

Well Name: POKER LAKE UNIT 22 DTD	Well Location: T24S / R30E / SEC 22 / NWNE / 32.209431 / -103.866476	County or Parish/State: EDDY / NM
Well Number: 154H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM068905	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549871	Operator: XTO PERMIAN OPERATING LLC	

Notice of Intent

Sundry ID: 2785994

Type of Submission: Notice of Intent Type of Action: APD Change

Date Sundry Submitted: 04/19/2024 Time Sundry Submitted: 01:31

Date proposed operation will begin: 05/03/2024

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include FTP, LTP, BHL, Casing sizes, Cement, Proposed total Depth, and formation (Pool). FROM: TO: FTP: 100' FSL & 2237' FWL OF SECTION 15-T24S-R30E 100' FNL & 1834' FEL OF SECTION 22-T24S-R30E LTP: 328' FNL & 2293' FWL OF SECTION 3-T24S-R30E 2537' FNL & 1833' FEL OF SECTION 34-T24S-R30E BHL: 199' FNL & 2294' FWL OF SECTION 3-T24S-R30E 2627' FNL & 1833' FEL OF SECTION 34-T24S-R30E The proposed total depth is changing from 28120' MD; 12184' TVD (Jennings/Wolfcamp (Gas)) to 23918' MD; 11147' TVD (Wolfcamp X/Y). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Plan, MBS, BOP Variance, and Well Control Plan. No additional Surface Disturbance will occur with the Sundry.

NOI Attachments

Procedure Description

PLU_22_DTD_154H_Sundry_Documents_20241113111722.pdf

Received by OCD: 11/27/2024 7:31:07 AM

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Conditions of Approval

Additional
Poker_Lake_Unit_22_DTD_154H_COA_20241126110053.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: ADRIAN BAKER
Signed on: NOV 13, 2024 11:17 AM
Name: XTO PERMIAN OPERATING LLC
Title: Regulatory Analyst
Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY
City: SPRING State: TX
Phone: (432) 236-3808
Email address: ADRIAN.BAKER@EXXONMOBIL.COM

Field

Representative Name:
Street Address:
City: State: Zip:
Phone:
Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS
BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234
BLM POC Email Address: cwalls@blm.gov
Disposition: Approved
Disposition Date: 11/26/2024
Signature: Chris Walls

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No.
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)		
	Title	
Signature	Date	

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

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, 3162.3-3, 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

Additional Information

Additional Remarks

Attachments: C-102, Drilling Plan, Directional Plan, MBS, BOP Variance, and Well Control Plan.

No additional Surface Disturbance will occur with the Sundry.

Location of Well

0. SHL: NWNE / 414 FNL / 1916 FEL / TWSP: 24S / RANGE: 30E / SECTION: 22 / LAT: 32.209431 / LONG: -103.866476 (TVD: 0 feet, MD: 0 feet)

PPP: SWNE / 100 FSL / 1577 FWL / TWSP: 24S / RANGE: 30E / SECTION: 15 / LAT: 32.210805 / LONG: -103.872488 (TVD: 12184 feet, MD: 15225 feet)

PPP: SWSE / 100 FSL / 2237 FWL / TWSP: 24S / RANGE: 30E / SECTION: 15 / LAT: 32.210818 / LONG: -103.870354 (TVD: 12184 feet, MD: 12582 feet)

PPP: NWNE / 300 FNL / 313 FWL / TWSP: 24S / RANGE: 30E / SECTION: 10 / LAT: 32.253158 / LONG: -103.876545 (TVD: 12184 feet, MD: 17865 feet)

BHL: LOT 3 / 199 FNL / 2294 FWL / TWSP: 24S / RANGE: 30E / SECTION: 3 / LAT: 32.25353 / LONG: -103.870139 (TVD: 12184 feet, MD: 28120 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	NMNM068905
LOCATION:	Sec. 22, T.24 S, R 30 E
COUNTY:	Eddy County, New Mexico ▼
WELL NAME & NO.:	Poker Lake Unit 22 DTD 154H
SURFACE HOLE FOOTAGE:	414'/S & 1916'/E
BOTTOM HOLE FOOTAGE:	2627'/N & 1833'/E

Changes approved through engineering via **Sundry 2785994** on 11-26-2024. Any previous COAs not addressed within the updated COAs still apply.

