

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

Well Name: POKER LAKE UNIT 29 BS Well Location: T25S / R31E / SEC 29 /

SENW / 32.101863 / -103.802394

County or Parish/State: EDDY /

Allottee or Tribe Name:

NN

Well Number: 209H Type of Well: OIL WELL

Unit or CA Name: POKER LAKE UNIT Unit or CA Number:

NMNM71016X

US Well Number: Operator: XTO PERMIAN OPERATING

LLC

#### **Notice of Intent**

Lease Number: NMNM0157756A

Sundry ID: 2829929

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/03/2025

Time Sundry Submitted: 12:48

Date proposed operation will begin: 01/24/2025

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include KOP, FTP, LTP, BHL, Proposed total Depth. There is no new surface disturbance. FROM: TO: KOP: 2435' FNL & 2011' FWL OF SECTION 29-T25S-R31E 2038' FNL & 1797' FWL OF SECTION 29-T25S-R31E FTP: 2435' FNL & 2090' FWL OF SECTION 29-T25S-R31E 2552' FSL & 1800' FWL OF SECTION 29-T25S-R31E LTP: 100' FSL & 2090' FWL OF SECTION 32-T25S-R31E 100' FSL & 1800' FWL OF SECTION 32-T25S-R31E BHL: 50' FSL & 2090' FWL OF SECTION 32-T25S-R31E 50' FSL & 1800' FWL OF SECTION 32-T25S-R31E The proposed total depth is changing from 18339' MD; 9851' TVD to 18382' MD; 10134' TVD. See attached Drilling Plan for updated cement and casing program. A saturated salt brine will be utilized while drilling through the salt formations.

#### **NOI Attachments**

#### **Procedure Description**

Poker Lake Unit 29 BS 209H Sundry Documents w plan view tapered 3.7.25 20250310090014.pdf

Received by OCD: WINNERS: PURERT RAME UNIT 29 BS

Well Location: T25S / R31E / SEC 29 / SENW / 32.101863 / -103.802394

County or Parish/State: EDDY /

Page 2 of 52

Well Number: 209H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0157756A

Unit or CA Name: POKER LAKE UNIT

**Unit or CA Number:** NMNM71016X

**US Well Number:** 

Operator: XTO PERMIAN OPERATING

LLC

## **Conditions of Approval**

#### Additional

Poker\_Lake\_Unit\_29\_BS\_209H\_COA\_20250314112703.pdf

## **Operator**

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SAMANTHA WEIS Signed on: MAR 10, 2025 09:01 AM

Name: XTO PERMIAN OPERATING LLC

Title: Permitting Advisor

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING State: TX

Phone: (832) 625-7361

Email address: SAMANTHA.R.BARTNIK@EXXONMOBIL.COM

#### **Field**

Representative Name:

**Street Address:** 

City: State: Zip:

Phone:

**Email address:** 

## **BLM Point of Contact**

**BLM POC Title:** Petroleum Engineer **BLM POC Name: CHRISTOPHER WALLS** 

**BLM POC Phone:** 5752342234 BLM POC Email Address: cwalls@blm.gov

Disposition: Approved Disposition Date: 03/14/2025

Signature: Chris Walls

Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

Di	EPARTMENT OF THE INTER	HOR	EX	bires: October 31, 2021				
BU	REAU OF LAND MANAGEM	MENT	5. Lease Serial No. NMNM0157756A					
SUNDRY	NOTICES AND REPORTS	ON WELLS	6. If Indian, Allottee or Tribe	6. If Indian, Allottee or Tribe Name				
	form for proposals to dril . Use Form 3160-3 (APD) fo							
SUBMIT II	N TRIPLICATE - Other instructions	on page 2	7. If Unit of CA/Agreement, 1					
1. Type of Well			POKER LAKE UNIT/NMNM71016X  8. Well Name and No.	<b>\</b>				
✓ Oil Well Gas	Well Other		POKER LAKE UNIT 29 BS/209H					
2. Name of Operator XTO PERMIA	N OPERATING LLC		9. API Well No.					
3a. Address 6401 HOLIDAY HILL	TOTAL DED C O, MIDEL MAD,	one No. (include area code 683-2277	10. Field and Pool or Explora WILDCAT BIG SINK/BONE SPRIN	•				
4. Location of Well (Footage, Sec., T SEC 29/T25S/R31E/NMP			11. Country or Parish, State EDDY/NM					
12. CF	HECK THE APPROPRIATE BOX(ES)	TO INDICATE NATURE	OF NOTICE, REPORT OR OT	HER DATA				
TYPE OF SUBMISSION		TYI	PE OF ACTION					
	Acidize	Deepen	Production (Start/Resume)	Water Shut-Off				
✓ Notice of Intent	Alter Casing	Hydraulic Fracturing	Reclamation	Well Integrity				
Cubacquent Deport	Casing Repair	New Construction	Recomplete	Other				
Subsequent Report	✓ Change Plans	Plug and Abandon	Temporarily Abandon					
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal					
is ready for final inspection.)  XTO Permian Operating, LL	C. respectfully requests approval to	o make the following cha		the operator has detennined that the site changes to include KOP,				
	/L OF SECTION 29-T25S-R31E 20 'L OF SECTION 29-T25S-R31E 25:							
	OF SECTION 32-T25S-R31E 100'							
	OF SECTION 32-T25S-R31E 50' F							
The proposed total depth is	changing from 18339 MD; 9851 TV	/D to 18382 MD; 10134	TVD.					
Continued on page 3 addition	nal information							
14. I hereby certify that the foregoing	is true and correct. Name (Printed/Typ							
SAMANTHA WEIS / Ph: (832) 62	<u>!</u> 5-7361	Permitting Title	Advisor					
Signature (Electronic Submiss	sion)	Date	03/10/2	025				
	THE SPACE FOR	FEDERAL OR ST	ATE OFICE USE					
Approved by								
CHRISTOPHER WALLS / Ph: (5	75) 234-2234 / Approved	Petro Title	bleum Engineer	03/14/2025 Date				
	ached. Approval of this notice does not requitable title to those rights in the su onduct operations thereon.		RLSBAD					

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.

(Instructions on page 2)

#### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law 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, are either shown below, will be issued by or may be obtained from the local Federal office.

#### SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. 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 the 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., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-4.

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

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

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 Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

## **Additional Information**

#### **Additional Remarks**

See attached Drilling Plan for updated cement and casing program.

A saturated salt brine will be utilized while drilling through the salt formations.

### **Location of Well**

0. SHL: SENW / 2435 FNL / 2011 FWL / TWSP: 25S / RANGE: 31E / SECTION: 29 / LAT: 32.101863 / LONG: -103.802394 ( TVD: 0 feet, MD: 0 feet ) PPP: SENW / 2435 FNL / 2090 FWL / TWSP: 25S / RANGE: 31E / SECTION: 29 / LAT: 32.101863 / LONG: -103.802139 ( TVD: 9851 feet, MD: 10300 feet ) BHL: SESW / 50 FSL / 2090 FWL / TWSP: 25S / RANGE: 31E / SECTION: 32 / LAT: 32.079493 / LONG: -103.802231 ( TVD: 9851 feet, MD: 18339 feet )

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** XTO

LEASE NO.: NMLC061634B

**LOCATION:** Sec. 29, T.25 S, R 31 E

**COUNTY:** Eddy County, New Mexico

WELL NAME & NO.: Poker Lake Unit 29 BS 209H

**SURFACE HOLE FOOTAGE:** 2435'/N & 2011'/W **BOTTOM HOLE FOOTAGE:** 50'/S & 1800'/W

COA

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

#### A. HYDROGEN SULFIDE

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

#### **B. CASING**

- 1. The 9-5/8 inch surface casing shall be set at approximately 1020 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping 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 <u>500 pounds compressive strength</u>, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is: Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.
  - a. First stage: Operator will cement with intent to reach the top of the Brushy Canyon at 6440'.
  - 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 <u>High Cave/Karst Areas</u> 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.

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

## **Casing Clearance**

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

## **GENERAL REQUIREMENTS**

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

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

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

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **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 3/14/2025** 575-234-5998 / zstevens@blm.gov

