)			PPP #1 (NAD 27 NME)			PPP #2 (NAD 27 NME)			PPP #3 (NAD 27 NME)		
Y =	529,658.2	N	Y =	530,012.9	N	Y =	530,007.4	N	Y =	530,003.7	N	Y =	530,000.1	N
X =	608,415.9	E	X =	608,165.2	E	X =	606,185.8	E	X =	604,865.7	E	X =	603,545.6	E
LAT. =	32.455652	°N	LAT. =	32.456629	°N	LAT. =	32.456632	°N	LAT. =	32.456634	°N	LAT. =	32.456635	°N
LONG. =	103.981850	°W	LONG. =	103.982659	°W	LONG. =	103.989076	°W	LONG. =	103.993356	°W	LONG. =	103.997636	°W
PPP #4 (NAD 27 NME)			PPP #5 (NAD 27 NME)			PPP #6 (NAD 27 NME)			PPP #7 (NAD 27 NME)			LTP (NAD 27 NME)		
Y =	529,992.8	N	Y =	529,989.1	N	Y =	529,985.5	N	Y =	529,978.1	N	Y =	529,971.9	N
X =	600,905.6	E	X =	599,583.1	E	X =	598,260.7	E	X =	595,618.8	E	X =	593,389.3	E
LAT. =	32.456638	°N	LAT. =	32.456638	°N	LAT. =	32.456639	°N	LAT. =	32.456641	°N	LAT. =	32.456641	°N
LONG. =	104.006195	°W	LONG. =	104.010482	°W	LONG. =	104.014770	°W	LONG. =	104.023335	°W	LONG. =	104.030563	°W

BHL (NAD 27 NME)		
Y =	529,971.8	N
X =	593,339.4	E
LAT. =	32.456641	°N
LONG. =	104.030725	°W

CORNER COORDINATES (NAD 83 NME)					
A - Y =	530,406.0	N	A - X =	650,004.7	E
B - Y =	530,397.8	N	B - X =	647,365.4	E
C - Y =	530,387.5	N	C - X =	644,725.3	E
D - Y =	530,379.5	N	D - X =	642,085.3	E
E - Y =	530,378.8	N	E - X =	639,440.2	E
F - Y =	530,370.3	N	F - X =	636,798.2	E
G - Y =	530,362.5	N	G - X =	634,469.2	E
H - Y =	529,086.0	N	H - X =	650,009.1	E
I - Y =	529,077.1	N	I - X =	647,369.6	E
J - Y =	529,067.2	N	J - X =	644,729.2	E
K - Y =	529,060.4	N	K - X =	642,089.0	E
L - Y =	529,057.2	N	L - X =	639,444.4	E
M - Y =	529,049.3	N	M - X =	636,802.8	E
N - Y =	529,042.3	N	N - X =	634,472.0	E

CORNER COORDINATES (NAD 27 NME)					
A - Y =	530,344.9	N	A - X =	608,824.1	E
B - Y =	530,336.8	N	B - X =	606,184.8	E
C - Y =	530,326.5	N	C - X =	603,544.7	E
D - Y =	530,318.5	N	D - X =	600,904.7	E
E - Y =	530,317.8	N	E - X =	598,259.6	E
F - Y =	530,309.3	N	F - X =	595,617.6	E
G - Y =	530,301.6	N	G - X =	593,288.6	E
H - Y =	529,024.9	N	H - X =	608,828.4	E
I - Y =	529,016.1	N	I - X =	606,188.9	E
J - Y =	529,006.2	N	J - X =	603,548.6	E
K - Y =	528,999.4	N	K - X =	600,908.3	E
L - Y =	528,996.2	N	L - X =	598,263.8	E
M - Y =	528,988.4	N	M - X =	595,622.2	E
N - Y =	528,981.4	N	N - X =	593,291.4	E



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

Drilling Plan Data Report

07/14/2025

APD ID: 10400099690

Submission Date: 07/24/2024

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 28 QR

Well Type: CONVENTIONAL GAS WELL

Well Number: 106H

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
16009450	QUATERNARY	3413	0	0	ALLUVIUM	USEABLE WATER	N
16009451	RUSTLER	3046	367	367	ANHYDRITE, SANDSTONE	USEABLE WATER	N
16009452	SALADO	2836	577	577	SALT	NONE	N
16009453	BASE OF SALT	489	2924	2924	SALT	NONE	N
16009454	DELAWARE	214	3199	3199	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
16009455	BRUSHY CANYON	-1879	5292	5292	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
16009456	BONE SPRING	-3511	6924	6924	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
16009457	BONE SPRING 1ST	-4263	7676	7676	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
16009458	BONE SPRING 2ND	-4760	8173	8173	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
16009459	BONE SPRING 3RD	-5611	9024	9024	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
16009460	WOLFCAMP	-6805	10218	10218	SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : Produced Water	Y
16009461	WOLFCAMP	-6972	10385	10385	SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : Produced Water	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 10829

**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 3-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. See attached. XTO requests a variance to be able to batch drill this well if necessary. XTO requests a break test variance. See attached. XTO requests a variance to utilize a

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 28 QRWell Number: 106H

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

Choke Diagram Attachment:

BEU\_28\_QR\_10MCM\_20250219072620.pdf

BOP Diagram Attachment:

BEU\_28\_QR\_5M10M\_BOP\_20250219072647.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	17.5	13.375	NEW	API	N	0	467	0	467	3413	2946	467	L-80	68	BUTT	13.19	1.67	DRY	48.65	DRY	48.65
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	9997	0	9912	3413	-6499	9997	L-80	40	BUTT	1.39	1.31	DRY	3.82	DRY	3.82
3	PRODUCTION	8.5	5.5	NEW	NON API	Y	0	26148	0	10829	3395	-7416	26148	P-110	20	OTHER - Talon HTQ/Freedom HTQ	1.64	1.05	DRY	1.94	DRY	1.94

Casing Attachments

Casing ID: 1StringSURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):



Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 28 QR

Well Number: 106H

Casing Attachments

Casing ID: 2StringINTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 3StringPRODUCTION

Inspection Document:

Spec Document:

Freedom\_5.5000\_20.0000\_0.3610\_\_P110\_RY\_20240702150156.pdf

Talon\_HTQ\_RD\_5.5000\_20.0000\_0.3610\_\_P110\_RY\_20240702150156.pdf

Tapered String Spec:

BEU\_28\_QR\_106H\_Csg\_20250219072952.pdf

Casing Design Assumptions and Worksheet(s):

BEU\_28\_QR\_106H\_Csg\_20250219073016.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0	NA	NA
SURFACE	Tail		0	467	480	1.35	14.8	648	100	Class C	2% CaCl
INTERMEDIATE	Lead		0	5292	1360	1.35	14.8	1836	100	Class C	NA
INTERMEDIATE	Tail		5292	9997	1860	1.33	14.8	2473.8	100	Class C	NA

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 28 QRWell Number: 106H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		9697	10197	50	2.69	11.5	134.5	30	NeoCem	NA
PRODUCTION	Tail		10197	26148	3140	1.51	13.2	4741.4	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 43 CFR 3172:

Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:

**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 (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
467	9997	OTHER : Saturated Salt for Salt Interval/Direct Emulsion	10	10.5							
0	467	WATER-BASED MUD	8.4	8.9							
9997	26148	OIL-BASED MUD	12	12.5							

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 28 QR

Well Number: 106H

Section 6 - Test, Logging, Coring

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

Open hole logging will not be done on this well.

List of open and cased hole logs run in the well:

CEMENT BOND LOG,DIRECTIONAL SURVEY,MEASUREMENT WHILE DRILLING,GAMMA RAY LOG,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: 7039

Anticipated Surface Pressure: 4656

Anticipated Bottom Hole Temperature(F): 190

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

XTO\_Energy\_H2S\_Plan\_Updated\_20240806082217.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BEU\_28\_QR\_106H\_DD\_20240710105609.pdf

Big\_Eddy\_Unit\_28\_QR\_106H\_Directional\_Plan\_View\_20250219103228.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

BEU\_28\_QR\_H2S\_PAD\_A\_20240708073430.pdf

BEU\_28\_QR\_H2S\_PAD\_C\_20240708073430.pdf

BEU\_28\_QR\_MBS\_13.375\_x\_9.625\_20240708073430.pdf

BEU\_28\_QR\_106H\_Cmt\_20240710105621.pdf

NGMPForm\_Batman\_Updated\_20250221135133.pdf

Other Variance request(s)?: Y

Other Variance attachment:

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 28 QR

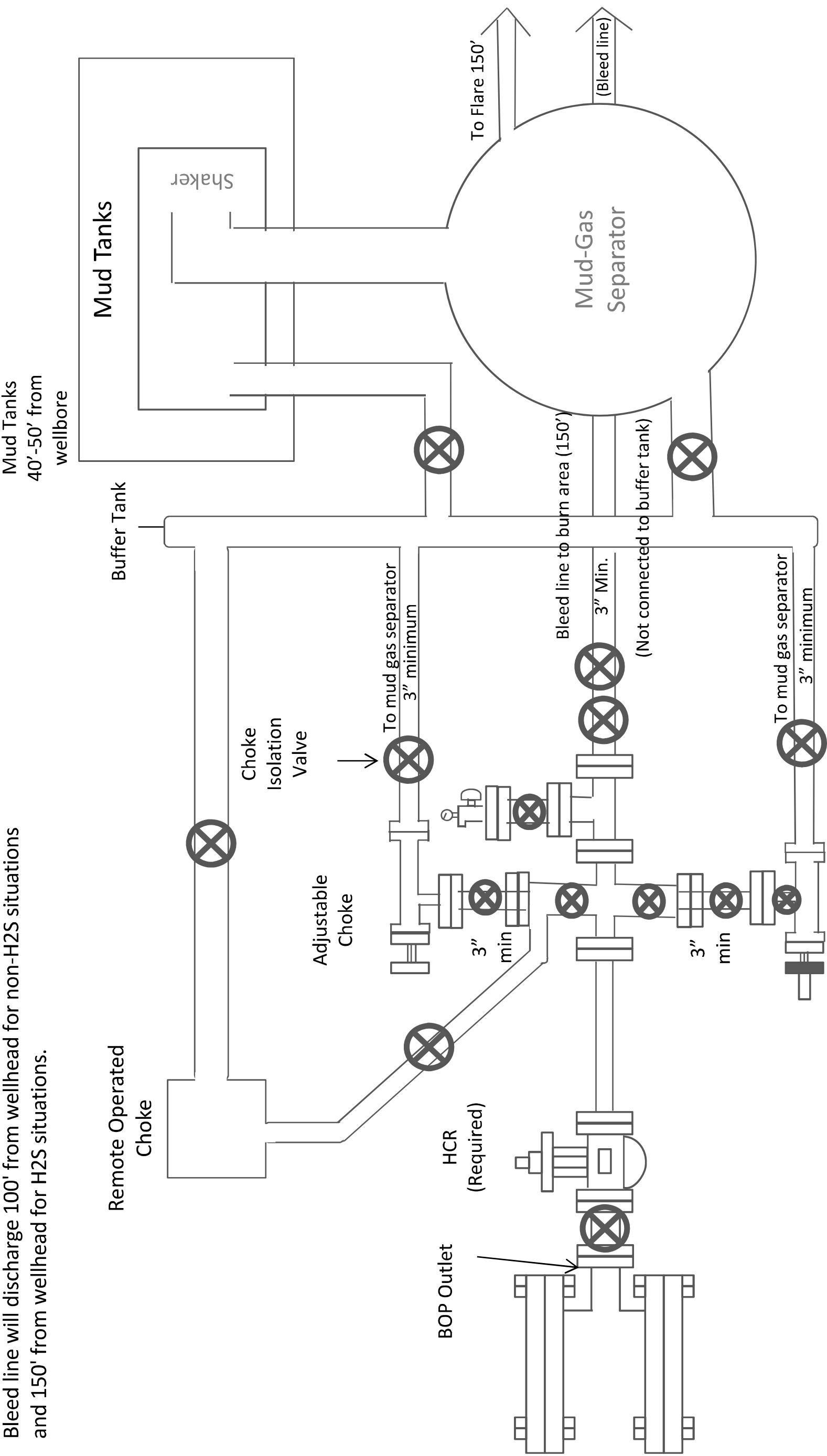
**Well Number:** 106H

- BEU\_28\_QR\_OLCV\_20240708073708.pdf
- BEU\_28\_QR\_Flex\_Hose\_Updated\_20240723102324.pdf
- Spudder\_Rig\_Request\_20240806082248.pdf
- BOP\_Break\_Test\_Variance\_20250219075014.pdf