COA

H ₂ S	<input checked="" type="radio"/> No <input type="radio"/> Yes			
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-Q	<input type="checkbox"/> Open Annulus <input type="checkbox"/> WIPP
Choose an option (including blank option.)				
Cave / Karst	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input checked="" type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
Waste Prev.	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
Additional Language	<input checked="" type="checkbox"/> Flex Hose <input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Casing Clearance <input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Pilot Hole <input type="checkbox"/> Fluid-Filled	<input checked="" type="checkbox"/> Break Testing

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 **894** 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 **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
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 6471'**.
 - b. **Second stage:** Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

Operator has proposed to pump down **Surface X 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 Intermediate 1 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.

Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

- a. 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.
- b. Manufacturer representative shall install the test plug for the initial BOP test.
- c. 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.
- d. 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](mailto: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 2nd 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 2nd 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 11/26/2024
575-234-5998 / zstevens@blm.gov

C-102 Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024	
		Submittal Type:	<input type="checkbox"/> Initial Submittal
			<input checked="" type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION INFORMATION			
API Number 30-015-	Pool Code 98220	Pool Name PURPLE SAGE; WOLFCAMP (GAS)	
Property Code	Property Name POKER LAKE UNIT 22 DTD	Well Number 154H	
OGRID No. 373075	Operator Name XTO PERMIAN OPERATING, LLC.	Ground Level Elevation 3,414'	
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal	

Surface Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	22	24S	30E		414 FNL	1,916 FEL	32.209431	-103.866475	EDDY

Bottom Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
G	34	24S	30E		2,627 FNL	1,833 FEL	32.174372	-103.866137	EDDY


Dedicated Acres 1,600.00	Infill or Defining Well INFILL	Defining Well API 30-015-49881	Overlapping Spacing Unit (Y/N) Y	Consolidation Code U
Order Numbers.			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	22	24S	30E		414 FNL	1,834 FEL	32.209431	-103.866475	EDDY

First Take Point (FTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	22	24S	30E		100 FNL	1,834 FEL	32.210295	-103.866209	EDDY

Last Take Point (LTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
G	34	24S	30E		2,537 FNL	1,833 FEL	32.174619	-103.866138	EDDY

Unitized Area of Area of Interest	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation 3,414'
-----------------------------------	--	-----------------------------------