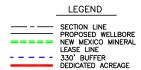
<u>C-10</u>	2				~ ***		ew Mexico					Revised July 9, 2024
Submit El-	ectronically		En				ral Resources	_	nent	☐ Initial Submitt		Initial Submittal
	Permitting			O	IL CON	SERVA	TION DIVISION			Submittal	_	Amended Report
										Type:		As Drilled
											10	Tio Diffice
					WELL LO		INFORMATION	J				
API Nu 30-0			Pool Code	06654		Pool Nam	e WILDCAT BIG	SINK; BON	E SPRING			
Property	y Code		Property Name	POK	ER LAKE UI	NIT 29 BS				\	Vell Nu 209H	mber
ORGID 3730			Operator Nam	е хто	PERMIAN C	PERATIN	IG, LLC.			(	Ground 3,362	Level Elevation
Surface	Owner:	State 🗌 F	ee 🗌 Tribal 🛚	] Federal			Mineral Owner: D	State 🔲	Fee 🗌 Tribal	l 🛛 Feder	al	
						Surface	Location					
UL F	Section 29	Township 25 S		Lot	Ft. from N, 2,43	/S :5' FNL	Ft. from E/W 2,011' FWL	Latitude 32.101		ongitude -103.8023	94	County EDDY
					_		le Location					
UL N	Section 32	Township 25 S		Lot	Ft. from N, 50' F		Ft. from E/W 1,800' FWL	Latitude 32.079		ngitude -103.8031	67	County EDDY
Dedicat	ed Acres	Infill or D	efining Well	Definir	ng Well API		Overlapping Spacing	Unit (Y/N)	Consolidat	tion Code		
240		DEFI	NING				Υ		U			
Order N	lumbers.						Well setbacks are un	der Common	Ownership:	X Yes □	No	
					I	Kick Off	Point (KOP)					
UL F	Section 29	Township 25 S		Lot	Ft. from N	/S B' FNL	Ft. from E/W 1,797' FWL	Latitude 32.102		ngitude -103.8030	76	County EDDY
		200	312				Point (FTP)	02.102		100.0000		
UL	Section	Townshi		Lot	Ft. from N	/S	Ft. from E/W	Latitude		ongitude	10.4	County
K	29	25 S	31 E			2' FSL	1,800' FWL	32.100	984 -	-103.8030	164	EDDY
UL N	Section 32	Township 25 S		Lot	Ft. from No.	/S	Point (LTP)  Ft. from E/W  1,800' FWL	Latitude 32.079		ongitude -103.8031	67	County
	32	25.5	316		100 1	roL	1,000 FVVL	32.073	023	-103.0031		EDDT
Unitize	d Area or Are	a of Unifor	m Interest	Spacin	ng Unit Type	✓ Horizon	tal  Vertical	G	round Floor E	Elevation:		
		NMNI	M-071016X								3,302	
OPEI	RATOR C	ERTIFIC	'ATIONS				SURVEYOR	CERTIFIC	CATIONS			
OI LI	arrone	LICITI IC	21110110									
best of r	ny knowledge	and belief,	ion contained he and that this or	ganization	either owns a	working	I hereby certify the	rveys made b	y me or unde			
location	ı or has a rigi	ht to drill th	rest in the land i is well at this lo	cation purs	suant to a cont	ract with	is true and correct I, TIM C. PAPPAS, NEV 21209, DO HEREBY CI	W MEXICO PROF	ESSIONAL SURV	EYOR NO.		
			orking interest, ing order hereto				ACTUAL SURVEY ON THE WERE PERFORMED BY THAT I AM RESPONSIB	HE GROUND UP ME OR UNDER LE FOR THIS S	ON WHICH IT IS MY DIRECT SU URVEY, THAT TH	BASED PERVISION; HIS SURVEY	W	C. PAPP
			further certify to				MEETS THE MINIMUM S MEXICO, AND THAT IS MY KNOWLEDGE AND E	TRUE AND COR BELIEF.	RECT TO THE E	BEST OF	1	MEXICO'S
interest	onsent of at least one lessee or owner of a working interest or unleased mineral est in each tract (in the target pool or formation) in which any part of the well's eleted interval will be located or obtained a compulsory pooling form the				f the well's	$\frac{3}{3}$ $\frac{3}{3}$ $\frac{3}{4}$ $\frac{2025}{1}$ $\frac{1}{1}$ $\frac{21209}{1}$						
division				companies.	, peemgjem		TIM C. PAPPAS REGISTERED PROFESSIONAL LAND SURVEYOR STATE OF NEW MEXICO NO. 21209					
Terra	Sebastia	n	1/	3/2025			STATE OF NEW MEXICO	O NO. 21209			Trss.	ONAL SURVE
Signature Date					Signature and Seal	of Profession	al Surveyor					
Terra S	ebastian											
Printed	Name						Certificate Number Date of Survey					
		exxonmol)	xxonmobil.com				TIM C. PAPPAS	S 21209	01/03/2	2025		
Email A		lowahla	Il ha assis J :	this are	alation	II intana-t- !	ama haan aanEJ -	d or a need	andandis !	has been	mana :	by the division
	Note: No al	ıowable wil	u be assigned to	this comp	netion until al	ı ınterests k	ave been consolidate	a or a non-st	andard unit h	as been ap	proved	by the division.



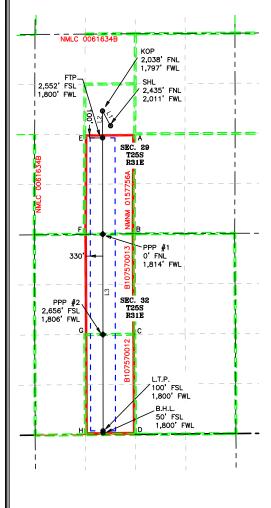
#### ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or a 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 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 than the First Take Point or Last Take Point) that is the closest to any outer boundary of the tract.

Surveyors 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 is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



	LINE TABL	<u>E</u>
LINE	AZIMUTH	LENGTH
L1	331° 42'20"	449.62'
L2	179° 54'18"	716.26'
L3	179° 54'29"	7.818.81'



	С	OORDIN	ATE TAE	BLE			
SH	L (NAD 83 NN		LTP (NAD 83 NME)				
Y =	401,198.7	N	Y =	393,109.6	N		
X =	705,741.2	Е	X =	705,541.6	Е		
LAT. =	32.101862	°N	LAT. =	32.079629	°N		
LONG. =	103.802394	°W	LONG. =	103.803167	°W		
КО	P (NAD 83 NA	ΛE)	ВІ	HL (NAD 83 NM	E)		
Y =	401,594.6	N	Y =	393,059.6	N		
X =	705,528.0	Е	X =	705,541.8	Е		
LAT. =	32.102953	°N	LAT. =	32.079491	°N		
LONG. =	103.803076	°W	LONG. =	103.803167	°W		
FT	P (NAD 83 NN	IE)					
Y =	400,878.4	N					
X =	705,529.2	Е					
LAT. =	32.100984	°N					
LONG. =	103.803084	°W					
	L (NAD 27 NN	IE)	L1	ΓP (NAD 27 NM	E)		
Y =	401,140.8	Ν	Y =	393,051.9	N		
X =	664,555.6	Е	X =	664,355.7	Е		
LAT. =	32.101737	°N	LAT. =	32.079504	°N		
LONG. =		°W	LONG. =	103.802690	°W		
	P (NAD 27 NI	ΛE)	BHL (NAD 27 NME)				
Y =	401,536.7	Ν	Y =	393,001.9	N		
X =	664,342.4	Е	X =	664,355.9	Е		
LAT. =	32.102828	°N	LAT. =	32.079367	°N		
LONG. =	103.802598	°W	LONG. =	103.802690	°W		
	P (NAD 27 NN	IE)					
Y =	400,820.5	N					
X =	664,343.6	Е					
LAT. =	32.100860	°N					
	103.802605	°W					
	#1 (NAD 83 N	ME)		P #1 (NAD 27 NI	ME)		
Y =	398,325.9	N	Y =	398,268.1	N		
X =	705,533.3	Е	X =	664,347.6	Е		
LAT. =	32.093968	°N	LAT. =	32.093843	°N		
LONG. =		°W	LONG. =	103.802633	°W		
	#2 (NAD 83 N	ME)		P #2 (NAD 27 NI	ME)		
Y =	395,665.2	N	Y =	395,607.4	N		
X =	705,537.5	E	X =	664,351.7	Е		
LAT. =	32.086654	°N	LAT. =	32.086529	°N		
LONG. =	103.803140	°W	LONG. =	103.802662	°W		

CC	RNER COO	RDII	NATES (I	NAD83 NME)	
A - Y =	400,984.0	Ν	A - X =	706,383.3	Е
B - Y =	398,334.2	Ν	B - X =	706,368.7	Е
C - Y =	395,671.4	N	C - X =	706,385.5	Ε
D - Y =	393,015.9	Ν	D - X =	706,402.2	Е
E-Y=	400,975.3	Ν	E-X=	705,056.4	Е
F - Y =	398,321.1	Ν	F-X=	705,044.2	Е
G - Y =	395,661.7	N	G-X=	705,058.7	Е
H-Y=	393,006.1	Ν	H-X=	705,072.1	Ε
CC	RNER COO	RDII	NATES (I	NAD27 NME)	
A - Y =	400,926.1	Ν	A - X =	665,197.7	Ε
B - Y =	398,276.4	Ν	B - X =	665,183.0	Ε
C - Y =	395,613.6	N	C - X =	665,199.7	Ε
D - Y =	392,958.2	N	D - X =	665,216.3	Ε
E - Y =	400,917.4	Ν	E - X =	663,870.8	Е
F - Y =	398,263.3	Ν	F-X=	663,858.5	Е
G - Y =	395,603.9	Ν	G-X=	663,872.9	Ε
H - Y =	392,948.4	Ν	H-X=	663,886.2	Е

#### DRILLING PLAN: BLM COMPLIANCE (Supplement to BLM 3160-3)

## ExxonMobil PLU 29 BS 209H Projected TD: 18382' MD / 10134' TVD SHL: 2435' FNL & 2011' FWL , Section 29, T25S, R31E BHL: 50' FSL & 1800' FWL , Section 32, T25S, R31E Eddy County, NM

## 1. Geologic Name of Surface Formation A. Quaternary

#### 2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas

Formation	Well Depth	Water/Oil/Gas	Section View
Rustler	744'	Water	0 SHL
Salado	1156'	Water	
Base of Salt	3973'	Water	€ 2000
Delaware	4190'	Water	£ 4000
Cherry Canyon	5135'	Water/Oil/Gas	## 4000   KOP   FTP
Brushy Canyon	6440'	Water/Oil/Gas	<u></u>
Basal Brushy Canyon	7889'	Water/Oil/Gas	를 <sup>1</sup> 원 · · · · · · · · · · · · · · · · · ·
Bone Spring Lm.	8112'	Water/Oil/Gas	> 8000 KOP
Avalon	8272'	Water/Oil/Gas	. BHL FTP
Lower Avalon	8606'	Water/Oil/Gas	F 10000
1st Bone Spring Lime	8843'	Water/Oil/Gas	LTP
1st Bone Spring Sand	9075'	Water/Oil/Gas	12000
2nd Bone Spring Shale	9320'	Water/Oil/Gas	-10000 -8000 -6000 -4000 -2000 0 2000
2nd Bone Spring Lime	9543'	Water/Oil/Gas	Vertical Section (ft)
2nd Bone Spring Sand	9746'	Water/Oil/Gas	
2nd Bone Spring T/B Carb	10025'	Water/Oil/Gas	Plan View
nd Bone Spring Sand Lower Landir	10134'	Water/Oil/Gas	BHL
3rd Bone Spring Lime	10167'	Water/Oil/Gas	€-8000
-			±-6000
			<b>■</b>
			2 -4000
			NOP SHL KOP
			2000
			14000 9000 4000 -1000 -6000 -11000 -16000
			West(-)/East(+) (ft)
			**************************************

	Inclination (°)	Azimuth (°)	True Vertical Depth (ft)	Y Offset (ft)	X Offset (ft)
SHL	0	0	0	0	0
КОР	0	0	9418	396	-213
LP	90	180	10134	-320	-212
FTP	90	180	10134	-320	-212
LTP	90	180	10134	-8089	-200
BHL	90	180	10134	-8139	-200

#### Section 2 Summary:

\*\*\* Deepest Expected Groundwater Depth: 40' (per NM State Engineers Office).