CONFIDENTIAL

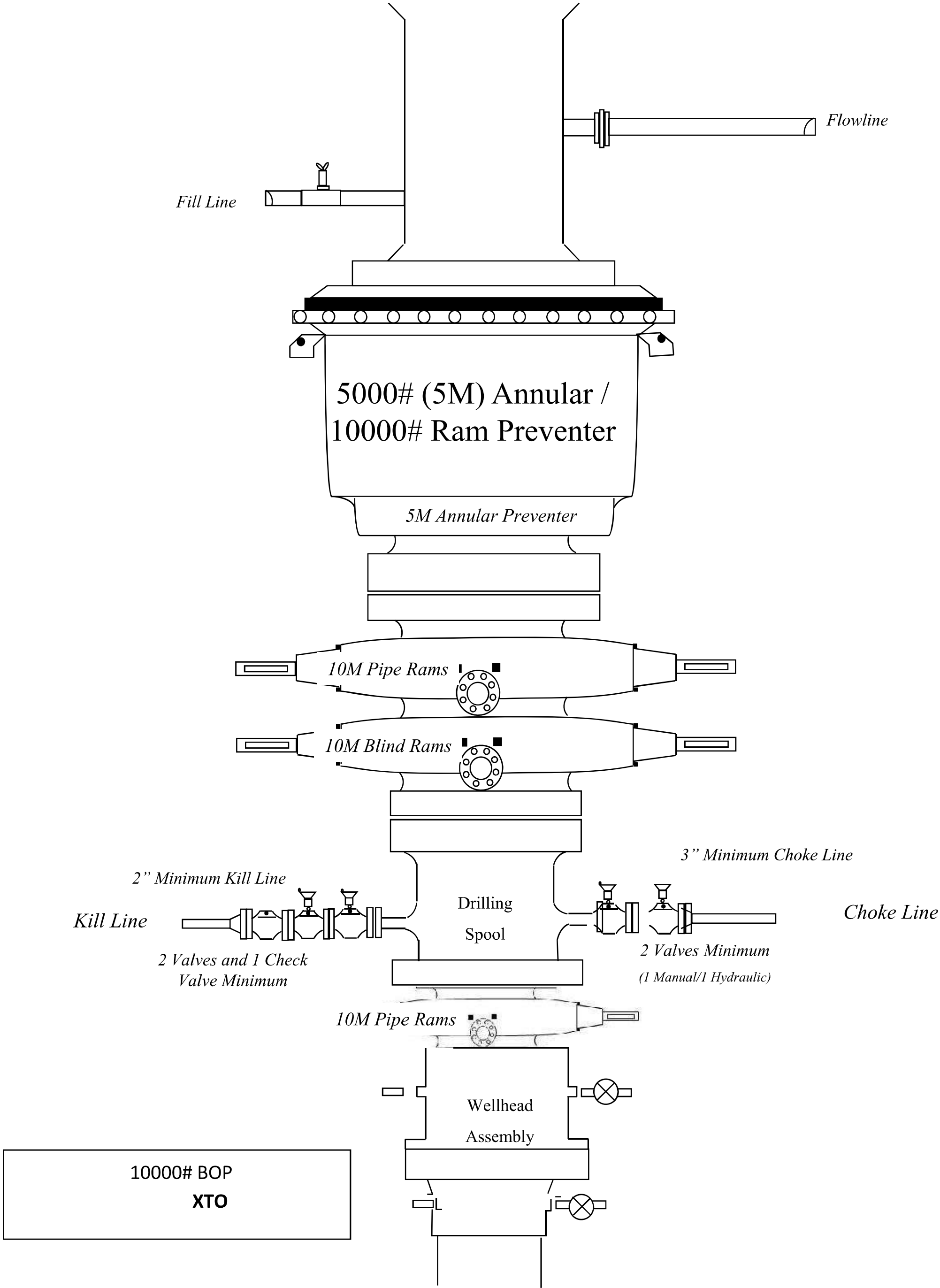


Bleed line will discharge 100' from wellhead for non-H2S situations and 150' from wellhead for H2S situations.



10M Choke Manifold Diagram  
XTO

# Drilling Operations Choke Manifold 10M Service



Casing Assumptions

Casing Design									
Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 467'	13.375	68	HC L-80	BTC	New	1.67	13.19	48.65
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	1.81	2.03	3.17
12.25	4000' – 9997'	9.625	40	HC L-80	BTC	New	1.31	1.39	3.82
8.5	0' – 9897'	5.5	20	RY P-110	Semi-Premium/ Freedom HTQ	New	1.05	1.80	1.94
8.5	9897' - 26147.8'	5.5	20	RY P-110	Semi-Flush/ Talon HTQ	New	1.05	1.64	1.94



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	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

**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

**XTO PERSONNEL:**  
Will Dacus, Drilling Manager 832-948-5021  
Brian Dunn, Drilling Supervisor 832-653-0490  
Robert Bartels, Construction Execution Planner 406-478-3617  
Andy Owens, EH & S Manager 903-245-2602  
Frank Fuentes, Production Foreman 575-689-3363

**SHERIFF DEPARTMENTS:**  
Eddy County 575-887-7551  
Lea County 575-396-3611

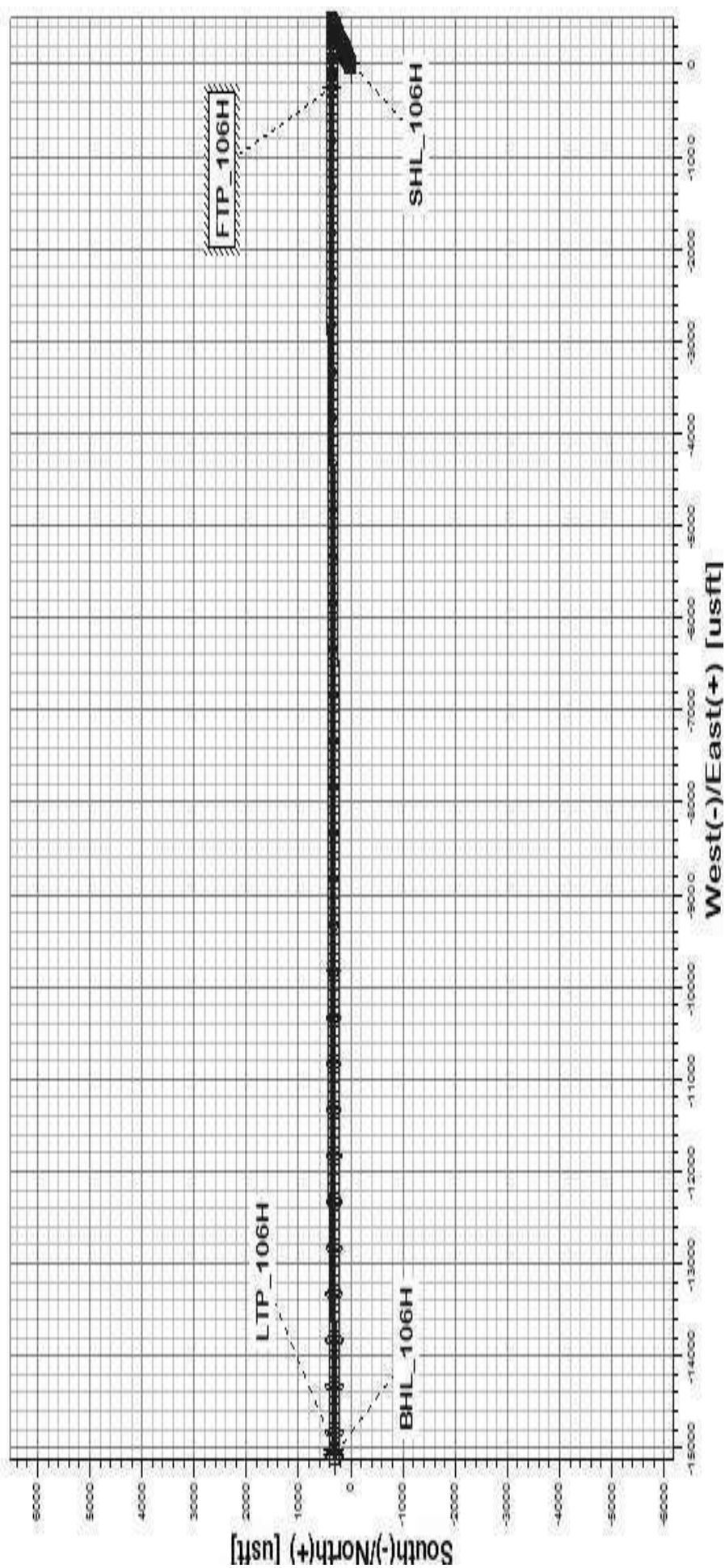
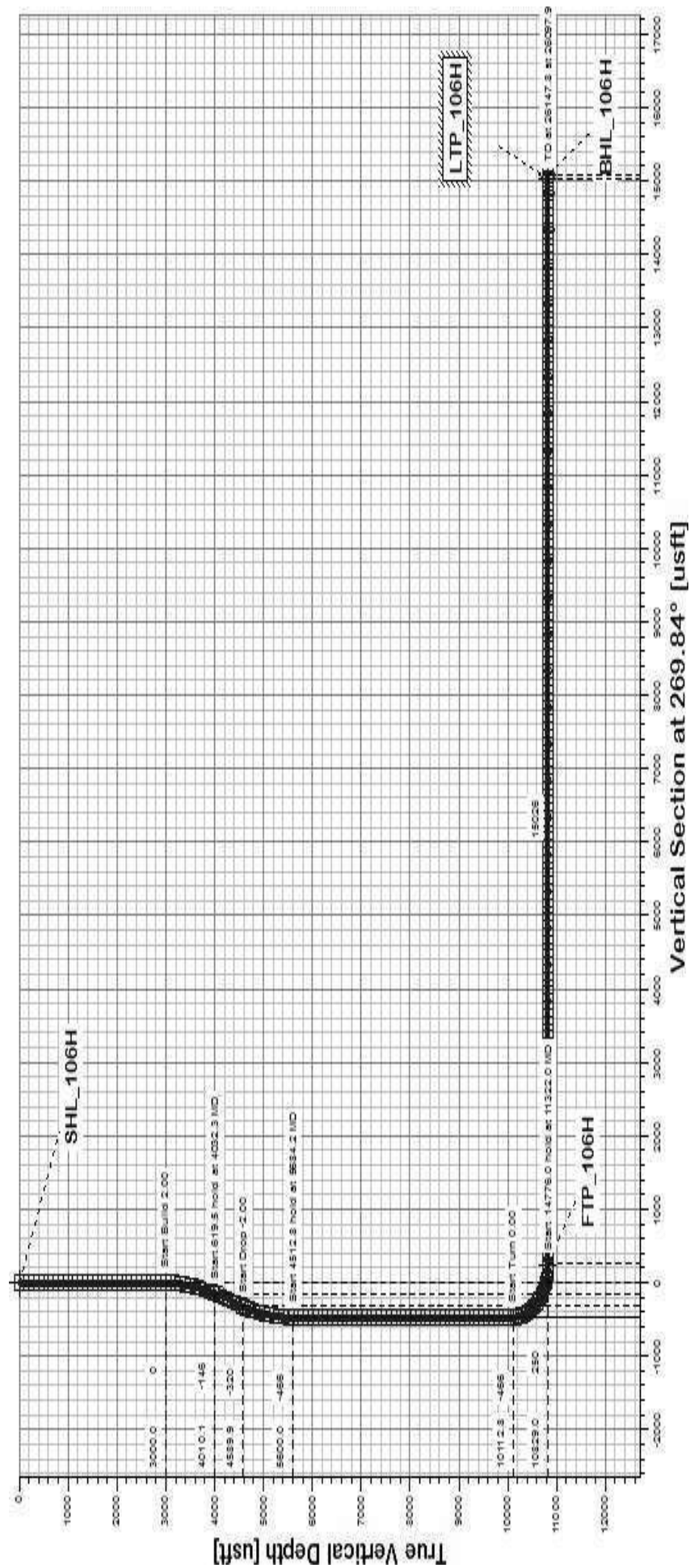
**NEW MEXICO STATE POLICE:** 575-392-5588

**FIRE DEPARTMENTS:** 911  
Carlsbad 575-885-2111  
Eunice 575-394-2111  
Hobbs 575-397-9308  
Jal 575-395-2221  
Lovington 575-396-2359

**HOSPITALS:** 911  
Carlsbad Medical Emergency 575-885-2111  
Eunice Medical Emergency 575-394-2112  
Hobbs Medical Emergency 575-397-9308  
Jal Medical Emergency 575-395-2221  
Lovington Medical Emergency 575-396-2359

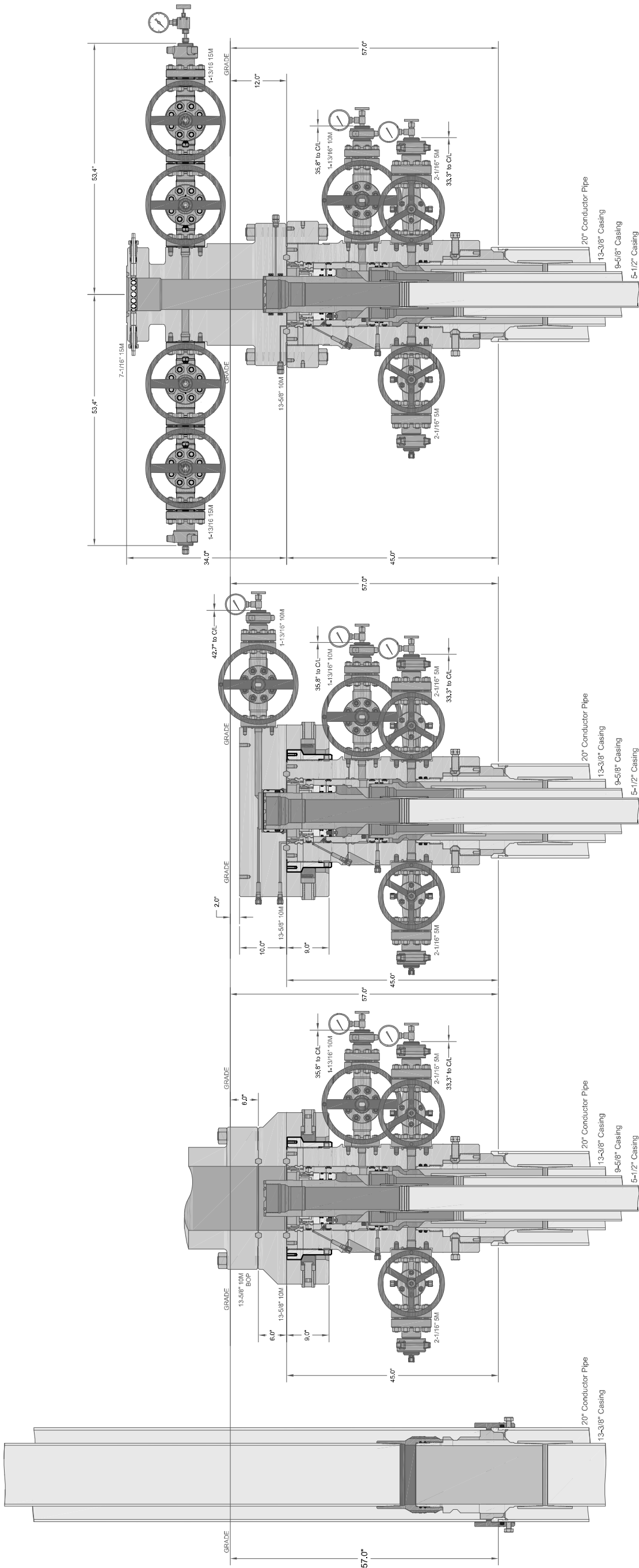
**AGENT NOTIFICATIONS:**  
**For Lea County:**  
Bureau of Land Management – Hobbs 575-393-3612  
New Mexico Oil Conservation Division – Hobbs 575-393-6161  
  
**For Eddy County:**  
Bureau of Land Management - Carlsbad 575-234-5972  
New Mexico Oil Conservation Division - Artesia 575-748-1283

# Big Eddy Unit 28 QR 106H



Formation	TVDS
RUSLTER	3,
SALADO	2,
SALT BASE	5
DELAWARE	2
CHERRY CANYON	-6
BRUSHY CANYON	-1,
BASAL BRUSHY CANYON	-3
BONE SPRING LIME	-3,
AVALON UPPER	-3,
AVALON MIDDLE CARB	-4,
AVALON LOWER	-4,
1ST BONE SPRING LIME	-4,
1ST BONE SPRING SAND	-4,
2ND BONE SPRING SHALE	-4,
2ND BONE SPRING LIME	-4,
2ND BONE SPRING A PRIME SAND	-4,
2ND BONE SPRING A&B SAND	-5,
3RD BONE SPRING LIME	-5,
HARKEY/3RD BONE SPRING SHALE	-5,
3RD BONE SPRING SAND	-6,
WOLFCAMP X & Y	-6,
WOLFCAMP A/B/C/D/E	-6,
LANDING POINT	-7,
WOLFCAMP F	-7,
WOLFCAMP F LOWER	-7,
LOWER WOLFCAMP I	-7,
LOWER WOLFCAMP II	-7,
LOWER WOLFCAMP III	-8,
LOWER WOLFCAMP IIII	-8,
ATOKA	-8,





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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC		XTO ENERGY INC DELAWARE BASIN	
(20") x 13-3/8" x 9-5/8" x 5-1/2" MBU-3T-CFL-R-DBLO-SF Wellhead With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And Drilling & Skid Configurations		DRAWN VJK	31MAR22
		APPRV	
		DRAWING NO.	SDT-2856

## **Cement Variance Request**

### **Intermediate Casing:**

XTO requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (5292') 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, another Echo-meter run will be performed for cement top verification.