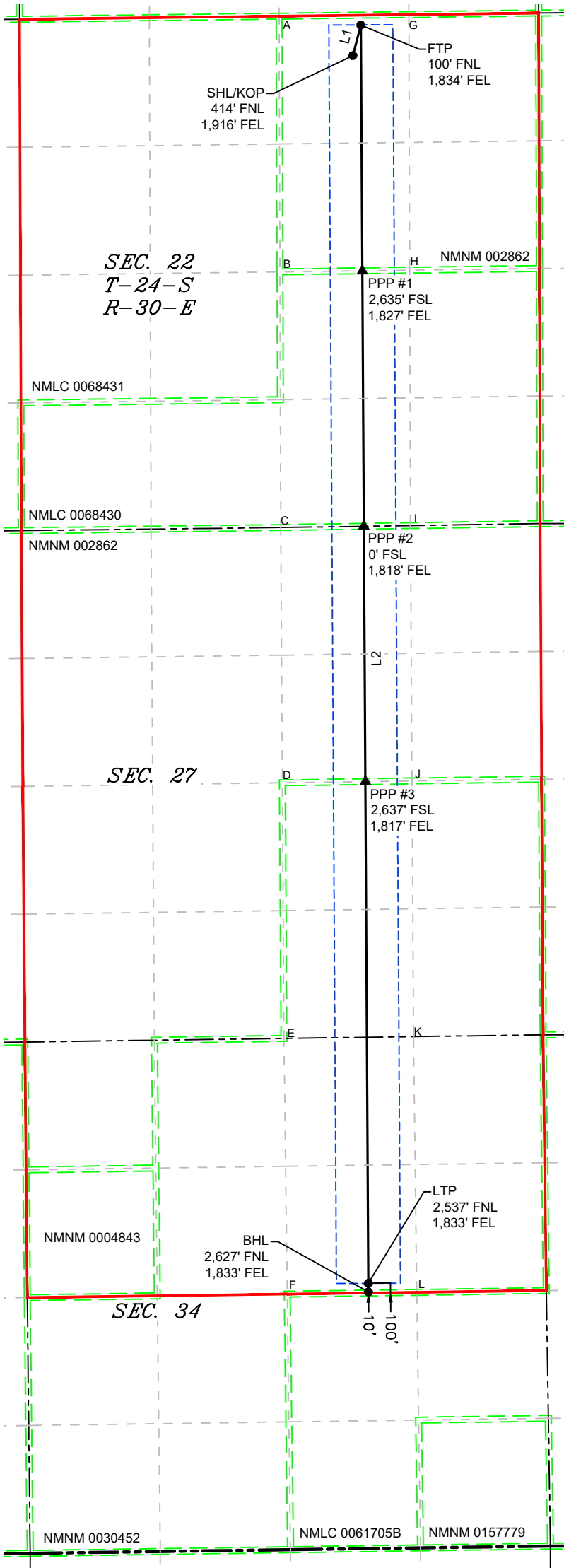
<div>OPERATOR CERTIFICATIONS</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or a voluntary pooling agreement or a compulsory pooling order of heretofore entered by the division.</div> <div>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</div> <div><div>Terra Sebastian</div><div>Signature</div><div>10/29/2024</div><div>Date</div></div> <div><div>Terra Sebastian</div><div>Printed Name</div></div> <div><div>terra.b.sebastian@exxonmobil.com</div><div>Email Address</div></div>	<div>SURVEYOR CERTIFICATIONS</div> <div>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</div> <div><div></div><div>Signature and Seal of Professional Surveyor</div></div> <div><div></div><div>MARK DILLON HARP 23786</div><div>Certificate Number</div><div>10/29/2024</div><div>Date of Survey</div></div> <div><div>KT</div><div>618.013003.08-51</div></div>
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Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

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

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



LEGEND

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

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	014°26'01"	325.07'
L2	179°39'14"	13,068.66'