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 9-5/8" inch casing at 1131' and circulating cement back to surface.

## 3. Primary Casing Design Primary Design:

Hole Size	MD	Casing TVD	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 1131'	1131'	9-5/8"	40	J55	втс	New	11.38	5.25	5.02
8.75	0' – 9239'	9218'	7-5/8"	29.7	L80-IC	Tenaris Wedge 511	New	3.27	2.96	2.32
6.75	0' – 9039'	9018'	5-1/2"	20	P110-CY	TPN	New	1.18	2.84	2.55
6.75	9039' – 18382'	10134'	5-1/2"	20	P110-IC	Tenaris Wedge 441	New	1.18	2.80	2.54

#### Section 3 Summary:

XTO will keep casing fluid filled to meet BLM's collapse requirement. The planned kick off point is located at: 9439' MD / 9418' TVD.

Wellhead:
A multi-bowl wellhead system will be utilized. The well design chosen is: 3-String Slim Non-Potash

Wellhead will be installed by manufacturer's representatives.

Manufacturer will monitor welding process to ensure appropriate temperature of seal.

#### 4. Cement Program

			Р	rimary Cementi	na			
Hole Section	Slurry Type	No. Sacks		Yield (ft3/sack)		Casing Setting Depth (MD)	Excess (%)	Slurry Description
Surface 1	Lead	247	12.4	2.11	0	1,131	100%	
Surface 1	Tail	141	14.8	1.33	831	1,131	100%	
ntermediate 1	Lead							
ntermediate 1	Tail	262	14.8	1.45	6440	9,239	35%	
Production 1	Lead							
Production 1	Tail	727	13.2	1.44	8739	18,382	30%	
			Re	emedial Cement	ing			
Casing	Slurry Type	No. Sacks	Density (ppg)	Yield (ft3/sack)	Cement	ted Interval	Excess (%)	Slurry Description
ntermediate 1	Bradenhead Squeeze	669	14.8	1.45	0 -	- 6440'	50%	Intermediate Class C Bradenhead Squeeze Cement

#### Section 4 Summary:

- Country - Coun
*Bradenhead Squeeze 2nd Stage Offline

#### 5. Pressure Control Equipment

Section	5	Summarv:	
Section	3	Sullillial V.	

Once the permanent WH is installed on the casing, the blow out preventer equipment (BOP) will consist of a minimum 5M Hydril and a minimum 10M triple Ram BOP.
All BOP testing will be done by an independent service company. Operator will Test as per 43CFR-3172

#### **Requested Variances**

#### 4A) Offline Cementing Variance

XOM 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. XOM 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. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence. The TA cap will also be installed when applicable per wellhead manufacturer's procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

#### 5A) Break Test Variance

A break testing variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead for the intermediate hole sections which is in compliance with API Standard 53. The maximum anticipated surface pressure at the deepest intermediate casing point is less than 4800psi.

#### 5B) Flex Hose Variance

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart. The manufacturer does not require anchors.

#### 5C) 10M Annular Variance

XOM requests a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables attached along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

#### 8A) Open Hole Logging Variance

Open hole logging will not be done on this well.

### 10A) Spudder Rig Variance

XOM requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing.

#### 10B) Batch Drilling Variance

XOM requests a variance to be able to batch drill this well. In doing so, XOM will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. XOM will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and intermediate strings are all completed, XOM will begin drilling the production hole on each of the wells.

#### 6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW	Viscosity	Fluid Loss	Comments
INTERVAL	Hole Size	Mud Type	(pqq)	(sec/qt)	(cc)	Comments

0' – 1131'	12.25"	FW/Native	8.3 - 8.7	35-40	NC	Fresh Water or Native Water
1131' – 9239'	8.75"	BDE/OBM or FW/Brine	9.5 - 10	30-32	NC	Fluid type will be based upon on well conditions. A fully saturated system will be used across the salt interval.
9239' – 9039'	6.75"	ОВМ	9 - 9.6	50-60	NC - 20	OBM or Cut Brine depending on Well Conditions
9039' – 18382'	6.75"	ОВМ	9 - 9.6	50-60	NC - 20	OBM or Cut Brine depending on Well Conditions

#### Section 6 Summary:

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under surface casing with a fully saturated brine 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. An EDR (Electronic Drilling Recorder) 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.

## 7. Auxiliary Well Control and Monitoring Equipment

Section	7	Summarv:
Section	,	Julilliai V.

A Kelly cock will be in the drill string at all times.

A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.

H2S monitors will be on location when drilling below the 9-5/8" casing.

### 8. Logging, Coring and Testing Program

#### Section 8 Summary:

Open hole logging will not be done on this well.

#### 9. Abnormal Pressures and Temperatures / Potential Hazards

### Section 9 Summary:

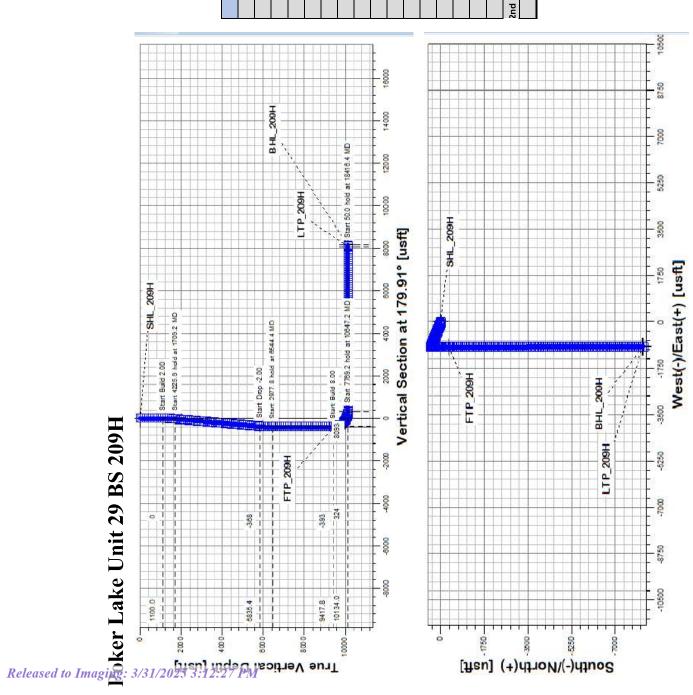
The estimated bottom hole temperature of 166F to 186F. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation is possible throughout the well.

## 10. Anticipated Starting Date and Duration of Operations

#### Section 10 Summary:

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.

Formation	TVDSS (feet)	TVD (feet)
Rustler	2,650'	744'
Salado	2,238'	1,156'
Base of Salt	-579'	3,973'
Delaware	-296,	4,190'
Cherry Canyon	-1,741'	5,135'
Brushy Canyon	-3,046	6,440'
Basal Brushy Canyon	-4,495'	7,889'
Bone Spring Lm.	-4,718'	8,112'
Avalon	-4,878'	8,272'
Lower Avalon	-5,212'	8,606'
1st Bone Spring Lime	-5,449'	8,843'
1st Bone Spring Sand	-5,681'	9,075'
2nd Bone Spring Shale	-5,926'	9,320'
2nd Bone Spring Lime	-6,149'	9,543'
2nd Bone Spring Sand	-6,352'	9,746'
2nd Bone Spring T/B Carb	-6,631	10,025'
nd Bone Spring Sand Lower Landing	-6,740'	10,134'
3rd Bone Spring Lime	-6,773'	10,167'



## **ROC**

PLU 29 BS - Eddy, NMEZ NAD 27 PLU 29 BS Pad C PLU 29 BS 209H

OH

Plan: 3 pt plan

## **Standard Planning Report**

19 December, 2024

## XTO Energy

Planning Report

Database: Company: LMRKPROD3

ROC

PLU 29 BS - Eddy, NMEZ NAD 27

Project: Site:

PLU 29 BS Pad C

Well: Wellbore:

OH 3 pt plan

PLU 29 BS 209H

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Local Co-ordinate Reference:

Well PLU 29 BS 209H 3362+32 @ 3394.00usft

3362+32 @ 3394.00usft

Minimum Curvature

Design: **Project** 

PLU 29 BS - Eddy, NMEZ NAD 27

Map System: Geo Datum:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

Map Zone:

System Datum:

Mean Sea Level

New Mexico East 3001

Site

PLU 29 BS Pad C

PLU 29 BS 209H

Site Position: From:

Мар

Northing: Easting:

401,140.60 usft 664,525.50 usft

Latitude: Longitude:

32° 6' 6.254 N 103° 48' 7.246 W

**Position Uncertainty:** 

0.00 usft

Slot Radius:

13-3/16 "

32° 6' 6.254 N

+N/-S +E/-W

0.00 usft 0.00 usft

**IGRF2020** 

Northing: Easting:

401,140.80 usft 664,555.60 usfl Latitude: Longitude:

103° 48' 6.896 W

**Position Uncertainty Grid Convergence:** 

0.28°

0.00 usft Wellhead Elevation:

8/26/2024

usft

Ground Level:

3,362.00 usfl

Wellbore

**Well Position** 

Well

ОН

**Magnetics** 

**Model Name** Sample Date

Declination (°) 6.27 Dip Angle (°) 59.65 Field Strength (nT)

47,065.89840043

Design

1

3 pt plan

**Audit Notes:** 

Version:

Phase:

**PLAN** 

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD) (usft)

0.00

+N/-S (usft) +E/-W (usft) 0.00

Direction (°)