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.



State of New Mexico  
Energy, Minerals and Natural Resources Department

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

Submit  
Electronically  
Via E-permitting

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.

Section 1 – Plan Description  
Effective May 25, 2021

I. Operator: XTO Permian Operating LLC                      OGRID: 373075                      Date: 2/10/2025

II. Type: ☒ Original   ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

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.

IV. Central Delivery Point Name: \_\_\_\_\_ Batman CTB \_\_\_\_\_ [See 19.15.27.9(D)(1) NMAC]

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	3yr Anticipated decline Oil BBL/D	Anticipated Gas MCF/D	3 yr anticipated decline Gas MCF/D	Anticipated Produced Water BBL/D	3 yr anticipated decline Water BBL/D
BIG EDDY UNIT 28 QR 100H	TBD	28 T21S R29E	1175 FNL 660 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 28 QR 101H	TBD	28 T21S R29E	1175 FNL 535 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 102H	TBD	28 T21S R29E	1235 FNL 535 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 103H	TBD	28 T21S R29E	1205 FNL 410 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 104H	TBD	28 T21S R29E	1265 FNL 411 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 105H	TBD	28 T21S R29E	1235 FNL 410 FEL	2000	150	5000	1500	8000	500
BIG EDDY UNIT 28 QR 106H	TBD	28 T21S R29E	685 FNL 410 FEL	1500	150	12000	3000	8000	800

BIG EDDY UNIT 28 QR 107H	TBD	28 T21S R29E	715 FNL 410 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 28 QR 108H	TBD	28 T21S R29E	745 FNL 410 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 28 QR 109H	TBD	28 T21S R29E	715 FNL 535 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 110H	TBD	28 T21S R29E	775 FNL 535 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 111H	TBD	28 T21S R29E	775 FNL 410 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 112H	TBD	28 T21S R29E	685 FNL 535 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 113H	TBD	28 T21S R29E	745 FNL 535 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 114H	TBD	28 T21S R29E	745 FNL 660 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 115H	TBD	28 T21S R29E	685 FNL 660 FEL	2000	150	5000	1500	8000	500
BIG EDDY UNIT 28 QR 116H	TBD	28 T21S R29E	715 FNL 660 FEL	1200	150	8000	1000	8000	500
BIG EDDY UNIT 28 QR 117H	TBD	28 T21S R29E	775 FNL 660 FEL	2000	150	5000	1500	8000	500
BIG EDDY UNIT 28 QR 300H	TBD	28 T21S R29E	702 FSL 533 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 301H	TBD	28 T21S R29E	642 FSL 533 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 302H	TBD	28 T21S R29E	702 FSL 408 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 303H	TBD	28 T21S R29E	672 FSL 408 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 304H	TBD	28 T21S R29E	1192 FSL 408 FEL	1500	150	12000	3000	8000	800

BIG EDDY UNIT 28 QR 305H	TBD	28 T21S R29E	1162 FSL 408 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 28 QR 306H	TBD	28 T21S R29E	1132 FSL 408 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 28 QR 307H	TBD	28 T21S R29E	1162 FSL 533 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 308H	TBD	28 T21S R29E	1102 FSL 533 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 309H	TBD	28 T21S R29E	1102 FSL 408 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 310H	TBD	28 T21S R29E	1192 FSL 533 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 311H	TBD	28 T21S R29E	1132 FSL 533 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 312H	TBD	28 T21S R29E	1132 FSL 658 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 28 QR 313H	TBD	28 T21S R29E	1192 FSL 658 FEL	1200	150	8000	1000	8000	500
BIG EDDY UNIT 28 QR 314H	TBD	28 T21S R29E	1162 FSL 658 FEL	2000	150	5000	1500	8000	500
BIG EDDY UNIT 28 QR 315H	TBD	28 T21S R29E	1102 FSL 658 FEL	1200	150	8000	1000	8000	500
BIG EDDY UNIT 28 QR 500	TBD	28 T21S R29E	1205 FNL 660 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 28 QR 501	TBD	28 T21S R29E	1205 FNL 535 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 28 QR 502	TBD	28 T21S R29E	672 FSL 533 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 100H	TBD	33 T21S R29E	1183 FNL 739 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 101H	TBD	33 T21S R29E	1212 FNL 743 FEL	2000	250	5000	1000	6000	800

BIG EDDY UNIT 33 QR 102H	TBD	33 T21S R29E	1201 FNL 615 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 103H	TBD	33 T21S R29E	717 FNL 542 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 33 QR 104H	TBD	33 T21S R29E	776 FNL 551 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 33 QR 105H	TBD	33 T21S R29E	747 FNL 546 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 106H	TBD	33 T21S R29E	806 FNL 555 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 107H	TBD	33 T21S R29E	698 FNL 665 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 108H	TBD	33 T21S R29E	758 FNL 674 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 109H	TBD	33 T21S R29E	728 FNL 670 FEL	2000	150	5000	1500	8000	500
BIG EDDY UNIT 33 QR 110H	TBD	33 T21S R29E	787 FNL 679 FEL	1200	150	8000	1000	8000	500
BIG EDDY UNIT 33 QR 200H	TBD	33 T21S R29E	2311 FSL 506 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 201H	TBD	33 T21S R29E	2281 FSL 506 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 202H	TBD	33 T21S R29E	2312 FSL 381 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 203H	TBD	33 T21S R29E	2282 FSL 381 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 204H	TBD	33 T21S R29E	2329 FNL 381 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 33 QR 205H	TBD	33 T21S R29E	2359 FNL 381 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 33 QR 206H	TBD	33 T21S R29E	2329 FNL 506 FEL	2000	250	5000	1000	6000	800

BIG EDDY UNIT 33 QR 207H	TBD	33 T21S R29E	2359 FNL 506 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 208H	TBD	33 T21S R29E	2329 FNL 631 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 209H	TBD	33 T21S R29E	2389 FNL 631 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 210H	TBD	33 T21S R29E	2359 FNL 631 FEL	2000	150	5000	1500	8000	500
BIG EDDY UNIT 33 QR 211H	TBD	33 T21S R29E	2419 FNL 631 FEL	1200	150	8000	1000	8000	500
BIG EDDY UNIT 33 QR 300H	TBD	33 T21S R29E	737 FSL 642 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 33 QR 301H	TBD	33 T21S R29E	828 FSL 517 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 302H	TBD	33 T21S R29E	798 FSL 517 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 303H	TBD	33 T21S R29E	830 FSL 392 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 304H	TBD	33 T21S R29E	770 FSL 392 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 305H	TBD	33 T21S R29E	800 FSL 392 FEL	1200	150	8000	1000	8000	500
BIG EDDY UNIT 33 QR 306H	TBD	33 T21S R29E	1320 FSL 392 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 33 QR 307H	TBD	33 T21S R29E	1290 FSL 392 FEL	1500	150	12000	3000	8000	800
BIG EDDY UNIT 33 QR 308H	TBD	33 T21S R29E	1318 FSL 517 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 309H	TBD	33 T21S R29E	1288 FSL 517 FEL	2000	250	5000	1000	6000	800
BIG EDDY UNIT 33 QR 310H	TBD	33 T21S R29E	1317 FSL 642 FEL	2200	300	3000	1000	6000	500



BIG EDDY UNIT 33 QR 311H	TBD	33 T21S R29E	1257 FSL 642 FEL	2200	300	3000	1000	6000	500
BIG EDDY UNIT 33 QR 312H	TBD	33 T21S R29E	1287 FSL 642 FEL	2000	150	5000	1500	8000	500
BIG EDDY UNIT 33 QR 313H	TBD	33 T21S R29E	1227 FSL 642 FEL	1200	150	8000	1000	8000	500

**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
BIG EDDY UNIT 28 QR 100H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 101H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 102H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 103H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 104H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 105H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 106H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 107H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 108H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 109H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 110H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 111H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 112H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 113H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 114H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 115H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 116H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 117H	TBD	TBD	TBD	TBD	TBD	TBD

BIG EDDY UNIT 28 QR 300H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 301H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 302H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 303H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 304H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 305H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 306H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 307H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 308H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 309H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 310H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 311H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 312H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 313H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 314H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 315H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 500	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 501	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 28 QR 502	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 100H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 101H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 102H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 103H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 104H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 105H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 106H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 107H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 108H	TBD	TBD	TBD	TBD	TBD	TBD

BIG EDDY UNIT 33 QR 109H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 110H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 200H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 201H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 202H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 203H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 204H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 205H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 206H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 207H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 208H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 209H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 210H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 211H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 300H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 301H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 302H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 303H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 304H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 305H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 306H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 307H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 308H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 309H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 310H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 311H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 312H	TBD	TBD	TBD	TBD	TBD	TBD
BIG EDDY UNIT 33 QR 313H	TBD	TBD	TBD	TBD	TBD	TBD

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

**VII. Operational Practices:** ☒ 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:** ☒ Attach a complete description of Operator’s best management practices to minimize venting during active and planned maintenance.

**XIV. Confidentiality:** ☐ 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:

☒ 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

☐ 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.** ☐ 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.** ☐ 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

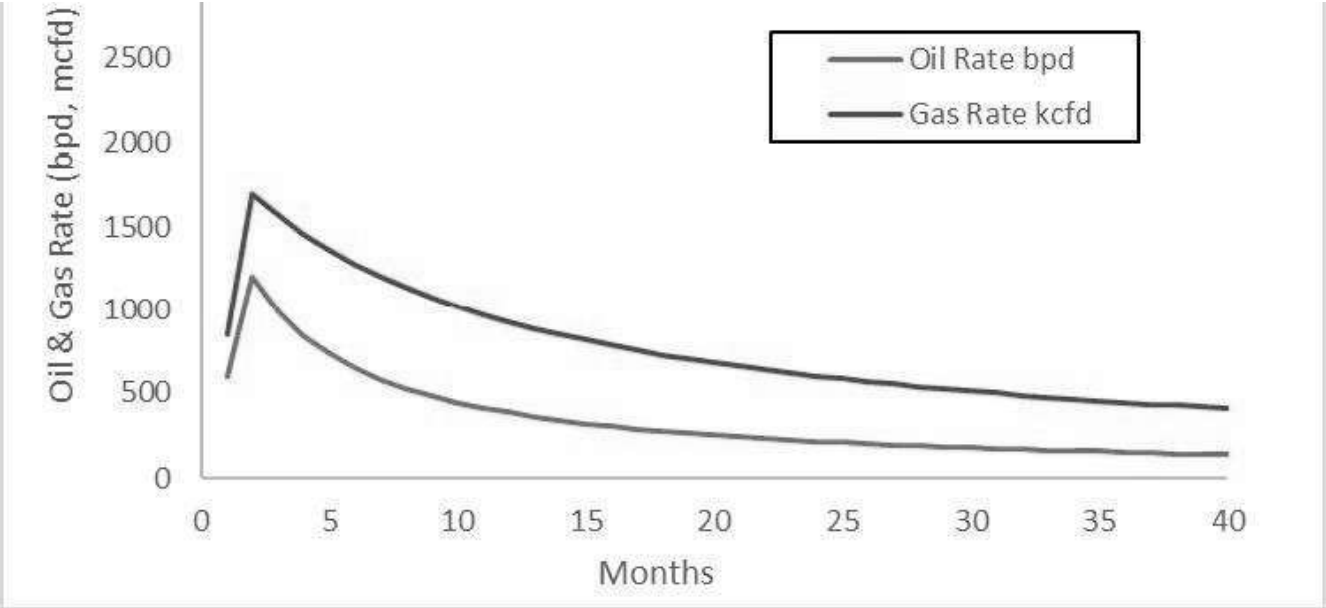
**(b)** Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD’s approval a new or revised Natural 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.