COORDINATE TABLE			
SHL/KOP (NAD 83 NME)		SHL/KOP (NAD 27 NME)	
Y =	440,238.7 N	Y =	440,179.6 N
X =	685,728.8 E	X =	644,545.1 E
LAT. =	32.209431 °N	LAT. =	32.209307 °N
LONG. =	103.866475 °W	LONG. =	103.865988 °W
FTP (NAD 83 NME)		FTP (NAD 27 NME)	
Y =	440,553.5 N	Y =	440,494.4 N
X =	685,809.8 E	X =	644,626.1 E
LAT. =	32.210295 °N	LAT. =	32.210171 °N
LONG. =	103.866209 °W	LONG. =	103.865722 °W
PPP #1 (NAD 83 NME)		PPP #1 (NAD 27 NME)	
Y =	438,017.3 N	Y =	437,958.3 N
X =	685,825.1 E	X =	644,641.3 E
LAT. =	32.203324 °N	LAT. =	32.203200 °N
LONG. =	103.866195 °W	LONG. =	103.865709 °W
PPP #2 (NAD 83 NME)		PPP #2 (NAD 27 NME)	
Y =	435,382.3 N	Y =	435,323.4 N
X =	685,840.9 E	X =	644,657.0 E
LAT. =	32.196080 °N	LAT. =	32.195956 °N
LONG. =	103.866181 °W	LONG. =	103.865695 °W
PPP #3 (NAD 83 NME)		PPP #3 (NAD 27 NME)	
Y =	432,749.1 N	Y =	432,690.3 N
X =	685,856.8 E	X =	644,672.8 E
LAT. =	32.188842 °N	LAT. =	32.188718 °N
LONG. =	103.866166 °W	LONG. =	103.865681 °W
LTP (NAD 83 NME)		LTP (NAD 27 NME)	
Y =	427,575.0 N	Y =	427,516.3 N
X =	685,887.9 E	X =	644,703.7 E
LAT. =	32.174619 °N	LAT. =	32.174495 °N
LONG. =	103.866138 °W	LONG. =	103.865654 °W
BHL (NAD 83 NME)		BHL (NAD 27 NME)	
Y =	427,485.0 N	Y =	427,426.3 N
X =	685,888.8 E	X =	644,704.6 E
LAT. =	32.174372 °N	LAT. =	32.174247 °N
LONG. =	103.866137 °W	LONG. =	103.865652 °W
CORNER COORDINATES (NAD 83 NME)			
A - Y =	440,643.4 N	A - X =	684,967.0 E
B - Y =	438,006.2 N	B - X =	684,975.6 E
C - Y =	435,369.6 N	C - X =	684,984.2 E
D - Y =	432,737.2 N	D - X =	685,000.6 E
E - Y =	430,100.4 N	E - X =	685,017.0 E
F - Y =	427,463.7 N	F - X =	685,050.8 E
G - Y =	440,659.4 N	G - X =	686,305.3 E
H - Y =	438,023.6 N	H - X =	686,313.8 E
I - Y =	435,389.4 N	I - X =	686,321.7 E
J - Y =	432,755.8 N	J - X =	686,337.0 E
K - Y =	430,118.7 N	K - X =	686,353.1 E
L - Y =	427,481.8 N	L - X =	686,386.5 E
CORNER COORDINATES (NAD 27 NME)			
A - Y =	440,584.3 N	A - X =	643,783.3 E
B - Y =	437,947.2 N	B - X =	643,791.8 E
C - Y =	435,310.6 N	C - X =	643,800.3 E
D - Y =	432,678.3 N	D - X =	643,816.6 E
E - Y =	430,041.6 N	E - X =	643,832.9 E
F - Y =	427,404.9 N	F - X =	643,866.6 E
G - Y =	440,600.4 N	G - X =	645,121.6 E
H - Y =	437,964.6 N	H - X =	645,129.9 E
I - Y =	435,330.5 N	I - X =	645,137.8 E
J - Y =	432,696.9 N	J - X =	645,153.0 E
K - Y =	430,060.0 N	K - X =	645,169.0 E
L - Y =	427,423.1 N	L - X =	645,202.3 E

KT

618.013003.08-51

\\618.013 XTO Energy - NM\003 Poker Lake Unit\08 - PLU 22 DTD - EDDY\Wells\51 - PLU 22 DTD - 154H\DWG\154H C-102.dwg

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

XTO Energy Inc.
POKER LAKE UNIT 22 DTD 154H
Projected TD: 23918' MD / 11147' TVD
SHL: 414' FNL & 1916' FEL , Section 22, T24S, R30E
BHL: 2627' FNL & 1833' FEL , Section 34, T24S, R30E
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 (TVD)	Water/Oil/Gas
Rustler	1131'	Water
Top of Salt	1534'	Water
Base of Salt	3727'	Water
Delaware	3921'	Water
Brushy Canyon	6467'	Water/Oil/Gas
Bone Spring	7791'	Water
Avalon	8484'	Water/Oil/Gas
1st Bone Spring	8500'	Water/Oil/Gas
2nd Bone Spring	9085'	Water/Oil/Gas
3rd Bone Spring	9911'	Water/Oil/Gas
Wolfcamp	11096'	Water/Oil/Gas
Wolfcamp X	11117'	Water/Oil/Gas
Target/Land Curve	11147'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 9.625 inch casing @ 1231' (303' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 10240' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 23918 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9940 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 1231'	9.625	40	J-55	BTC	New	1.62	5.11	12.79
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.25	2.92	1.83
8.75	4000' – 10240'	7.625	29.7	HC L-80	Flush Joint	New	1.63	2.33	2.19
6.75	0' – 10140'	5.5	20	RY P-110	Freedom	New	1.05	1.83	2.02
6.75	10140' - 23918'	5.5	20	RY P-110	Talon	New	1.05	1.67	2.02

· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry

· 7.625 Collapse analyzed using 50% evacuation based on regional experience.