179.910

Plan Survey Tool Program

Date 12/19/2024

**Depth From** (usft)

0.00

Depth To (usft)

Survey (Wellbore)

18,382.11 3 pt plan (OH)

**Tool Name** 

0.00

Remarks

XOMR2\_OWSG MWD+IFF OWSG MWD + IFR1 + Mult

## XTO Energy

## Planning Report

Database: LMRKPROD3 ROC

Project: PLU 29 BS - Eddy, NMEZ NAD 27

Site: PLU 29 BS Pad C Well: PLU 29 BS 209H

Wellbore: OH
Design: 3 pt plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well PLU 29 BS 209H 3362+32 @ 3394.00usft 3362+32 @ 3394.00usft

Grid

Plan Section	s									
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
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,350.00	0.00	0.000	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,618.61	5.37	331.706	1,618.22	11.08	-5.96	2.00	2.00	0.00	331.71	
6,152.09	5.37	331.706	6,131.78	384.82	-207.15	0.00	0.00	0.00	0.00	
6,420.70	0.00	0.000	6,400.00	395.90	-213.12	2.00	<del>-</del> 2.00	0.00	180.00	
9,438.50	0.00	0.000	9,417.80	395.90	-213.12	0.00	0.00	0.00	0.00	
10,563.50	90.00	179.911	10,134.00	-320.30	-212.00	8.00	0.00	0.00	179.91	FTP v2 - PLU 29 B
18,332.11	90.00	179.911	10,134.00	-8,088.90	-199.90	0.00	0.00	0.00	0.00	LTP v2 - PLU 29 B5
18,382.11	90.00	179.911	10,134.00	-8,138.90	<b>-</b> 199.82	0.00	0.00	0.00	0.00	BHL v2 - PLU 29 B

Database: LMRKPROD3 Company:

ROC

PLU 29 BS - Eddy, NMEZ NAD 27

PLU 29 BS Pad C Site: Well: PLU 29 BS 209H

Wellbore: ОН Design: 3 pt plan

Project:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well PLU 29 BS 209H 3362+32 @ 3394.00usft 3362+32 @ 3394.00usft

Design:	3 pt plan								
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00 100.00 200.00 300.00 400.00	0.00 0.00 0.00 0.00 0.00	0.000 0.000 0.000 0.000 0.000	0.00 100.00 200.00 300.00 400.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
500.00 600.00 700.00 744.00	0.00 0.00 0.00 0.00	0.000 0.000 0.000 0.000	500.00 600.00 700.00 744.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
<b>Rustler</b> 800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00 1,000.00 1,100.00 1,156.00 <b>Salado</b>	0.00 0.00 0.00 0.00	0.000 0.000 0.000 0.000	900.00 1,000.00 1,100.00 1,156.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00 1,350.00 1,400.00 1,500.00 1,600.00	0.00 0.00 1.00 3.00 5.00	0.000 0.000 331.706 331.706 331.706	1,300.00 1,350.00 1,400.00 1,499.93 1,599.68	0.00 0.00 0.38 3.46 9.60	0.00 0.00 -0.21 -1.86 -5.17	0.00 0.00 -0.38 -3.46 -9.61	0.00 0.00 2.00 2.00 2.00	0.00 0.00 2.00 2.00 2.00	0.00 0.00 0.00 0.00 0.00
1,618.61 1,700.00 1,800.00 1,900.00 2,000.00	5.37 5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706 331.706	1,618.22 1,699.25 1,798.81 1,898.37 1,997.93	11.08 17.79 26.03 34.28 42.52	-5.96 -9.58 -14.01 -18.45 -22.89	-11.09 -17.80 -26.06 -34.31 -42.56	2.00 0.00 0.00 0.00 0.00	2.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,100.00 2,200.00 2,300.00 2,400.00 2,500.00	5.37 5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706 331.706	2,097.49 2,197.05 2,296.61 2,396.17 2,495.74	50.77 59.01 67.25 75.50 83.74	-27.33 -31.77 -36.20 -40.64 -45.08	-50.81 -59.06 -67.31 -75.56 -83.81	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,600.00 2,700.00 2,800.00 2,900.00 3,000.00	5.37 5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706 331.706	2,595.30 2,694.86 2,794.42 2,893.98 2,993.54	91.99 100.23 108.47 116.72 124.96	-49.52 -53.95 -58.39 -62.83 -67.27	-92.06 -100.31 -108.56 -116.82 -125.07	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
3,100.00 3,200.00 3,300.00 3,400.00 3,500.00	5.37 5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706 331.706	3,093.10 3,192.66 3,292.22 3,391.78 3,491.34	133.20 141.45 149.69 157.94 166.18	-71.71 -76.14 -80.58 -85.02 -89.46	-133.32 -141.57 -149.82 -158.07 -166.32	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
3,600.00 3,700.00 3,800.00 3,900.00 3,983.78 Base of Sal	5.37 5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706 331.706	3,590.90 3,690.46 3,790.03 3,889.59 3,973.00	174.42 182.67 190.91 199.16 206.06	-93.89 -98.33 -102.77 -107.21 -110.93	-174.57 -182.82 -191.07 -199.32 -206.24	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
		204 700	2 000 45	007.40	444.05	007.57	0.00	0.00	0.00
4,000.00 4,100.00 4,200.00 4,201.74	5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706	3,989.15 4,088.71 4,188.27 4,190.00	207.40 215.64 223.89 224.03	-111.65 -116.08 -120.52 -120.60	-207.57 -215.83 -224.08 -224.22	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
<b>Delaware</b> 4,300.00	5.37	331.706	4,287.83	232.13	-124.96	-232.33	0.00	0.00	0.00

Database: LMRKPROD3 Company:

ROC

Project: PLU 29 BS - Eddy, NMEZ NAD 27

PLU 29 BS Pad C Site: Well: PLU 29 BS 209H

Wellbore: ОН Design: 3 pt plan Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well PLU 29 BS 209H 3362+32 @ 3394.00usft 3362+32 @ 3394.00usft

Design:	3 pt plan								
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00 4,500.00 4,600.00 4,700.00 4,800.00	5.37 5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706 331.706	4,387.39 4,486.95 4,586.51 4,686.07 4,785.63	240.38 248.62 256.86 265.11 273.35	-129.40 -133.83 -138.27 -142.71 -147.15	-240.58 -248.83 -257.08 -265.33 -273.58	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
4,900.00 5,000.00 5,100.00 5,150.91 Cherry Car	5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706	4,885.19 4,984.75 5,084.31 5,135.00	281.60 289.84 298.08 302.28	-151.59 -156.02 -160.46 -162.72	-281.83 -290.08 -298.33 -302.53	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
5,200.00	5.37	331.706	5,183.88	306.33	-164.90	-306.59	0.00	0.00	0.00
5,300.00 5,400.00 5,500.00 5,600.00 5,700.00	5.37 5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706 331.706	5,283.44 5,383.00 5,482.56 5,582.12 5,681.68	314.57 322.81 331.06 339.30 347.55	-169.34 -173.77 -178.21 -182.65 -187.09	-314.84 -323.09 -331.34 -339.59 -347.84	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
5,800.00 5,900.00 6,000.00 6,100.00 6,152.09	5.37 5.37 5.37 5.37 5.37	331.706 331.706 331.706 331.706 331.706	5,781.24 5,880.80 5,980.36 6,079.92 6,131.78	355.79 364.03 372.28 380.52 384.82	-191.53 -195.96 -200.40 -204.84 -207.15	-356.09 -364.34 -372.59 -380.84 -385.14	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
6,200.00 6,300.00 6,400.00 6,420.70 6,460.70	4.41 2.41 0.41 0.00 0.00	331.706 331.706 331.706 0.000 0.000	6,179.52 6,279.34 6,379.30 6,400.00 6,440.00	388.41 393.66 395.83 395.90 395.90	-209.09 -211.91 -213.08 -213.12 -213.12	-388.74 -393.99 -396.16 -396.23 -396.23	2.00 2.00 2.00 2.00 0.00	-2.00 -2.00 -2.00 -2.00 0.00	0.00 0.00 0.00 0.00 0.00
Brushy Car	•								
6,500.00 6,600.00 6,700.00 6,800.00 6,900.00	0.00 0.00 0.00 0.00 0.00	0.000 0.000 0.000 0.000 0.000	6,479.30 6,579.30 6,679.30 6,779.30 6,879.30	395.90 395.90 395.90 395.90 395.90	-213.12 -213.12 -213.12 -213.12 -213.12	-396.23 -396.23 -396.23 -396.23 -396.23	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
7,000.00 7,100.00 7,200.00 7,300.00 7,400.00	0.00 0.00 0.00 0.00 0.00	0.000 0.000 0.000 0.000 0.000	6,979.30 7,079.30 7,179.30 7,279.30 7,379.30	395.90 395.90 395.90 395.90 395.90	-213.12 -213.12 -213.12 -213.12 -213.12	-396.23 -396.23 -396.23 -396.23	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
7,500.00 7,600.00 7,700.00 7,800.00 7,900.00	0.00 0.00 0.00 0.00 0.00	0.000 0.000 0.000 0.000 0.000	7,479.30 7,579.30 7,679.30 7,779.30 7,879.30	395.90 395.90 395.90 395.90 395.90	-213.12 -213.12 -213.12 -213.12 -213.12	-396.23 -396.23 -396.23 -396.23	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
7,909.70	0.00	0.000	7,889.00	395.90	-213.12	-396.23	0.00	0.00	0.00
8,000.00 8,100.00 8,132.70 Bone Sprin	0.00 0.00 0.00 0.00	0.000 0.000 0.000	7,979.30 8,079.30 8,112.00	395.90 395.90 395.90	-213.12 -213.12 -213.12	-396.23 -396.23 -396.23	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
8,200.00	ng Lm. 0.00	0.000	8,179.30	395.90	-213.12	-396.23	0.00	0.00	0.00
8,292.70	0.00	0.000	8,272.00	395.90	-213.12	-396.23	0.00	0.00	0.00
<b>Avalon</b> 8,300.00 8,400.00	0.00 0.00	0.000 0.000	8,279.30 8,379.30	395.90 395.90	-213.12 -213.12	-396.23 -396.23	0.00	0.00 0.00	0.00 0.00