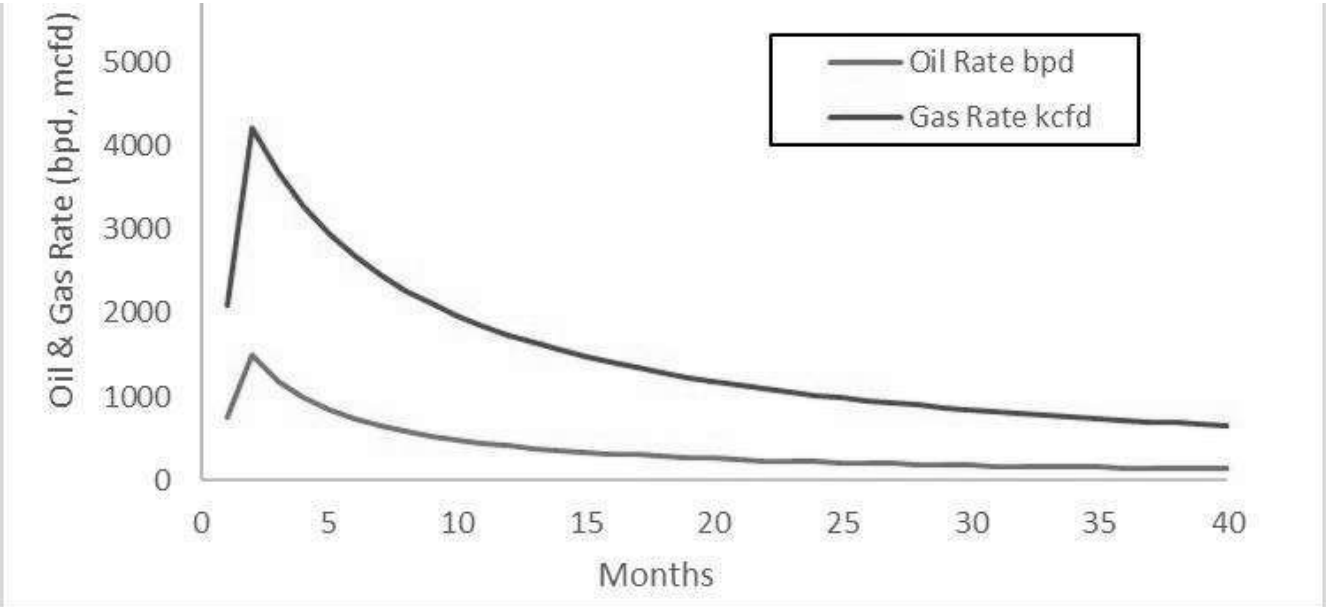
**I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.**
- |  |                                       |
|--|---------------------------------------|
| Signature:   | <i>L. Srinivas Naveen</i>             |
| Printed Name:  | Srinivas Naveen Laghuvarapu           |
| Title:   | Regulatory Analyst                    |
| E-mail Address:  | srinivas.n.laghuvarapu@exxonmobil.com |
| Date:  | 2/10/2025                             |
| Phone:   | 346-224-6122                          |
| <div>OIL CONSERVATION DIVISION<br/>(Only applicable when submitted as a standalone form)</div> |                                       |
| Approved By:   |                                       |
| Title:   |                                       |
| Approval Date:   |                                       |
| Conditions of Approval:  |                                       |
- Page 12 of 13
- Released to Imaging: 10/1/2025 7:41:31 AM

Big Eddy Unit – Decline Curves:

Bone Spring:



Wolfcamp:



## 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 in-feasible, 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 LLC will 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.



# Long Lead\_Well Planning

BEU 28 QR

Big Eddy Unit 28 QR 106H

Big Eddy Unit 28 QR 106H

OH

Plan: Plan 1

# Standard Planning Report

29 June, 2024

XTO Energy

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well Big Eddy Unit 28 QR 106H
Company:	Long Lead_Well Planning	TVD Reference:	RKB (+32) @ 3445.0usft
Project:	BEU 28 QR	MD Reference:	RKB (+32) @ 3445.0usft
Site:	Big Eddy Unit 28 QR 106H	North Reference:	Grid
Well:	Big Eddy Unit 28 QR 106H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project	BEU 28 QR		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Big Eddy Unit 28 QR 106H		
Site Position:		Northing:	529,658.20 usft
From:	Map	Easting:	608,415.90 usft
Position Uncertainty:	3.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 27' 20.348 N
		Longitude:	103° 58' 54.661 W

Well	Big Eddy Unit 28 QR 106H		
Well Position	+N/-S	0.0 usft	Northing: 529,658.20 usft
	+E/-W	0.0 usft	Easting: 608,415.90 usft
Position Uncertainty		0.0 usft	Wellhead Elevation: usft
Grid Convergence:		0.19 °	Ground Level: 3,413.0 usft
			Latitude: 32° 27' 20.348 N
			Longitude: 103° 58' 54.661 W

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/29/2024	6.40	59.95	47,272.79633817

Design	Plan 1			
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:		Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
		0.0	0.0	0.0
				Direction (°)
				269.84

Plan Survey Tool Program	Date	6/29/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	26,147.8	Plan 1 (OH)	XOM_R2OWSG MWD+IFR1+OWSG MWD + IFR1 + Multi-St

XTO Energy

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well Big Eddy Unit 28 QR 106H
Company:	Long Lead_Well Planning	TVD Reference:	RKB (+32) @ 3445.0usft
Project:	BEU 28 QR	MD Reference:	RKB (+32) @ 3445.0usft
Site:	Big Eddy Unit 28 QR 106H	North Reference:	Grid
Well:	Big Eddy Unit 28 QR 106H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,032.3	20.65	52.54	4,010.1	111.9	146.0	2.00	2.00	0.00	52.54	
4,651.9	20.65	52.54	4,589.9	244.8	319.4	0.00	0.00	0.00	0.00	
5,684.2	0.00	0.00	5,600.0	356.7	465.5	2.00	-2.00	0.00	180.00	
10,197.0	0.00	0.00	10,112.8	356.7	465.5	0.00	0.00	0.00	0.00	
11,322.0	90.00	269.84	10,829.0	354.7	-250.7	8.00	0.00	0.00	269.84	FTP_106H
26,097.9	90.00	269.84	10,829.0	313.7	-15,026.6	0.00	0.00	0.00	0.00	LTP_106H
26,147.8	90.00	269.84	10,829.0	313.6	-15,076.5	0.00	0.00	0.00	0.00	BHL_106H

XTO Energy

Planning Report

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Company:	Long Lead_Well Planning	TVD Reference:	RKB (+32) @ 3445.0usft
Project:	BEU 28 QR	MD Reference:	RKB (+32) @ 3445.0usft
Site:	Big Eddy Unit 28 QR 106H	North Reference:	Grid
Well:	Big Eddy Unit 28 QR 106H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL_106H									
367.0	0.00	0.00	367.0	0.0	0.0	0.0	0.00	0.00	0.00
RUSLTER									
577.0	0.00	0.00	577.0	0.0	0.0	0.0	0.00	0.00	0.00
SALADO									
2,924.0	0.00	0.00	2,924.0	0.0	0.0	0.0	0.00	0.00	0.00
SALT BASE									
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	2.00	52.54	3,100.0	1.1	1.4	-1.4	2.00	2.00	0.00
3,199.2	3.98	52.54	3,199.0	4.2	5.5	-5.5	2.00	2.00	0.00
DELAWARE									
3,200.0	4.00	52.54	3,199.8	4.2	5.5	-5.6	2.00	2.00	0.00
3,300.0	6.00	52.54	3,299.5	9.5	12.5	-12.5	2.00	2.00	0.00
3,400.0	8.00	52.54	3,398.7	17.0	22.1	-22.2	2.00	2.00	0.00
3,500.0	10.00	52.54	3,497.5	26.5	34.5	-34.6	2.00	2.00	0.00
3,600.0	12.00	52.54	3,595.6	38.1	49.7	-49.8	2.00	2.00	0.00
3,700.0	14.00	52.54	3,693.1	51.8	67.5	-67.7	2.00	2.00	0.00
3,800.0	16.00	52.54	3,789.6	67.5	88.1	-88.3	2.00	2.00	0.00
3,900.0	18.00	52.54	3,885.3	85.3	111.3	-111.5	2.00	2.00	0.00
4,000.0	20.00	52.54	3,979.8	105.1	137.1	-137.4	2.00	2.00	0.00
4,032.3	20.65	52.54	4,010.1	111.9	146.0	-146.4	2.00	2.00	0.00
4,100.0	20.65	52.54	4,073.5	126.4	165.0	-165.3	0.00	0.00	0.00
4,161.5	20.65	52.54	4,131.0	139.6	182.2	-182.6	0.00	0.00	0.00
CHERRY CANYON									
4,200.0	20.65	52.54	4,167.0	147.9	193.0	-193.4	0.00	0.00	0.00
4,300.0	20.65	52.54	4,260.6	169.3	221.0	-221.4	0.00	0.00	0.00
4,400.0	20.65	52.54	4,354.2	190.8	249.0	-249.5	0.00	0.00	0.00
4,500.0	20.65	52.54	4,447.8	212.2	276.9	-277.5	0.00	0.00	0.00
4,600.0	20.65	52.54	4,541.3	233.7	304.9	-305.6	0.00	0.00	0.00
4,651.9	20.65	52.54	4,589.9	244.8	319.4	-320.1	0.00	0.00	0.00
4,700.0	19.68	52.54	4,635.1	254.9	332.6	-333.3	2.00	-2.00	0.00
4,800.0	17.68	52.54	4,729.8	274.4	358.0	-358.8	2.00	-2.00	0.00
4,900.0	15.68	52.54	4,825.6	291.8	380.8	-381.6	2.00	-2.00	0.00
5,000.0	13.68	52.54	4,922.3	307.2	401.0	-401.8	2.00	-2.00	0.00
5,100.0	11.68	52.54	5,019.9	320.6	418.4	-419.3	2.00	-2.00	0.00
5,200.0	9.68	52.54	5,118.1	331.9	433.1	-434.0	2.00	-2.00	0.00
5,300.0	7.68	52.54	5,217.0	341.0	445.1	-446.0	2.00	-2.00	0.00
5,375.6	6.17	52.54	5,292.0	346.6	452.3	-453.3	2.00	-2.00	0.00
BRUSHY CANYON									
5,400.0	5.68	52.54	5,316.3	348.1	454.3	-455.3	2.00	-2.00	0.00
5,500.0	3.68	52.54	5,415.9	353.1	460.8	-461.8	2.00	-2.00	0.00
5,600.0	1.68	52.54	5,515.8	355.9	464.5	-465.5	2.00	-2.00	0.00
5,684.2	0.00	0.00	5,600.0	356.7	465.5	-466.5	2.00	-2.00	0.00
6,710.2	0.00	0.00	6,626.0	356.7	465.5	-466.5	0.00	0.00	0.00
BASAL BRUSHY CANYON									
7,008.2	0.00	0.00	6,924.0	356.7	465.5	-466.5	0.00	0.00	0.00
BONE SPRING LIME									
7,139.2	0.00	0.00	7,055.0	356.7	465.5	-466.5	0.00	0.00	0.00
AVALON UPPER									
7,534.2	0.00	0.00	7,450.0	356.7	465.5	-466.5	0.00	0.00	0.00
AVALON MIDDLE CARB									
7,625.2	0.00	0.00	7,541.0	356.7	465.5	-466.5	0.00	0.00	0.00



XTO Energy

Planning Report

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Project:	BEU 28 QR	MD Reference:	RKB (+32) @ 3445.0usft
Site:	Big Eddy Unit 28 QR 106H	North Reference:	Grid
Well:	Big Eddy Unit 28 QR 106H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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)
AVALON LOWER									
7,760.2	0.00	0.00	7,676.0	356.7	465.5	-466.5	0.00	0.00	0.00
1ST BONE SPRING LIME									
8,064.2	0.00	0.00	7,980.0	356.7	465.5	-466.5	0.00	0.00	0.00
1ST BONE SPRING SAND									
8,257.2	0.00	0.00	8,173.0	356.7	465.5	-466.5	0.00	0.00	0.00
2ND BONE SPRING SHALE									
8,455.2	0.00	0.00	8,371.0	356.7	465.5	-466.5	0.00	0.00	0.00
2ND BONE SPRING LIME									
8,518.2	0.00	0.00	8,434.0	356.7	465.5	-466.5	0.00	0.00	0.00
2ND BONE SPRING A PRIME SAND									
8,766.2	0.00	0.00	8,682.0	356.7	465.5	-466.5	0.00	0.00	0.00
2ND BONE SPRING A&B SAND									
9,108.2	0.00	0.00	9,024.0	356.7	465.5	-466.5	0.00	0.00	0.00
3RD BONE SPRING LIME									
9,473.2	0.00	0.00	9,389.0	356.7	465.5	-466.5	0.00	0.00	0.00
HARKEY/3RD BONE SPRING SHALE									
9,937.2	0.00	0.00	9,853.0	356.7	465.5	-466.5	0.00	0.00	0.00
3RD BONE SPRING SAND									
10,197.0	0.00	0.00	10,112.8	356.7	465.5	-466.5	0.00	0.00	0.00
10,200.0	0.24	269.84	10,115.8	356.7	465.5	-466.5	8.00	8.00	0.00
10,300.0	8.24	269.84	10,215.5	356.7	458.1	-459.1	8.00	8.00	0.00
10,302.6	8.45	269.84	10,218.0	356.7	457.7	-458.7	8.00	8.00	0.00
WOLFCAMP X & Y									
10,400.0	16.24	269.84	10,313.1	356.6	436.9	-437.9	8.00	8.00	0.00
10,476.2	22.34	269.84	10,385.0	356.5	411.8	-412.7	8.00	8.00	0.00
WOLFCAMP A/B/C/D/E									
10,500.0	24.24	269.84	10,406.9	356.5	402.3	-403.3	8.00	8.00	0.00
10,600.0	32.24	269.84	10,494.9	356.4	355.1	-356.1	8.00	8.00	0.00
10,700.0	40.24	269.84	10,575.5	356.2	296.0	-297.0	8.00	8.00	0.00
10,800.0	48.24	269.84	10,647.1	356.0	226.3	-227.3	8.00	8.00	0.00
10,900.0	56.24	269.84	10,708.2	355.8	147.3	-148.3	8.00	8.00	0.00
11,000.0	64.24	269.84	10,757.8	355.6	60.5	-61.5	8.00	8.00	0.00
11,100.0	72.24	269.84	10,794.9	355.3	-32.3	31.3	8.00	8.00	0.00
11,200.0	80.24	269.84	10,818.6	355.0	-129.3	128.3	8.00	8.00	0.00
11,300.0	88.24	269.84	10,828.7	354.8	-228.7	227.7	8.00	8.00	0.00
11,322.0	90.00	269.84	10,829.0	354.7	-250.7	249.7	8.00	8.00	0.00
LANDING POINT - FTP_106H									
11,400.0	90.00	269.84	10,829.0	354.5	-328.7	327.7	0.00	0.00	0.00
11,500.0	90.00	269.84	10,829.0	354.2	-428.7	427.7	0.00	0.00	0.00
11,600.0	90.00	269.84	10,829.0	353.9	-528.7	527.7	0.00	0.00	0.00
11,700.0	90.00	269.84	10,829.0	353.7	-628.7	627.7	0.00	0.00	0.00
11,800.0	90.00	269.84	10,829.0	353.4	-728.7	727.7	0.00	0.00	0.00
11,900.0	90.00	269.84	10,829.0	353.1	-828.7	827.7	0.00	0.00	0.00
12,000.0	90.00	269.84	10,829.0	352.8	-928.7	927.7	0.00	0.00	0.00
12,100.0	90.00	269.84	10,829.0	352.5	-1,028.7	1,027.7	0.00	0.00	0.00
12,200.0	90.00	269.84	10,829.0	352.3	-1,128.7	1,127.7	0.00	0.00	0.00
12,300.0	90.00	269.84	10,829.0	352.0	-1,228.7	1,227.7	0.00	0.00	0.00
12,400.0	90.00	269.84	10,829.0	351.7	-1,328.7	1,327.7	0.00	0.00	0.00
12,500.0	90.00	269.84	10,829.0	351.4	-1,428.7	1,427.7	0.00	0.00	0.00
12,600.0	90.00	269.84	10,829.0	351.2	-1,528.7	1,527.7	0.00	0.00	0.00
12,700.0	90.00	269.84	10,829.0	350.9	-1,628.7	1,627.7	0.00	0.00	0.00