Database: LMRKPROD3 Company:

ROC

Project: PLU 29 BS - Eddy, NMEZ NAD 27

PLU 29 BS Pad C Site: Well: PLU 29 BS 209H

Wellbore: ОН Design: 3 pt plan Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well PLU 29 BS 209H 3362+32 @ 3394.00usft 3362+32 @ 3394.00usft

esign.	3 pt plati								
lanned Surve	у								
Measure Depth (usft)		Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,500. 8,600.		0.000 0.000	8,479.30 8,579.30	395.90 395.90	-213.12 -213.12	-396.23 -396.23	0.00 0.00	0.00 0.00	0.00 0.00
8,626.	70 0.00 <b>Avalon</b>	0.000	8,606.00	395.90	-213.12	-396.23	0.00	0.00	0.00
8,700. 8,800. 8,863.	0.00 0.00	0.000 0.000 0.000	8,679.30 8,779.30 8,843.00	395.90 395.90 395.90	-213.12 -213.12 -213.12	-396.23 -396.23 -396.23	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
	ne Spring Lime								
8,900.		0.000	8,879.30	395.90	-213.12	-396.23	0.00	0.00	0.00
9,000. 9,095.	70 0.00	0.000 0.000	8,979.30 9,075.00	395.90 395.90	-213.12 -213.12	-396.23 -396.23	0.00 0.00	0.00 0.00	0.00 0.00
	ne Spring Sand		0.070.00	205.00	040.40	202.00	2.22		0.00
9,100. 9,200. 9,300.	0.00	0.000 0.000 0.000	9,079.30 9,179.30 9,279.30	395.90 395.90 395.90	-213.12 -213.12 -213.12	-396.23 -396.23 -396.23	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
9,340.	70 0.00	0.000	9,320.00	395.90	-213.12	-396.23	0.00	0.00	0.00
2nd Bo	ne Spring Shale		·						
9,400. 9,438. 9,450. 9,500.	50 0.00 00 0.92	0.000 0.000 179.911 179.911	9,379.30 9,417.80 9,429.30 9,479.22	395.90 395.90 395.80 393.26	-213.12 -213.12 -213.12 -213.11	-396.23 -396.23 -396.14 -393.59	0.00 0.00 8.00 8.00	0.00 0.00 8.00 8.00	0.00 0.00 0.00 0.00
9,550 <b>.</b> 9,564.	35 10.07	179.911 179.911	9,528.85 9,543.00	387.23 384.87	-213.10 -213.10	-387.57 -385.20	8.00 8.00	8.00 8.00	0.00 0.00
	ne Spring Lime	470.044	0.577.04	277 77	242.00	270.40	0.00	0.00	0.00
9,600. 9,650. 9,700.	00 16.92	179.911 179.911 179.911	9,577.94 9,626.24 9,673.53	377.77 364.89 348.69	-213.09 -213.07 -213.04	-378.10 -365.23 -349.02	8.00 8.00 8.00	8.00 8.00 8.00	0.00 0.00 0.00
9,750. 9,779.	43 27.27	179.911 179.911	9,719.57 9,746.00	329.22 316.27	-213.01 -212.99	-329.55 -316.61	8.00 8.00	8.00 8.00	0.00 0.00
	ne Spring Sand	4=0.044							
9,800. 9,850. 9,900.	00 32.92	179.911 179.911 179.911	9,764.15 9,807.03 9,848.02	306.58 280.90 252.28	-212.98 -212.94 -212.89	-306.92 -281.23 -252.62	8.00 8.00 8.00	8.00 8.00 8.00	0.00 0.00 0.00
9,950. 10,000. 10,050. 10,100. 10,150.	00 44.92 00 48.92 00 52.92	179.911 179.911 179.911 179.911 179.911	9,886.91 9,923.52 9,957.67 9,989.18 10,017.91	220.88 186.84 150.32 111.52 70.61	-212.84 -212.79 -212.73 -212.67 -212.61	-221.21 -187.17 -150.66 -111.85 -70.94	8.00 8.00 8.00 8.00 8.00	8.00 8.00 8.00 8.00 8.00	0.00 0.00 0.00 0.00 0.00
10,163.		179.911	10,025.00	59.50	-212.59	-59.84	8.00	8.00	0.00
	ne Spring T/B Ca		.,						
10,200. 10,250. 10,300. 10,350.	00 60.92 00 64.92 00 68.92	179.911 179.911 179.911 179.911	10,043.72 10,066.47 10,086.07 10,102.41	27.80 -16.71 -62.70 -109.95	-212.54 -212.47 -212.40 -212.33	-28.13 16.38 62.37 109.61	8.00 8.00 8.00 8.00	8.00 8.00 8.00 8.00	0.00 0.00 0.00 0.00
10,400. 10,450. 10,500. 10,550. 10,563.	00 80.92 00 84.92 00 88.92 50 90.00	179.911 179.911 179.911 179.911 179.911	10,115.42 10,125.03 10,131.19 10,133.87 10,134.00	-158.21 -207.27 -256.88 -306.80 -320.30	-212.25 -212.18 -212.10 -212.02 -212.00	157.88 206.94 256.55 306.46 319.97	8.00 8.00 8.00 8.00 8.00	8.00 8.00 8.00 8.00 8.00	0.00 0.00 0.00 0.00 0.00
	ne Spring Sand L		-						
10,600. 10,700. 10,800.	00 90.00	179.911 179.911 179.911	10,134.00 10,134.00 10,134.00	-356.80 -456.80 -556.80	-211.94 -211.79 -211.63	356.46 456.46 556.46	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00

Database: LMRKPROD3 ROC

Project: PLU 29 BS - Eddy, NMEZ NAD 27

Site: PLU 29 BS Pad C Well: PLU 29 BS 209H

Wellbore: OH
Design: 3 pt plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well PLU 29 BS 209H 3362+32 @ 3394.00usft 3362+32 @ 3394.00usft

Grid

Design.	3 pt plan								
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)
10,900.00	90.00	179.911	10,134.00	-656.80	-211.48	656.46	0.00	0.00	0.00
11,000.00	90.00	179.911	10,134.00	-756.80	-211.32	756.46	0.00	0.00	0.00
11,100.00	90.00	179.911	10,134.00	-856.80	-211.16	856.46	0.00	0.00	0.00
11,200.00	90.00	179.911	10,134.00	-956.80	-211.01	956.46	0.00	0.00	0.00
11,300.00	90.00	179.911	10,134.00	-1,056.80	-210.85	1,056.46	0.00	0.00	0.00
11,400.00	90.00	179.911	10,134.00	-1,156.80	-210.70	1,156.46	0.00	0.00	0.00
11,500.00	90.00	179.911	10,134.00	-1,256.80	-210.54	1,256.46	0.00	0.00	0.00
11,600.00	90.00	179.911	10,134.00	-1,356.80	-210.39	1,356.46	0.00	0.00	0.00
11,700.00	90.00	179.911	10,134.00	-1,456.80	-210.23	1,456.46	0.00	0.00	0.00
11,800.00	90.00	179.911	10,134.00	-1,556.80	-210.07	1,556.46	0.00	0.00	0.00
11,900.00	90.00	179.911	10,134.00	-1,656.80	-209.92	1,656.46	0.00	0.00	0.00
12,000.00	90.00	179.911	10,134.00	-1,756.80	-209.76	1,756.46	0.00	0.00	0.00
12,100.00	90.00	179.911	10,134.00	-1,856.80	-209.61	1,856.46	0.00	0.00	0.00
12,200.00	90.00	179.911	10,134.00	-1,956.80	-209.45	1,956.46	0.00	0.00	0.00
12,300.00	90.00	179.911	10,134.00	-2,056.80	-209.30	2,056.46	0.00	0.00	0.00
12,400.00	90.00	179.911	10,134.00	-2,156.80	-209.14	2,156.46	0.00	0.00	0.00
12,500.00	90.00	179.911	10,134.00	-2,256.80	-208.98	2,256.46	0.00	0.00	0.00
12,600.00	90.00	179.911	10,134.00	-2,356.79	-208.83	2,356.46	0.00	0.00	0.00
12,700.00	90.00	179.911	10,134.00	-2,456.79	-208.67	2,456.46	0.00	0.00	0.00
12,800.00	90.00	179.911	10,134.00	-2,556.79	-208.52	2,556.46	0.00	0.00	0.00
12,900.00	90.00	179.911	10,134.00	-2,656.79	-208.36	2,656.46	0.00	0.00	0.00
13,000.00	90.00	179.911	10,134.00	-2,756.79	-208.21	2,756.46	0.00	0.00	0.00
13,100.00	90.00	179.911	10,134.00	-2,856.79	-208.05	2,856.46	0.00	0.00	0.00
13,200.00	90.00	179.911	10,134.00	-2,956.79	-207.89	2,956.46	0.00	0.00	0.00
13,300.00	90.00	179.911	10,134.00	-3,056.79	-207.74	3,056.46	0.00	0.00	0.00
13,400.00	90.00	179.911	10,134.00	-3,156.79	-207.58	3,156.46	0.00	0.00	0.00
13,500.00	90.00	179.911	10,134.00	-3,256.79	-207.43	3,256.46	0.00	0.00	0.00
13,600.00	90.00	179.911	10,134.00	-3,356.79	-207.27	3,356.46	0.00	0.00	0.00
13,700.00	90.00	179.911	10,134.00	-3,456.79	-207.11	3,456.46	0.00	0.00	0.00
13,800.00	90.00	179.911	10,134.00	-3,556.79	-206.96	3,556.46	0.00	0.00	0.00
13,900.00	90.00	179.911	10,134.00	-3,656.79	-206.80	3,656.46	0.00	0.00	0.00
14,000.00	90.00	179.911	10,134.00	-3,756.79	-206.65	3,756.46	0.00	0.00	0.00
14,100.00	90.00	179.911	10,134.00	-3,856.79	-206.49	3,856.46	0.00	0.00	0.00
14,200.00	90.00	179.911	10,134.00	-3,956.79	-206.34	3,956.46	0.00	0.00	0.00
14,300.00	90.00	179.911	10,134.00	-4,056.79	-206.18	4,056.46	0.00	0.00	0.00
14,400.00	90.00	179.911	10,134.00	-4,156.79	-206.02	4,156.46	0.00	0.00	0.00
14,500.00	90.00	179.911	10,134.00	-4,256.79	-205.87	4,256.46	0.00	0.00	0.00
14,600.00	90.00	179.911	10,134.00	-4,356.79	-205.71	4,356.46	0.00	0.00	0.00
14,700.00	90.00	179.911	10,134.00	-4,456.79	-205.56	4,456.46	0.00	0.00	0.00
14,800.00	90.00	179.911	10,134.00	-4,556.79	-205.40	4,556.46	0.00	0.00	0.00
14,900.00	90.00	179.911	10,134.00	-4,656.79	-205.25	4,656.46	0.00	0.00	0.00
15,000.00	90.00	179.911	10,134.00	-4,756.79	-205.09	4,756.46	0.00	0.00	0.00
15,100.00	90.00	179.911	10,134.00	-4,856.79	-204.93	4,856.46	0.00	0.00	0.00
15,200.00	90.00	179.911	10,134.00	-4,956.79	-204.78	4,956.46	0.00	0.00	0.00
15,300.00	90.00	179.911	10,134.00	-5,056.79	-204.62	5,056.46	0.00	0.00	0.00
15,400.00	90.00	179.911	10,134.00	-5,156.79	-204.47	5,156.46	0.00	0.00	0.00
15,500.00	90.00	179.911	10,134.00	-5,256.79	-204.31	5,256.46	0.00	0.00	0.00
15,600.00	90.00	179.911	10,134.00	-5,356.79	-204.16	5,356.46	0.00	0.00	0.00
15,700.00	90.00	179.911	10,134.00	-5,456.79	-204.00	5,456.46	0.00	0.00	0.00
15,800.00	90.00	179.911	10,134.00	-5,556.79	-203.84	5,556.46	0.00	0.00	0.00
15,900.00	90.00	179.911	10,134.00	-5,656.79	-203.69	5,656.46	0.00	0.00	0.00
16,000.00	90.00	179.911	10,134.00	-5,756.79	-203.53	5,756.46	0.00	0.00	0.00
16,100.00	90.00	179.911	10,134.00	-5,856.79	-203.38	5,856.46	0.00	0.00	0.00
16,200.00	90.00	179.911	10,134.00	-5,956.79	-203.22	5,956.46	0.00	0.00	0.00

## XTO Energy

**Planning Report** 

Database: Company: LMRKPROD3

ROC

PLU 29 BS - Eddy, NMEZ NAD 27

Site: Well:

Project:

PLU 29 BS Pad C PLU 29 BS 209H

Wellbore: OH
Design: 3 pt plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well PLU 29 BS 209H 3362+32 @ 3394.00usft 3362+32 @ 3394.00usft

Grid

_									
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,300.00	90.00	179.911	10,134.00	-6,056.79	-203.07	6,056.46	0.00	0.00	0.00
16,400.00	90.00	179.911	10,134.00	-6,156.79	-202.91	6,156.46	0.00	0.00	0.00
16,500.00	90.00	179.911	10,134.00	-6,256.79	-202.75	6,256.46	0.00	0.00	0.00
16,600.00	90.00	179.911	10,134.00	-6,356.79	-202.60	6,356.46	0.00	0.00	0.00
16,700.00	90.00	179.911	10,134.00	-6,456.79	-202.44	6,456.46	0.00	0.00	0.00
16,800.00	90.00	179.911	10,134.00	-6,556.79	-202.29	6,556.46	0.00	0.00	0.00
16,900.00	90.00	179.911	10,134.00	-6,656.79	-202.13	6,656.46	0.00	0.00	0.00
17,000.00	90.00	179.911	10,134.00	-6,756.79	-201.97	6,756.46	0.00	0.00	0.00
17,100.00	90.00	179.911	10,134.00	-6,856.79	-201.82	6,856.46	0.00	0.00	0.00
17,200.00	90.00	179.911	10,134.00	-6,956.79	-201.66	6,956.46	0.00	0.00	0.00
17,300.00	90.00	179.911	10,134.00	-7,056.79	-201.51	7,056.46	0.00	0.00	0.00
17,400.00	90.00	179.911	10,134.00	-7,156.79	-201.35	7,156.46	0.00	0.00	0.00
17,500.00	90.00	179.911	10,134.00	-7,256.79	-201.20	7,256.46	0.00	0.00	0.00
17,600.00	90.00	179.911	10,134.00	-7,356.79	-201.04	7,356.46	0.00	0.00	0.00
17,700.00	90.00	179.911	10,134.00	-7,456.79	-200.88	7,456.46	0.00	0.00	0.00
17,800.00	90.00	179.911	10,134.00	-7,556.79	-200.73	7,556.46	0.00	0.00	0.00
17,900.00	90.00	179.911	10,134.00	-7,656.79	-200.57	7,656.46	0.00	0.00	0.00
18,000.00	90.00	179.911	10,134.00	-7,756.79	-200.42	7,756.46	0.00	0.00	0.00
18,100.00	90.00	179.911	10,134.00	-7,856.79	-200.26	7,856.46	0.00	0.00	0.00
18,200.00	90.00	179.911	10,134.00	-7,956.79	-200.11	7,956.46	0.00	0.00	0.00
18,300.00	90.00	179.911	10,134.00	-8,056.79	-199.95	8,056.46	0.00	0.00	0.00
18,332.11	90.00	179.911	10,134.00	-8,088.90	-199.90	8,088.58	0.00	0.00	0.00
18,382.11	90.00	179.911	10,134.00	-8,138.90	-199.82	8,138.58	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP v2 - PLU 29 BS - plan hits target - Point		0.005	10,134.00	-320.30	-212.00	400,820.50	664,343.60	32° 6' 3.095 N	103° 48' 9.379 W
LTP v2 - PLU 29 BS - plan hits target - Point		0.005	10,134.00	-8,088.90	-199.90	393,051.90	664,355.70	32° 4' 46.215 <b>N</b>	103° 48' 9.682 W
BHL v2 - PLU 29 BS - plan misses tar - Point			10,134.00 18382.11u	-8,138.90 sft MD (1013	-199.70 4.00 TVD, -8	393,001.90 138.90 N, <b>-</b> 199.8	664,355.90 2 E)	32° 4' 45.720 N	103° 48' 9.683 W

## **XTO Energy**

## **Planning Report**

Database: LMRKPROD3

Company: ROC

 Project:
 PLU 29 BS - Eddy, NMEZ NAD 27

 Site:
 PLU 29 BS Pad C

 Well:
 PLU 29 BS 209H

Wellbore: OH
Design: 3 pt plan

Local Co-ordinate Reference:

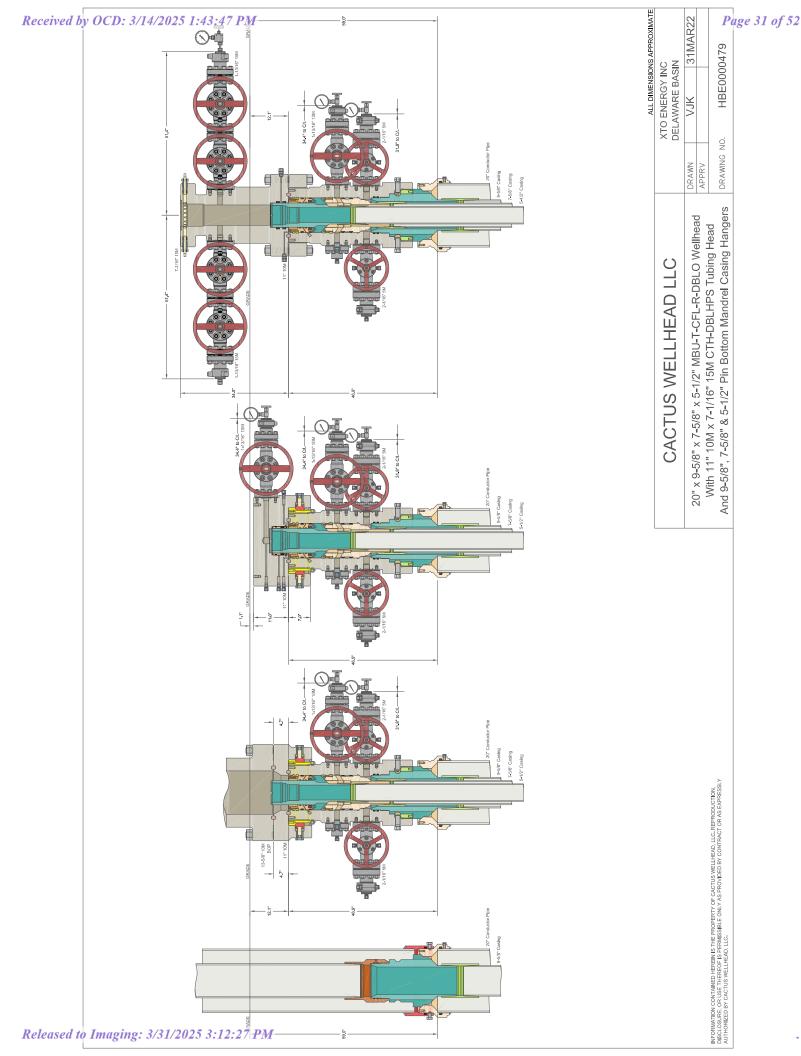
TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well PLU 29 BS 209H 3362+32 @ 3394.00usft 3362+32 @ 3394.00usft