XTO Energy

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well Big Eddy Unit 28 QR 106H
Company:	Long Lead_Well Planning	TVD Reference:	RKB (+32) @ 3445.0usft
Project:	BEU 28 QR	MD Reference:	RKB (+32) @ 3445.0usft
Site:	Big Eddy Unit 28 QR 106H	North Reference:	Grid
Well:	Big Eddy Unit 28 QR 106H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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)
12,800.0	90.00	269.84	10,829.0	350.6	-1,728.7	1,727.7	0.00	0.00	0.00
12,900.0	90.00	269.84	10,829.0	350.3	-1,828.7	1,827.7	0.00	0.00	0.00
13,000.0	90.00	269.84	10,829.0	350.0	-1,928.7	1,927.7	0.00	0.00	0.00
13,100.0	90.00	269.84	10,829.0	349.8	-2,028.7	2,027.7	0.00	0.00	0.00
13,200.0	90.00	269.84	10,829.0	349.5	-2,128.7	2,127.7	0.00	0.00	0.00
13,300.0	90.00	269.84	10,829.0	349.2	-2,228.7	2,227.7	0.00	0.00	0.00
13,400.0	90.00	269.84	10,829.0	348.9	-2,328.7	2,327.7	0.00	0.00	0.00
13,500.0	90.00	269.84	10,829.0	348.7	-2,428.7	2,427.7	0.00	0.00	0.00
13,600.0	90.00	269.84	10,829.0	348.4	-2,528.7	2,527.7	0.00	0.00	0.00
13,700.0	90.00	269.84	10,829.0	348.1	-2,628.7	2,627.7	0.00	0.00	0.00
13,800.0	90.00	269.84	10,829.0	347.8	-2,728.7	2,727.7	0.00	0.00	0.00
13,900.0	90.00	269.84	10,829.0	347.5	-2,828.7	2,827.7	0.00	0.00	0.00
14,000.0	90.00	269.84	10,829.0	347.3	-2,928.7	2,927.7	0.00	0.00	0.00
14,100.0	90.00	269.84	10,829.0	347.0	-3,028.7	3,027.7	0.00	0.00	0.00
14,200.0	90.00	269.84	10,829.0	346.7	-3,128.7	3,127.7	0.00	0.00	0.00
14,300.0	90.00	269.84	10,829.0	346.4	-3,228.7	3,227.7	0.00	0.00	0.00
14,400.0	90.00	269.84	10,829.0	346.2	-3,328.7	3,327.7	0.00	0.00	0.00
14,500.0	90.00	269.84	10,829.0	345.9	-3,428.7	3,427.7	0.00	0.00	0.00
14,600.0	90.00	269.84	10,829.0	345.6	-3,528.7	3,527.7	0.00	0.00	0.00
14,700.0	90.00	269.84	10,829.0	345.3	-3,628.7	3,627.7	0.00	0.00	0.00
14,800.0	90.00	269.84	10,829.0	345.0	-3,728.7	3,727.7	0.00	0.00	0.00
14,900.0	90.00	269.84	10,829.0	344.8	-3,828.7	3,827.7	0.00	0.00	0.00
15,000.0	90.00	269.84	10,829.0	344.5	-3,928.7	3,927.7	0.00	0.00	0.00
15,100.0	90.00	269.84	10,829.0	344.2	-4,028.7	4,027.7	0.00	0.00	0.00
15,200.0	90.00	269.84	10,829.0	343.9	-4,128.7	4,127.7	0.00	0.00	0.00
15,300.0	90.00	269.84	10,829.0	343.7	-4,228.7	4,227.7	0.00	0.00	0.00
15,400.0	90.00	269.84	10,829.0	343.4	-4,328.7	4,327.7	0.00	0.00	0.00
15,500.0	90.00	269.84	10,829.0	343.1	-4,428.7	4,427.7	0.00	0.00	0.00
15,600.0	90.00	269.84	10,829.0	342.8	-4,528.7	4,527.7	0.00	0.00	0.00
15,700.0	90.00	269.84	10,829.0	342.6	-4,628.7	4,627.7	0.00	0.00	0.00
15,800.0	90.00	269.84	10,829.0	342.3	-4,728.7	4,727.7	0.00	0.00	0.00
15,900.0	90.00	269.84	10,829.0	342.0	-4,828.7	4,827.7	0.00	0.00	0.00
16,000.0	90.00	269.84	10,829.0	341.7	-4,928.7	4,927.7	0.00	0.00	0.00
16,100.0	90.00	269.84	10,829.0	341.4	-5,028.7	5,027.7	0.00	0.00	0.00
16,200.0	90.00	269.84	10,829.0	341.2	-5,128.7	5,127.7	0.00	0.00	0.00
16,300.0	90.00	269.84	10,829.0	340.9	-5,228.7	5,227.7	0.00	0.00	0.00
16,400.0	90.00	269.84	10,829.0	340.6	-5,328.7	5,327.7	0.00	0.00	0.00
16,500.0	90.00	269.84	10,829.0	340.3	-5,428.7	5,427.7	0.00	0.00	0.00
16,600.0	90.00	269.84	10,829.0	340.1	-5,528.7	5,527.7	0.00	0.00	0.00
16,700.0	90.00	269.84	10,829.0	339.8	-5,628.7	5,627.7	0.00	0.00	0.00
16,800.0	90.00	269.84	10,829.0	339.5	-5,728.7	5,727.7	0.00	0.00	0.00
16,900.0	90.00	269.84	10,829.0	339.2	-5,828.7	5,827.7	0.00	0.00	0.00
17,000.0	90.00	269.84	10,829.0	338.9	-5,928.7	5,927.7	0.00	0.00	0.00
17,100.0	90.00	269.84	10,829.0	338.7	-6,028.7	6,027.7	0.00	0.00	0.00
17,200.0	90.00	269.84	10,829.0	338.4	-6,128.7	6,127.7	0.00	0.00	0.00
17,300.0	90.00	269.84	10,829.0	338.1	-6,228.7	6,227.7	0.00	0.00	0.00
17,400.0	90.00	269.84	10,829.0	337.8	-6,328.7	6,327.7	0.00	0.00	0.00
17,500.0	90.00	269.84	10,829.0	337.6	-6,428.7	6,427.7	0.00	0.00	0.00
17,600.0	90.00	269.84	10,829.0	337.3	-6,528.7	6,527.7	0.00	0.00	0.00
17,700.0	90.00	269.84	10,829.0	337.0	-6,628.7	6,627.7	0.00	0.00	0.00
17,800.0	90.00	269.84	10,829.0	336.7	-6,728.7	6,727.7	0.00	0.00	0.00
17,900.0	90.00	269.84	10,829.0	336.4	-6,828.7	6,827.7	0.00	0.00	0.00
18,000.0	90.00	269.84	10,829.0	336.2	-6,928.7	6,927.7	0.00	0.00	0.00
18,100.0	90.00	269.84	10,829.0	335.9	-7,028.7	7,027.7	0.00	0.00	0.00

XTO Energy

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well Big Eddy Unit 28 QR 106H
Company:	Long Lead_Well Planning	TVD Reference:	RKB (+32) @ 3445.0usft
Project:	BEU 28 QR	MD Reference:	RKB (+32) @ 3445.0usft
Site:	Big Eddy Unit 28 QR 106H	North Reference:	Grid
Well:	Big Eddy Unit 28 QR 106H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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)
18,200.0	90.00	269.84	10,829.0	335.6	-7,128.7	7,127.7	0.00	0.00	0.00
18,300.0	90.00	269.84	10,829.0	335.3	-7,228.7	7,227.7	0.00	0.00	0.00
18,400.0	90.00	269.84	10,829.0	335.1	-7,328.7	7,327.7	0.00	0.00	0.00
18,500.0	90.00	269.84	10,829.0	334.8	-7,428.7	7,427.7	0.00	0.00	0.00
18,600.0	90.00	269.84	10,829.0	334.5	-7,528.7	7,527.7	0.00	0.00	0.00
18,700.0	90.00	269.84	10,829.0	334.2	-7,628.7	7,627.7	0.00	0.00	0.00
18,800.0	90.00	269.84	10,829.0	334.0	-7,728.7	7,727.7	0.00	0.00	0.00
18,900.0	90.00	269.84	10,829.0	333.7	-7,828.7	7,827.7	0.00	0.00	0.00
19,000.0	90.00	269.84	10,829.0	333.4	-7,928.7	7,927.7	0.00	0.00	0.00
19,100.0	90.00	269.84	10,829.0	333.1	-8,028.7	8,027.7	0.00	0.00	0.00
19,200.0	90.00	269.84	10,829.0	332.8	-8,128.7	8,127.7	0.00	0.00	0.00
19,300.0	90.00	269.84	10,829.0	332.6	-8,228.7	8,227.7	0.00	0.00	0.00
19,400.0	90.00	269.84	10,829.0	332.3	-8,328.7	8,327.7	0.00	0.00	0.00
19,500.0	90.00	269.84	10,829.0	332.0	-8,428.7	8,427.7	0.00	0.00	0.00
19,600.0	90.00	269.84	10,829.0	331.7	-8,528.7	8,527.7	0.00	0.00	0.00
19,700.0	90.00	269.84	10,829.0	331.5	-8,628.7	8,627.7	0.00	0.00	0.00
19,800.0	90.00	269.84	10,829.0	331.2	-8,728.7	8,727.7	0.00	0.00	0.00
19,900.0	90.00	269.84	10,829.0	330.9	-8,828.7	8,827.7	0.00	0.00	0.00
20,000.0	90.00	269.84	10,829.0	330.6	-8,928.7	8,927.7	0.00	0.00	0.00
20,100.0	90.00	269.84	10,829.0	330.3	-9,028.7	9,027.7	0.00	0.00	0.00
20,200.0	90.00	269.84	10,829.0	330.1	-9,128.7	9,127.7	0.00	0.00	0.00
20,300.0	90.00	269.84	10,829.0	329.8	-9,228.7	9,227.7	0.00	0.00	0.00
20,400.0	90.00	269.84	10,829.0	329.5	-9,328.7	9,327.7	0.00	0.00	0.00
20,500.0	90.00	269.84	10,829.0	329.2	-9,428.7	9,427.7	0.00	0.00	0.00
20,600.0	90.00	269.84	10,829.0	329.0	-9,528.7	9,527.7	0.00	0.00	0.00
20,700.0	90.00	269.84	10,829.0	328.7	-9,628.7	9,627.7	0.00	0.00	0.00
20,800.0	90.00	269.84	10,829.0	328.4	-9,728.7	9,727.7	0.00	0.00	0.00
20,900.0	90.00	269.84	10,829.0	328.1	-9,828.7	9,827.7	0.00	0.00	0.00
21,000.0	90.00	269.84	10,829.0	327.8	-9,928.7	9,927.7	0.00	0.00	0.00
21,100.0	90.00	269.84	10,829.0	327.6	-10,028.7	10,027.7	0.00	0.00	0.00
21,200.0	90.00	269.84	10,829.0	327.3	-10,128.7	10,127.7	0.00	0.00	0.00
21,300.0	90.00	269.84	10,829.0	327.0	-10,228.7	10,227.7	0.00	0.00	0.00
21,400.0	90.00	269.84	10,829.0	326.7	-10,328.7	10,327.7	0.00	0.00	0.00
21,500.0	90.00	269.84	10,829.0	326.5	-10,428.7	10,427.7	0.00	0.00	0.00
21,600.0	90.00	269.84	10,829.0	326.2	-10,528.7	10,527.7	0.00	0.00	0.00
21,700.0	90.00	269.84	10,829.0	325.9	-10,628.7	10,627.7	0.00	0.00	0.00
21,800.0	90.00	269.84	10,829.0	325.6	-10,728.7	10,727.7	0.00	0.00	0.00
21,900.0	90.00	269.84	10,829.0	325.3	-10,828.7	10,827.7	0.00	0.00	0.00
22,000.0	90.00	269.84	10,829.0	325.1	-10,928.7	10,927.7	0.00	0.00	0.00
22,100.0	90.00	269.84	10,829.0	324.8	-11,028.7	11,027.7	0.00	0.00	0.00
22,200.0	90.00	269.84	10,829.0	324.5	-11,128.7	11,127.7	0.00	0.00	0.00
22,300.0	90.00	269.84	10,829.0	324.2	-11,228.7	11,227.7	0.00	0.00	0.00
22,400.0	90.00	269.84	10,829.0	324.0	-11,328.7	11,327.7	0.00	0.00	0.00
22,500.0	90.00	269.84	10,829.0	323.7	-11,428.7	11,427.7	0.00	0.00	0.00
22,600.0	90.00	269.84	10,829.0	323.4	-11,528.7	11,527.7	0.00	0.00	0.00
22,700.0	90.00	269.84	10,829.0	323.1	-11,628.7	11,627.7	0.00	0.00	0.00
22,800.0	90.00	269.84	10,829.0	322.9	-11,728.7	11,727.7	0.00	0.00	0.00
22,900.0	90.00	269.84	10,829.0	322.6	-11,828.7	11,827.7	0.00	0.00	0.00
23,000.0	90.00	269.84	10,829.0	322.3	-11,928.7	11,927.7	0.00	0.00	0.00
23,100.0	90.00	269.84	10,829.0	322.0	-12,028.7	12,027.7	0.00	0.00	0.00
23,200.0	90.00	269.84	10,829.0	321.7	-12,128.7	12,127.7	0.00	0.00	0.00
23,300.0	90.00	269.84	10,829.0	321.5	-12,228.7	12,227.7	0.00	0.00	0.00
23,400.0	90.00	269.84	10,829.0	321.2	-12,328.7	12,327.7	0.00	0.00	0.00
23,500.0	90.00	269.84	10,829.0	320.9	-12,428.7	12,427.7	0.00	0.00	0.00