Grid

ormations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	744.00	744.00	Rustler			
	1,156.00	1,156.00	Salado			
	3,983.78	3,973.00	Base of Salt			
	4,201.74	4,190.00	Delaware			
	5,150.91	5,135.00	Cherry Canyon			
	6,460.70	6,440.00	Brushy Canyon			
	7,909.70	7,889.00	Basal Brushy Canyon			
	8,132.70	8,112.00	Bone Spring Lm.			
	8,292.70	8,272.00	Avalon			
	8,626.70	8,606.00	Lower Avalon			
	8,863.70	8,843.00	1st Bone Spring Lime			
	9,095.70	9,075.00	1st Bone Spring Sand			
	9,340.70	9,320.00	2nd Bone Spring Shale			
	9,564.35	9,543.00	2nd Bone Spring Lime			
	9,779.43	9,746.00	2nd Bone Spring Sand			
	10,163.18	10,025.00	2nd Bone Spring T/B Carb			
	10,563.50	10,134.00	2nd Bone Spring Sand Lower Landi			





# TenarisHydril Wedge 511



Coupling	Pipe Body
Grade: L80-IC	Grade: L80-IC
Body: Red	1st Band: Red
1st Band: Brown	2nd Band: Brown
2nd Band: -	3rd Band: Pale Green
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	7 <b>.</b> 625 in <b>.</b>
Min. Wall Thickness	87.50 %
Connection OD Option	REGULAR

Wall Thickness	0,375 in,
Pipe Body Drift	API Standard

Grade	L8U-IC
Туре	Casing

#### Pipe Body Data

Geometry			
Nominal OD	7.625 in.	Wall Thickness	0 <b>.</b> 375 in <b>.</b>
Nominal Weight	29.70 lb/ft	Plain End Weight	29.06 lb/ft
Drift	6.750 in.	OD Tolerance	API
Nominal ID	6.875 in.		

Performance	
Body Yield Strength	683 x1000 lb
Min. Internal Yield Pressure	6890 psi
SMYS	80,000 psi
Collapse Pressure	5900 psi

#### **Connection Data**

Geometry	
Connection OD	7.625 in.
Connection ID	6.787 in.
Make-up Loss	3.704 in.
Threads per inch	3.28
Connection OD Option	Regular

Performance	
Tension Efficiency	61.10 %
Joint Yield Strength	417 x1000 lb
Internal Pressure Capacity	6890 psi
Compression Efficiency	73.80 %
Compression Strength	504 x1000 lb
Max. Allowable Bending	29.33 °/100 ft
External Pressure Capacity	5900 psi

Make-Up Torques	
Minimum	5900 ft-lb
Optimum	7100 ft-lb
Maximum	10,300 ft-lb
Operation Limit Torques	
Operating Torque	35,000 ft-lb
Yield Torque	52,000 ft-lb

## Notes

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For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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Coupling	Pipe Body
Grade: P110-CY	Gradet P110-CY
Body: White	1st Band: White
1st Band: Grey	2nd Band: Grey
2nd Band: -	3rd Band: =
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	5,500 in.	Wall Thickness	0,361 in,	Grade	P110-CY
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Туре	Casing
Connection OD Option	REGULAR				

#### Pipe Body Data

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20,00 lb/ft	Plain End Weight	19 <u>.</u> 83 lb/ft
Drift	4.653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Performance	
Body Yield Strength	641 x1000 lb
Min. Internal Yield Pressure	12,640 psi
SMYS	110,000 psi
Collapse Pressure	11,100 psi

#### **Connection Data**

Geometry	
Connection OD	6.300 in.
Coupling Length	8.408 in.
Connection ID	4.778 in.
Make-up Loss	4,204 in.
Threads per inch	5
Connection OD Option	Regular

Performance	
Tension Efficiency	100 %
Joint Yield Strength	641 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	100 %
Compression Strength	641 x1000 lb
Max. Allowable Bending	92 °/100 ft
External Pressure Capacity	11,100 psi

Make-Up Torques	
Minimum	13,860 ft-lb
Optimum	15,400 ft-lb
Maximum	16,940 ft-lb
Operation Limit Torques	
Operating Torque	26,350 ft-lb
Yield Torque	29,300 ft-lb

## Notes

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PI/CII



# TenarisHydril Wedge 441®



Coupling	Pipe Body
Grade: P110-IC	Grade: P110-IC
Body: White	1st Band: White
1st Band: -	2nd Band: Pale Green
2nd Band: -	3rd Band: =
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

0,361 in. API Standard

Outside Diameter	5,500 in.	Wall Thickness
Min. Wall Thickness	87.50 %	Pipe Body Drift
Connection OD Ontion	REGULAR	

Grade	P110-IC
Туре	Casing

#### Pipe Body Data

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20.00 lb/ft	Plain End Weight	19.83 lb/ft
Drift	4,653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Collapse Pressure	12,300 psi
SMYS	110,000 psi
Min. Internal Yield Pressure	12,640 psi
Body Yield Strength	641 x1000 lb
Performance	

#### **Connection Data**

Geometry	
Connection OD	5.852 in.
Coupling Length	8.714 in.
Connection ID	4,778 in.
Make-up Loss	3.780 in.
Threads per inch	3.40
Connection OD Option	Regular

Performance	
Tension Efficiency	81.50 %
Joint Yield Strength	522 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	81.50 %
Compression Strength	522 x1000 lb
Max. Allowable Bending	74,98 °/100 ft
External Pressure Capacity	12,300 psi

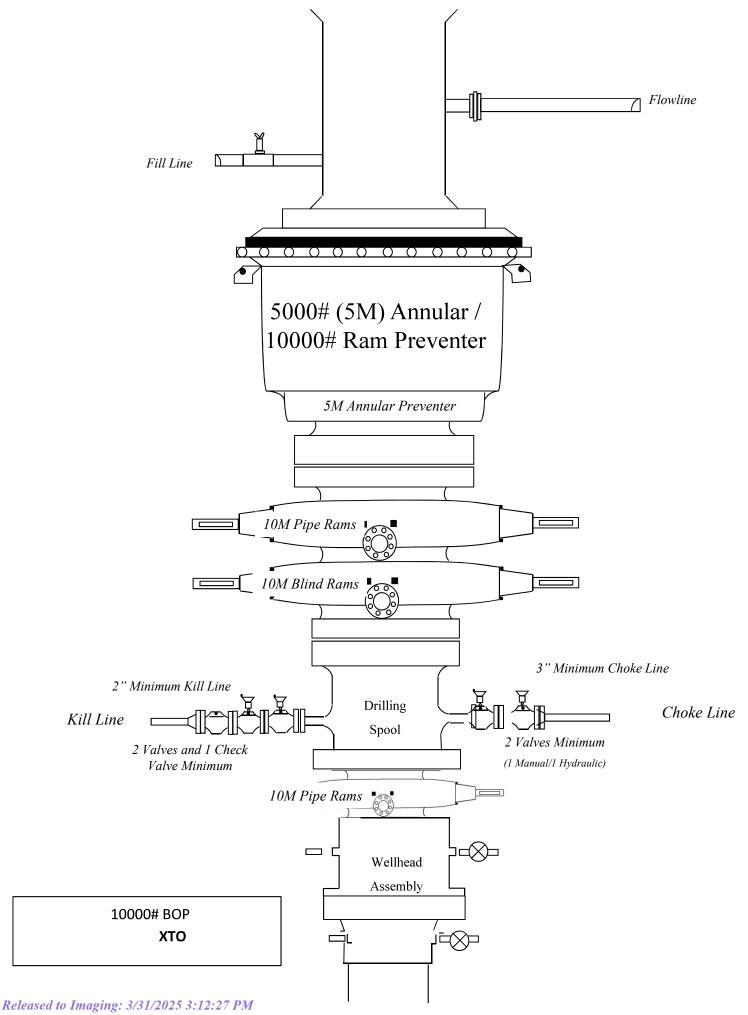
Make-Up Torques	
Minimum	15,000 ft-lb
Optimum	16,000 ft-lb
Maximum	19,200 ft-lb
Operation Limit Torques	
Operating Torque	32,000 ft-lb
Yield Torque	38,000 ft-lb
Buck-On	
Minimum	19,200 ft-lb
Maximum	20,700 ft-lb

## Notes

This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.304 (17.00) in. (lb/ft)
Wedge 461® - 5.5 in. - 0.304 (17.00) / 0.361 (20.00) / 0.415 (23.00) in. (lb/ft)
Connections with Dopeless® Technology are fully compatible with the same connection in its doped version
Connection performance values are related to structural capabilities. For sealability-related performance information, request the Connection Service Envelope from your local Tenaris

For the lastest performance data, always visit our website: www.tenaris.com
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Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE)

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

#### **Background**

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

#### **Supporting Documentation**

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



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

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

2	API STANDARD	53	
Tal	ole C.4—Initial Pressure Te	esting, Surface BOP Stacks	
	Pressure Test—Low	Pressure Test—High Pressure	
Component to be Pressure Tested	Pressure <sup>ac</sup> psig (MPa)	Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer <sup>b</sup>	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers <sup>bd</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokese	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokese	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	
	during the evaluation period. The p	pressure shall not decrease below the	
<sup>c</sup> For pad drilling operations, moving		n the 21 days, pressure testing is req	And the second s
	land operations, the ram BOPs sha	ted with the ram locks engaged and all be pressure tested with the ram lo	
e Adjustable chokes are not required	THE RESIDENCE OF THE PARTY OF T	testing against a closed choke is no	at 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 Oand often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

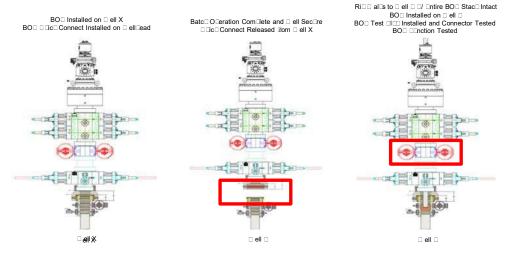
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