XTO Energy

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well Big Eddy Unit 28 QR 106H
Company:	Long Lead_Well Planning	TVD Reference:	RKB (+32) @ 3445.0usft
Project:	BEU 28 QR	MD Reference:	RKB (+32) @ 3445.0usft
Site:	Big Eddy Unit 28 QR 106H	North Reference:	Grid
Well:	Big Eddy Unit 28 QR 106H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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)	
23,600.0	90.00	269.84	10,829.0	320.6	-12,528.7	12,527.7	0.00	0.00	0.00	
23,700.0	90.00	269.84	10,829.0	320.4	-12,628.7	12,627.7	0.00	0.00	0.00	
23,800.0	90.00	269.84	10,829.0	320.1	-12,728.7	12,727.7	0.00	0.00	0.00	
23,900.0	90.00	269.84	10,829.0	319.8	-12,828.7	12,827.7	0.00	0.00	0.00	
24,000.0	90.00	269.84	10,829.0	319.5	-12,928.7	12,927.7	0.00	0.00	0.00	
24,100.0	90.00	269.84	10,829.0	319.2	-13,028.7	13,027.7	0.00	0.00	0.00	
24,200.0	90.00	269.84	10,829.0	319.0	-13,128.7	13,127.7	0.00	0.00	0.00	
24,300.0	90.00	269.84	10,829.0	318.7	-13,228.7	13,227.7	0.00	0.00	0.00	
24,400.0	90.00	269.84	10,829.0	318.4	-13,328.7	13,327.7	0.00	0.00	0.00	
24,500.0	90.00	269.84	10,829.0	318.1	-13,428.7	13,427.7	0.00	0.00	0.00	
24,600.0	90.00	269.84	10,829.0	317.9	-13,528.7	13,527.7	0.00	0.00	0.00	
24,700.0	90.00	269.84	10,829.0	317.6	-13,628.7	13,627.7	0.00	0.00	0.00	
24,800.0	90.00	269.84	10,829.0	317.3	-13,728.7	13,727.7	0.00	0.00	0.00	
24,900.0	90.00	269.84	10,829.0	317.0	-13,828.7	13,827.7	0.00	0.00	0.00	
25,000.0	90.00	269.84	10,829.0	316.7	-13,928.7	13,927.7	0.00	0.00	0.00	
25,100.0	90.00	269.84	10,829.0	316.5	-14,028.7	14,027.7	0.00	0.00	0.00	
25,200.0	90.00	269.84	10,829.0	316.2	-14,128.7	14,127.7	0.00	0.00	0.00	
25,300.0	90.00	269.84	10,829.0	315.9	-14,228.7	14,227.7	0.00	0.00	0.00	
25,400.0	90.00	269.84	10,829.0	315.6	-14,328.7	14,327.7	0.00	0.00	0.00	
25,500.0	90.00	269.84	10,829.0	315.4	-14,428.7	14,427.7	0.00	0.00	0.00	
25,600.0	90.00	269.84	10,829.0	315.1	-14,528.7	14,527.7	0.00	0.00	0.00	
25,700.0	90.00	269.84	10,829.0	314.8	-14,628.7	14,627.7	0.00	0.00	0.00	
25,800.0	90.00	269.84	10,829.0	314.5	-14,728.7	14,727.7	0.00	0.00	0.00	
25,900.0	90.00	269.84	10,829.0	314.2	-14,828.7	14,827.7	0.00	0.00	0.00	
26,000.0	90.00	269.84	10,829.0	314.0	-14,928.7	14,927.7	0.00	0.00	0.00	
26,097.9	90.00	269.84	10,829.0	313.7	-15,026.6	15,025.7	0.00	0.00	0.00	
LTP_106H										
26,100.0	90.00	269.84	10,829.0	313.7	-15,028.7	15,027.7	0.00	0.00	0.00	
26,147.8	90.00	269.84	10,829.0	313.6	-15,076.5	15,075.6	0.00	0.00	0.00	
BHL_106H										

Design Targets										
Target Name										
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- Shape										
SHL_106H	0.00	0.00	0.0	0.0	0.0	529,658.20	608,415.90	32° 27' 20.348 N		103° 58' 54.661 W
- plan hits target center										
- Point										
LTP_106H	0.00	0.00	10,829.0	313.7	-15,026.6	529,971.90	593,389.30	32° 27' 23.908 N		104° 1' 50.026 W
- plan hits target center										
- Point										
FTP_106H	0.00	0.00	10,829.0	354.7	-250.7	530,012.90	608,165.20	32° 27' 23.866 N		103° 58' 57.573 W
- plan hits target center										
- Point										
BHL_106H	0.00	0.00	10,829.0	313.6	-15,076.5	529,971.80	593,339.40	32° 27' 23.908 N		104° 1' 50.609 W
- plan hits target center										
- Point										



XTO Energy

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well Big Eddy Unit 28 QR 106H
Company:	Long Lead_Well Planning	TVD Reference:	RKB (+32) @ 3445.0usft
Project:	BEU 28 QR	MD Reference:	RKB (+32) @ 3445.0usft
Site:	Big Eddy Unit 28 QR 106H	North Reference:	Grid
Well:	Big Eddy Unit 28 QR 106H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	367.0	367.0	RUSLTER			
	577.0	577.0	SALADO			
	2,924.0	2,924.0	SALT BASE			
	3,199.2	3,199.0	DELAWARE			
	4,161.5	4,131.0	CHERRY CANYON			
	5,375.6	5,292.0	BRUSHY CANYON			
	6,710.2	6,626.0	BASAL BRUSHY CANYON			
	7,008.2	6,924.0	BONE SPRING LIME			
	7,139.2	7,055.0	AVALON UPPER			
	7,534.2	7,450.0	AVALON MIDDLE CARB			
	7,625.2	7,541.0	AVALON LOWER			
	7,760.2	7,676.0	1ST BONE SPRING LIME			
	8,064.2	7,980.0	1ST BONE SPRING SAND			
	8,257.2	8,173.0	2ND BONE SPRING SHALE			
	8,455.2	8,371.0	2ND BONE SPRING LIME			
	8,518.2	8,434.0	2ND BONE SPRING A PRIME SAND			
	8,766.2	8,682.0	2ND BONE SPRING A&B SAND			
	9,108.2	9,024.0	3RD BONE SPRING LIME			
	9,473.2	9,389.0	HARKEY/3RD BONE SPRING SHALE			
	9,937.2	9,853.0	3RD BONE SPRING SAND			
	10,302.6	10,218.0	WOLFCAMP X & Y			
	10,476.2	10,385.0	WOLFCAMP A/B/C/D/E			
	11,322.0	10,829.0	LANDING POINT			



## 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.

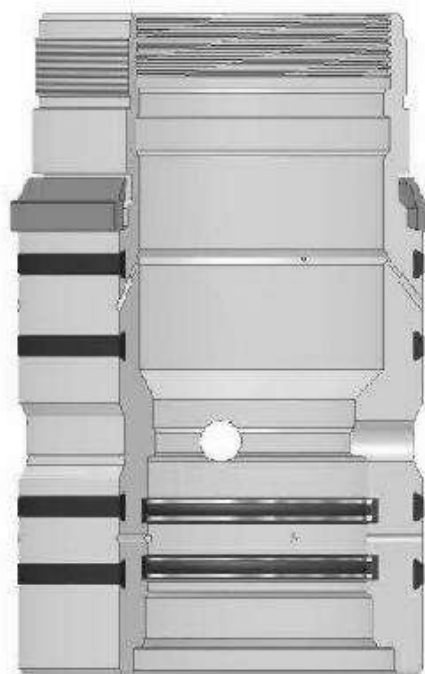
### 1. Cement Program

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

### 2. Offline Cementing Procedure

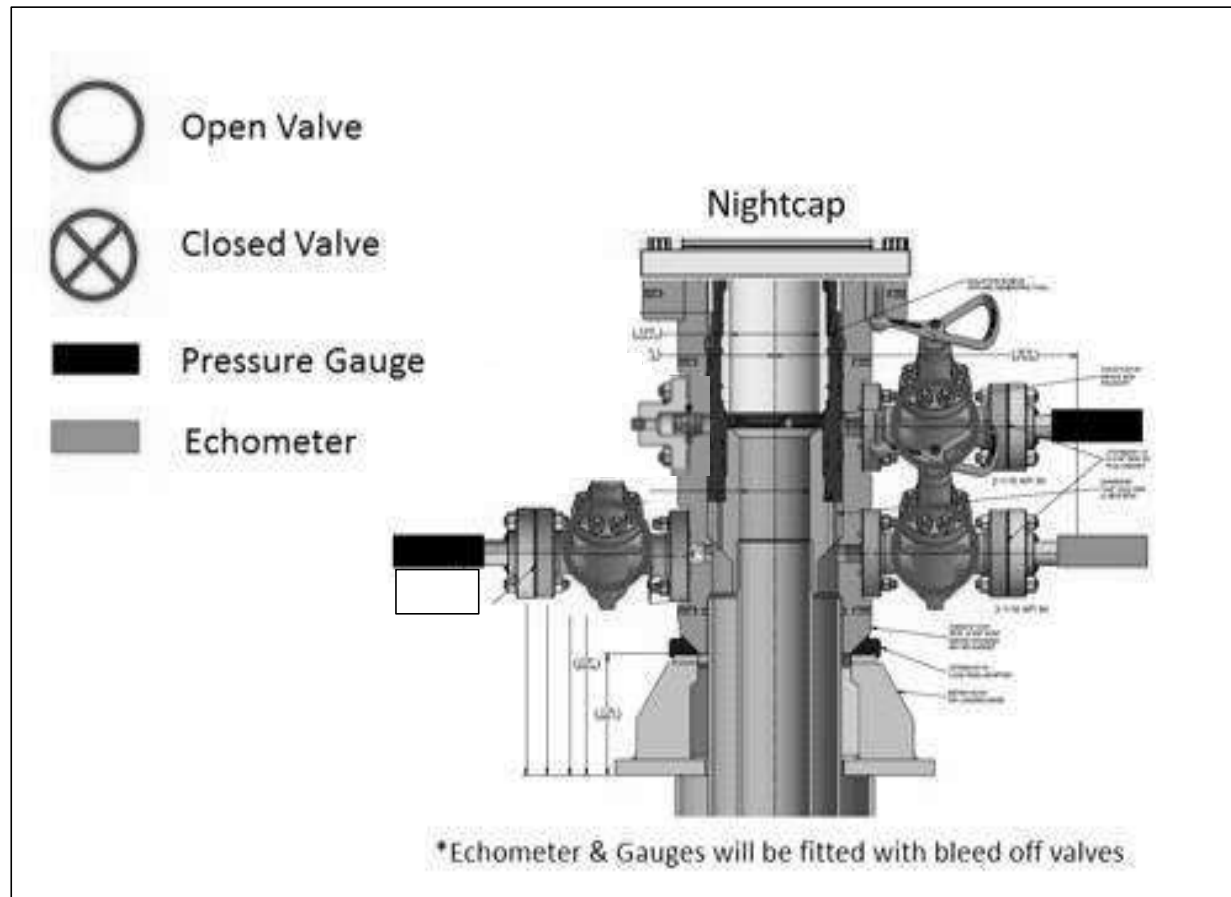
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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 nipped 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.



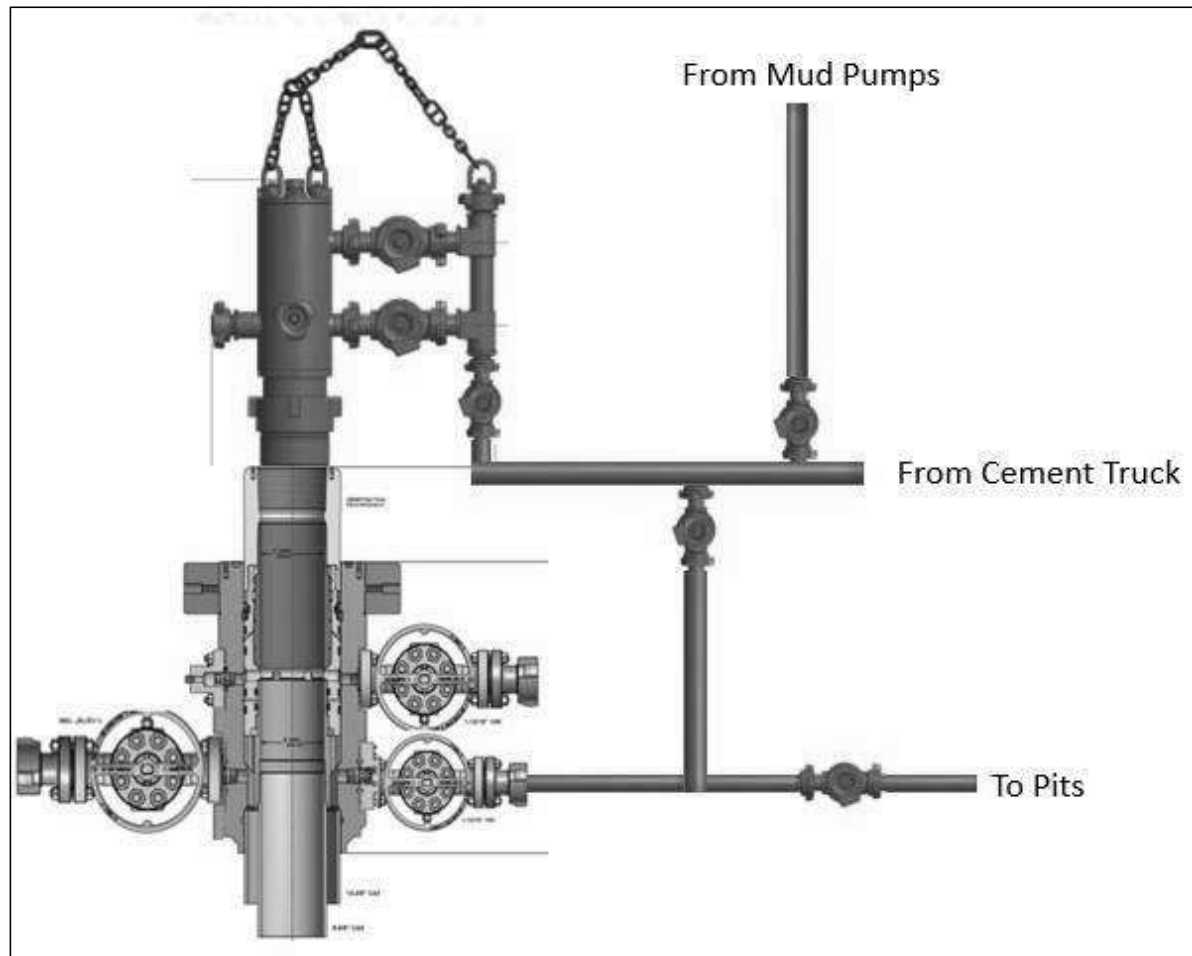
Annular packoff with both external and internal seals

### 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 nipping 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

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

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.

**BLACK GOLD®**

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WEB: www.gates.com/oilandgas

NEW CHOKE HOSE  
INSTALLED 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:** NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA  
**CUSTOMER P.O.#:** 15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)  
**CUSTOMER P/N:** 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 #:** 529480  
**QUANTITY:** 1  
**SERIAL #:** 74621 H3-012524-1

SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_

QUALITY ASSURANCE

DATE: \_\_\_\_\_

1/25/2024





H3-15/16

1/25/2024 11:48:06 AM

# TEST REPORT

**CUSTOMER**

Company: Nabors Industries Inc.

Production description: 74621/66-1531

Sales order #: 529480

Customer reference: FG1213

## TEST INFORMATION

Test procedure: GTS-04-053

Test pressure: 15000.00 psi

Test pressure hold: 3600.00 sec

Work pressure: 10000.00 psi

Work pressure hold: 900.00 sec

Length difference: 0.00 %

Length difference: 0.00 inch

Visual check:

Pressure test result: PASS

Length measurement result:

## TEST OBJECT

Serial number: H3-012524-1

Lot number:

Description: 74621/66-1531

Hose ID: 3" 16C CK

Part number:

Fitting 1: 3.0 x 4-1/16 10K

Part number:

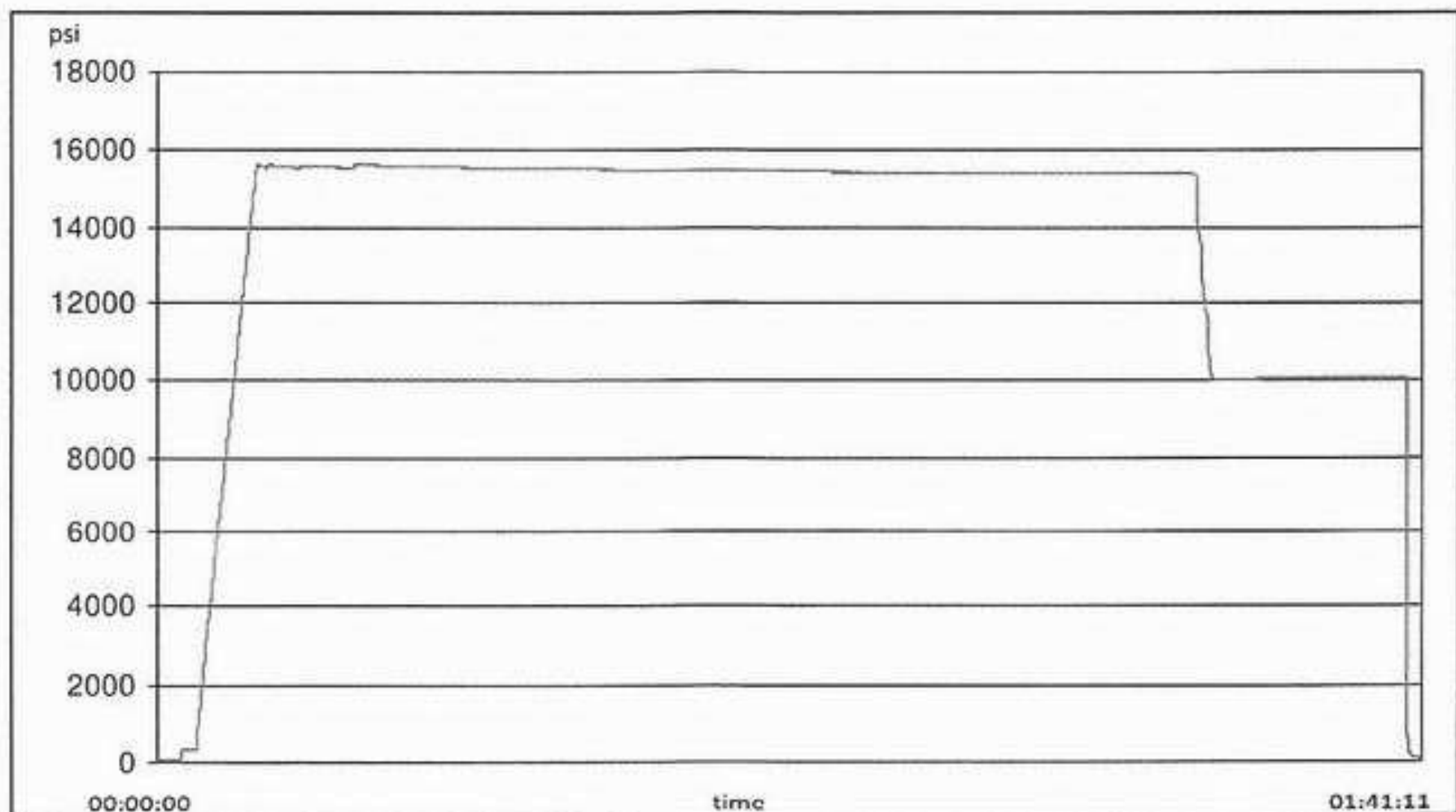
**Description:**

Fitting 2: 3.0 x 4-1/16 10K

Part number:

**Description:**

Length: 45 feet







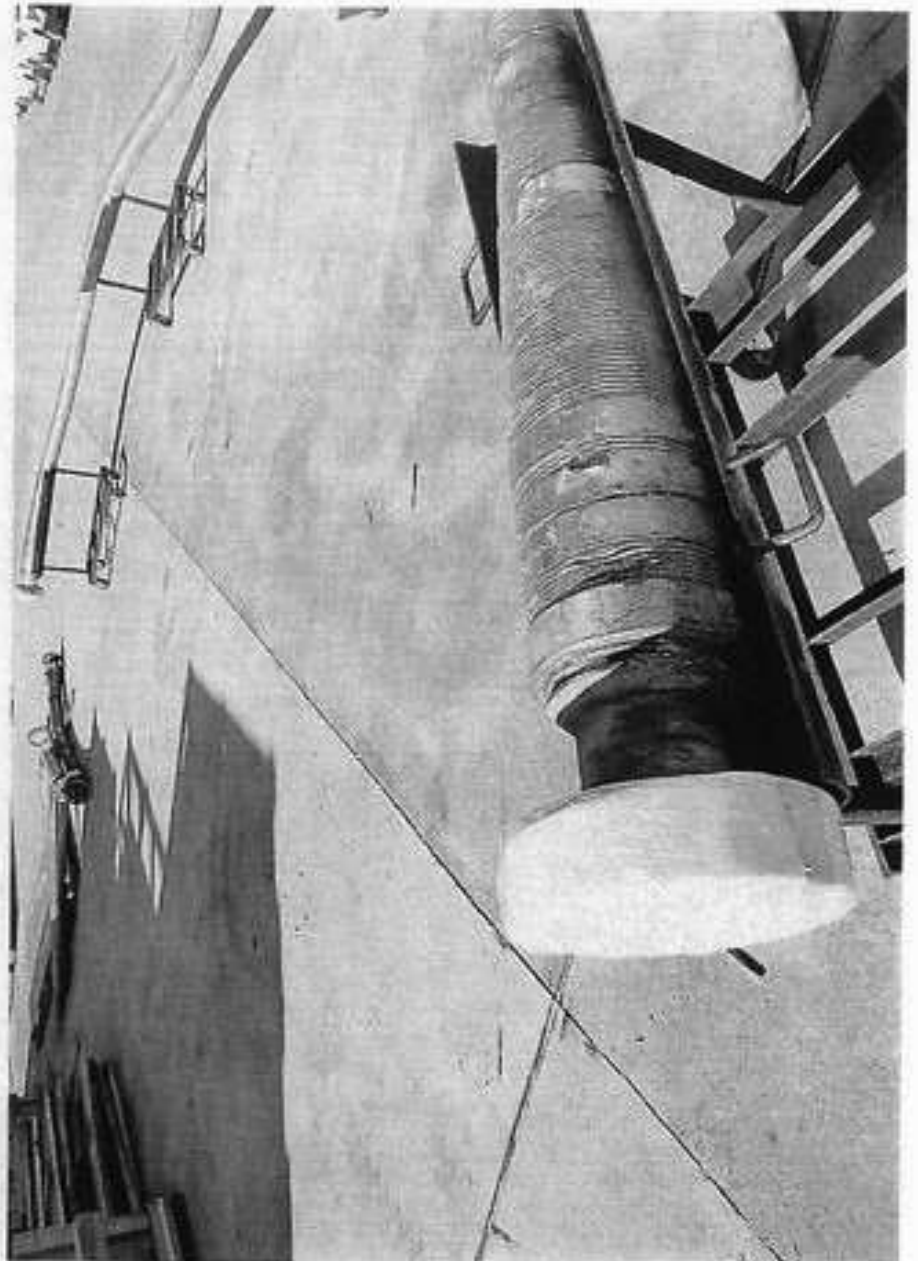
H3-15/16  
1/25/2024 11:48:06 AM

TEST REPORT

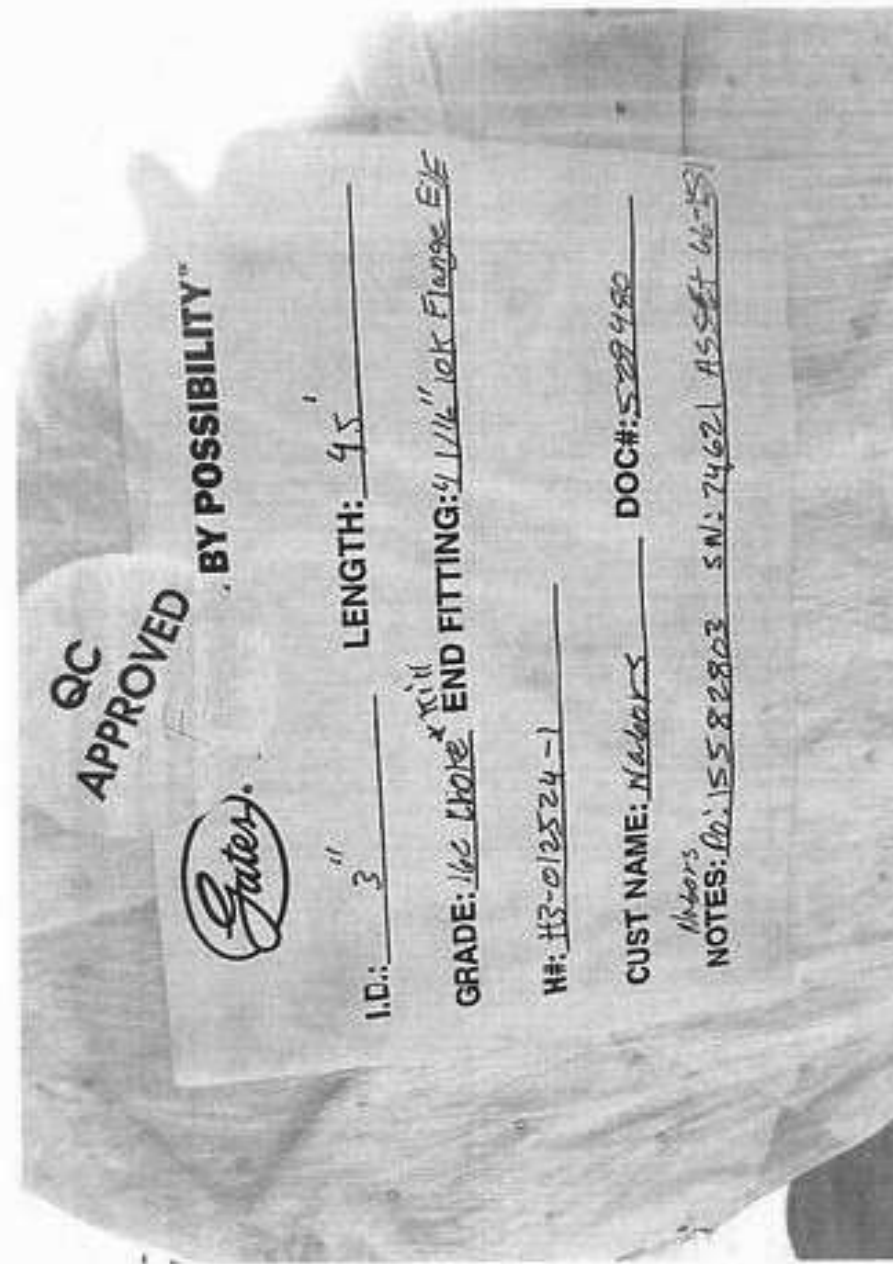
GAUGE TRACEABILITY

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







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 nipped 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.