#### **Procedures**

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

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

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



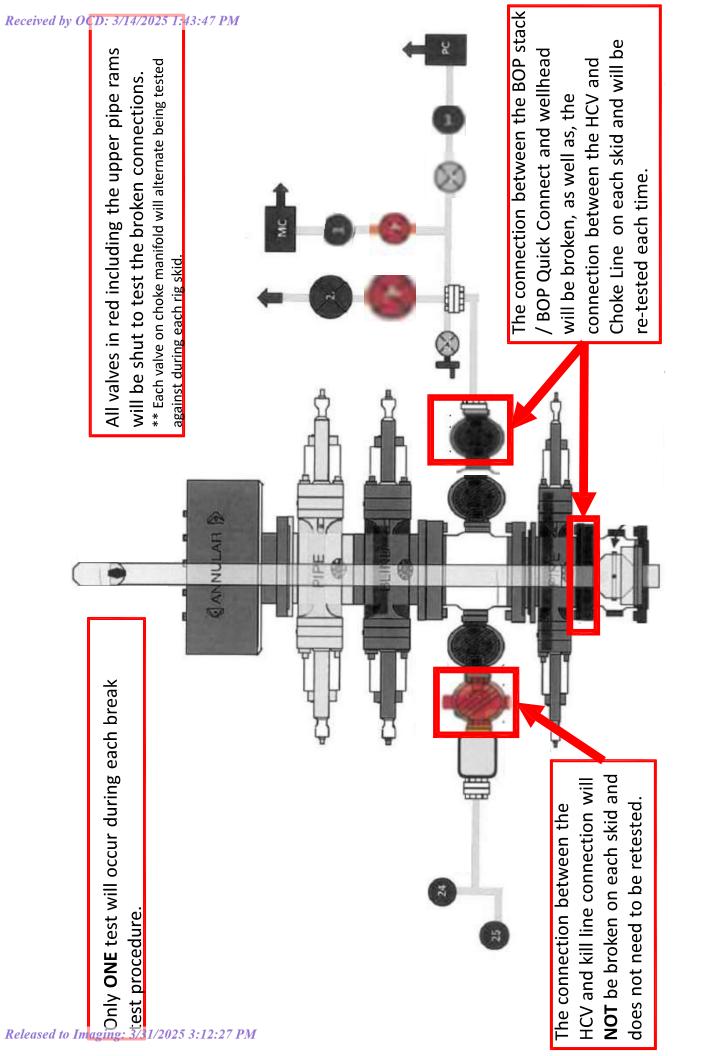
#### **Summary**

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

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

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

- 1. After a full BOP test is conducted on the first well on the pad.
- 2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
- 3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
- 4. Full BOP test will be required prior to drilling the production hole.



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

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

#### 1. Cement Program

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

#### 2. Offline Cementing Procedure

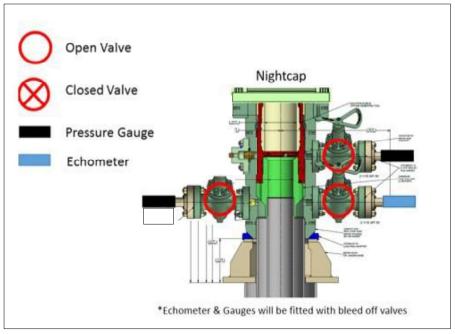
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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



Annular packoff with both external and internal seals

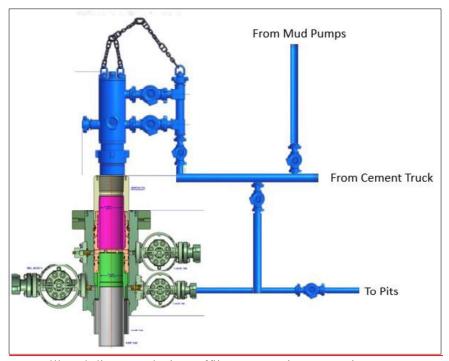
#### **XTO Permian Operating, LLC Offline Cementing Variance Request**



Wellhead diagram during skidding operations

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

#### 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.

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



**GATES ENGINEERING & SERVICES NORTH AMERICA** 

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NEW CHOKE HOSE

INSTRUED 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 #:

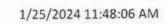
74621 H3-012524-1

SIGNATURE: 7. OUS SURANCE

TITLE: QUALITY ASSURANCE

DATE: 1/25/2024

### H3-15/16





## **TEST REPORT**

CUSTOMER

Company:

Nabors Industries Inc.

**TEST OBJECT** 

Serial number: H3-012524-1

Lot number:

Production description:

Sales order #:

74621/66-1531

529480

Description:

74621/66-1531

3.0 x 4-1/16 10K

3.0 x 4-1/16 10K

Customer reference:

FG1213

Hose ID:

3" 16C CK

Part number:

**TEST INFORMATION** 

Test pressure hold:

Work pressure hold:

Length difference:

Length difference:

Test procedure: Test pressure:

Work pressure:

GTS-04-053 15000.00

psi

sec

10000.00

3600.00

psi sec

900.00

0.00 0.00

% inch Fitting 1:

Part number:

Description:

Fitting 2:

Part number:

Description:

Visual check:

Pressure test result:

PASS

Length measurement result:

Length:

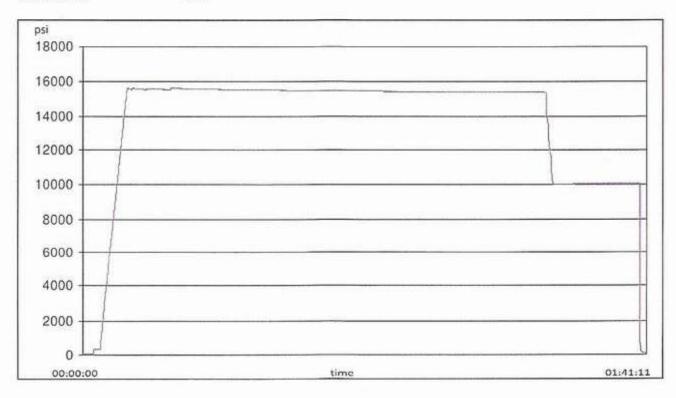
45

feet

D. ... 15

Test operator:

Travis





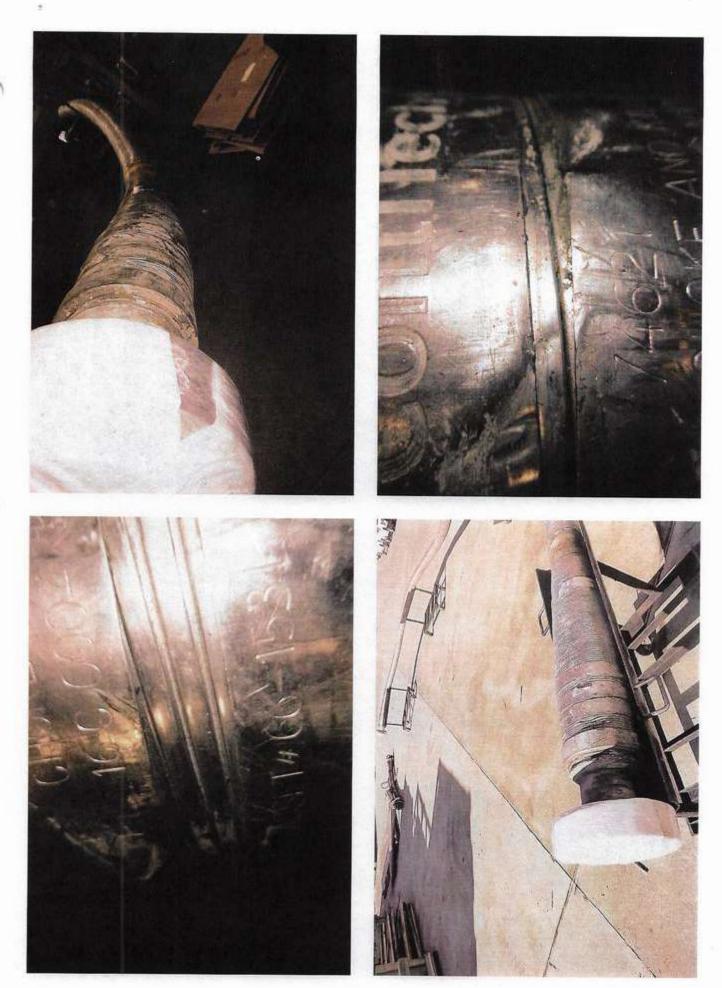
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1/25/2024 11:48:06 AM

## **TEST REPORT**

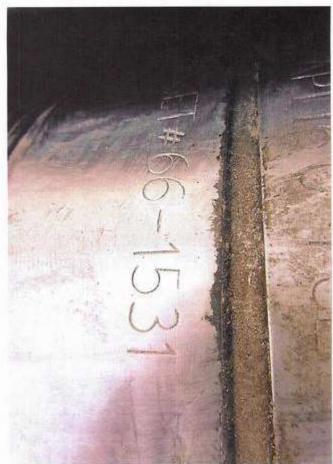
#### **GAUGE TRACEABILITY**

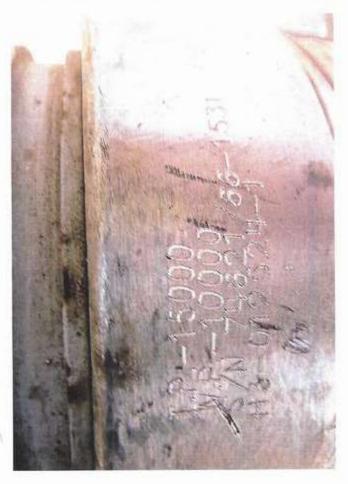
Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110D3PHO	2023-06-06	2024-06-06
S-25-A-W	110IQWDG	2023-05-16	2024-05-16
Comment			



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

General Information Phone: (505) 629-6116

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

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

CONDITIONS

Action 442681

#### **CONDITIONS**

Operator:	OGRID:
XTO PERMIAN OPERATING LLC.	373075
6401 HOLIDAY HILL ROAD	Action Number:
MIDLAND, TX 79707	442681
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	3/31/2025