**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.

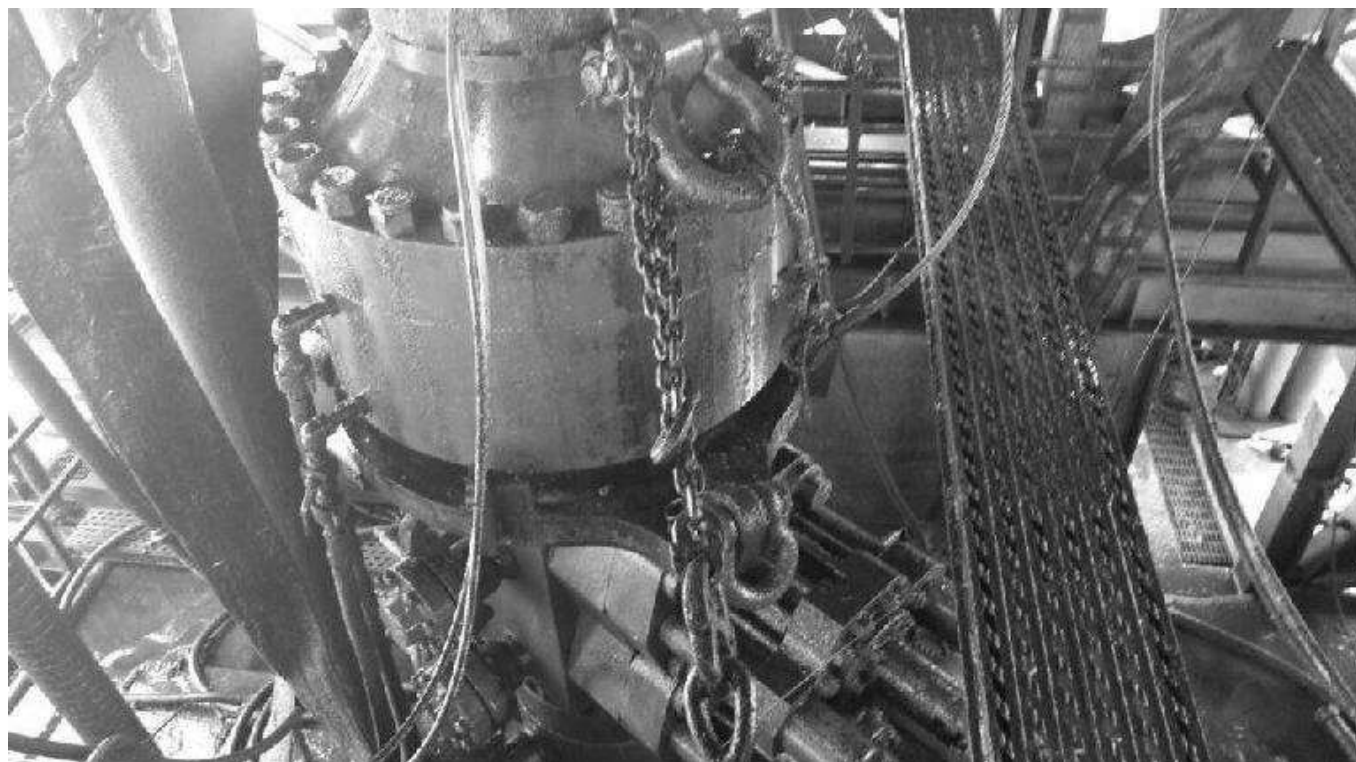


Figure 1: Winch System attached to BOP Stack



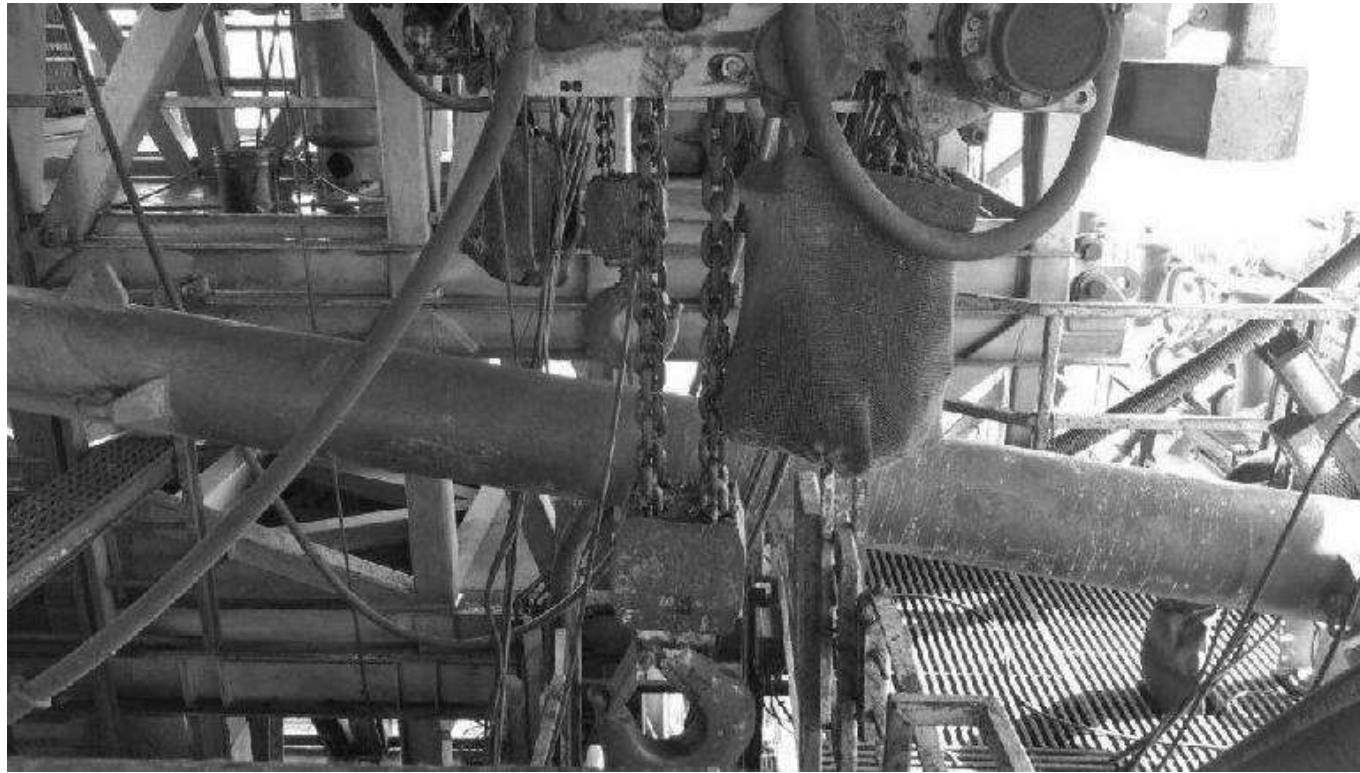


Figure 2: BOP Winch System

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 3170 recognizes 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.

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API STANDARD 53

Table C.4—Initial Pressure Testing, Surface BOP Stacks

Component to be Pressure Tested	Pressure Test—Low Pressure <sup>a,c</sup> psig (MPa)	Pressure Test—High Pressure <sup>a,c</sup>	
		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>b,d</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 lower.	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

<sup>a</sup> Pressure test evaluation periods shall be a minimum of five minutes.

No visible leaks.

The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

<sup>b</sup> Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program.

<sup>c</sup> For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

<sup>d</sup> For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually.

<sup>e</sup> Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.

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.

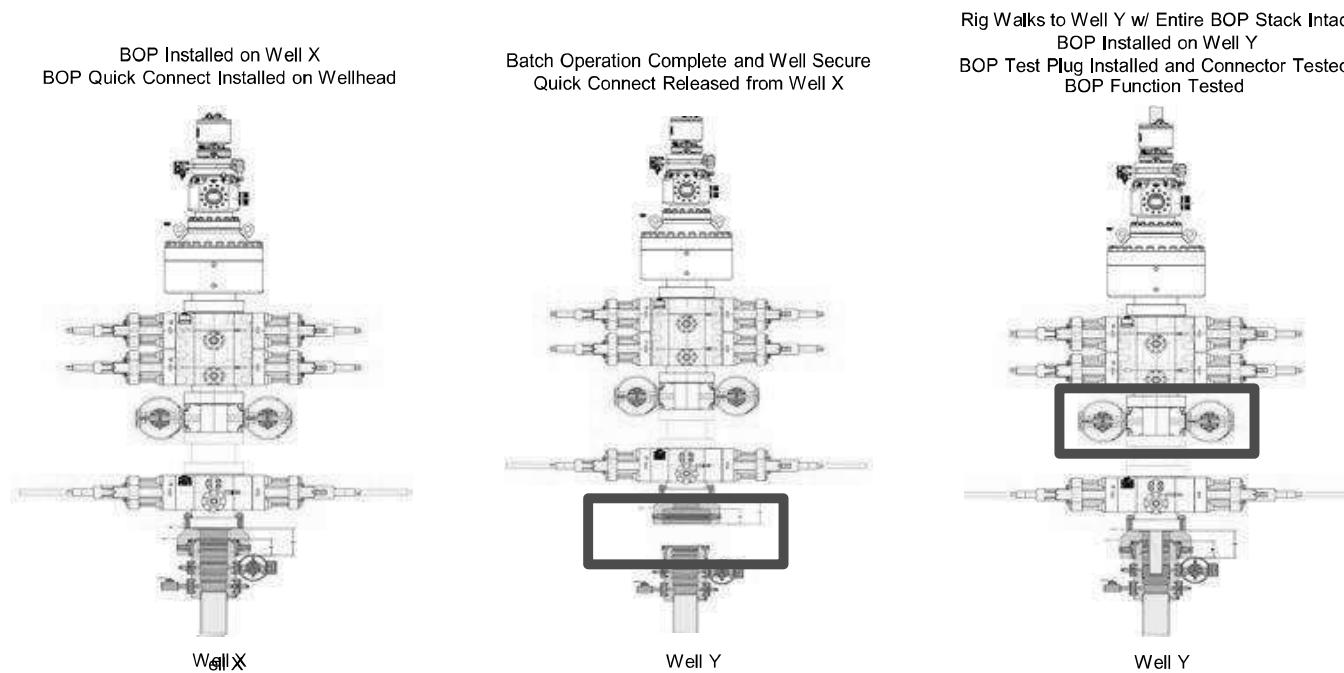
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often 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**

1. 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**

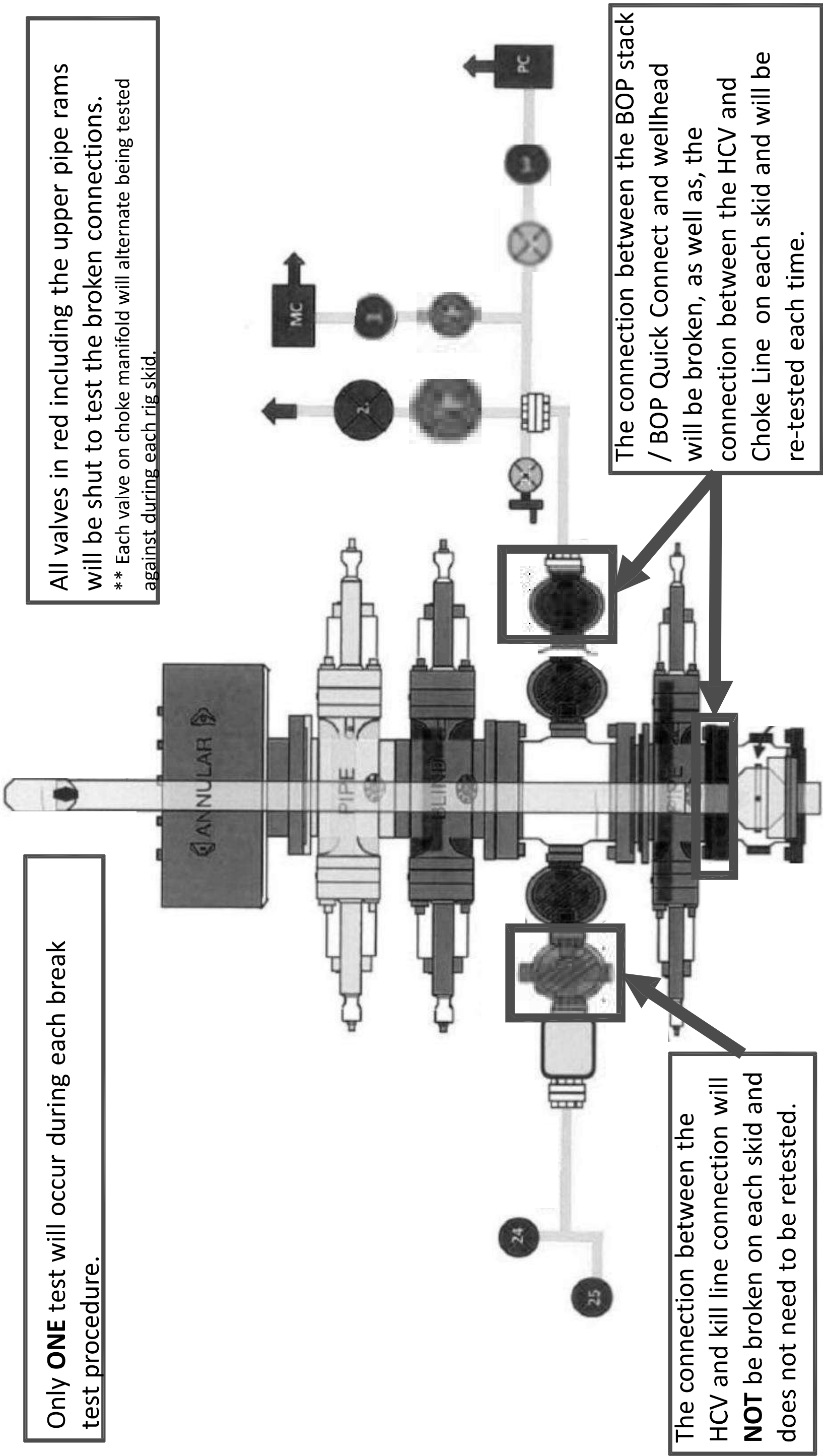
A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required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





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

CONDITIONS  
  
Action 511028

CONDITIONS

Operator:  XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID:  373075
	Action Number:  511028
	Action Type:  [C-103] NOI General Sundry (C-103X)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	None	10/1/2025