· 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

Wellhead:

XTO will utilize a multibowl system

4. Cement Program

Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 1231'

Lead: 310 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft³/sx, 10.13 gal/sx water)

Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 10240'

1st Stage

Optional Lead: 350 sxs Class C (mixed at 10.5 ppg, 2.77 ft³/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 350 sxs Class C (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 6467

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft³/sx, 9.61 gal/sx water)

Tail: 730 sxs Class C (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)

Top of Cement: 0

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6467') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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

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

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

Production Casing: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 23918'

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft³/sx, 15.00 gal/sx water) Top of Cement: 9940 feet

Tail: 960 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft³/sx, 8.38 gal/sx water) Top of Cement: 10440 feet

Compressives: 12-hr = 800 psi 24 hr = 1500 psi

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

5. Pressure Control Equipment

Once the permanent WH is installed on the surface casing, the blow out preventer equipment (BOP) will consist of a minimum 5M Hydril and a minimum 10M Double Ram BOP.

All BOP testing will be done by an independent service company.

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 will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production

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. Based on discussions with the BLM on February 27th 2020, 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. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW	Viscosity	Fluid Loss
			(ppg)	(sec/qt)	(cc)
0' - 1231'	12.25	FW/Native	8.4-8.9	35-40	NC
1231' - 3827'	8.75	Sat Brine	10.0 -10.5	30-32	NC
3827' - 10240'	8.75	FW / Cut Brine / Direct Emulsion	10.0 -10.5	30-32	NC
10240' - 23918'	6.75	OBM	11.5-12	50-60	NC - 20

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 9-5/8" surface casing with brine solution. Cut brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 9.625 casing.

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 175 to 195 F is anticipated. 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 could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 6666 psi.

10. Anticipated Starting Date and Duration of Operations

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



U. S. Steel Tubular Products

5.500" 20.00lb/ft (0.361" Wall) P110 RY USS-FREEDOM HTQ[®]

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MECHANICAL PROPERTIES	Pipe	USS-FREEDOM HTQ [®]		--
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-FREEDOM HTQ [®]		--
Outside Diameter	5.500	6.300	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	4.778	4.778	in.	--
Standard Drift	4.653	4.653	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	20.00	--	lb/ft	--
Plain End Weight	19.83	--	lb/ft	--
SECTION AREA	Pipe	USS-FREEDOM HTQ [®]		--
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	--
PERFORMANCE	Pipe	USS-FREEDOM HTQ [®]		--
Minimum Collapse Pressure	11,100	11,100	psi	--
Minimum Internal Yield Pressure	12,640	12,640	psi	--
Minimum Pipe Body Yield Strength	641,000	--	lb	--
Joint Strength	--	641,000	lb	--
Compression Rating	--	641,000	lb	--
Reference Length [4]	--	21,370	ft	--
Maximum Uniaxial Bend Rating [2]	--	91.7	deg/100 ft	--
MAKE-UP DATA	Pipe	USS-FREEDOM HTQ [®]		--
Make-Up Loss	--	4.13	in.	--
Minimum Make-Up Torque [3]	--	15,000	ft-lb	--
Maximum Make-Up Torque [3]	--	21,000	ft-lb	--
Maximum Operating Torque[3]	--	29,500	ft-lb	--

UNCONTROLLED

Notes

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
4. Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

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U. S. Steel Tubular Products

5.500" 20.00lb/ft (0.361" Wall) P110 RY USS-TALON HTQ™ RD

11/29/2021 4:16:04 PM

MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		--
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	4.778	4.778	in.	--
Standard Drift	4.653	4.653	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	20.00	--	lb/ft	--
Plain End Weight	19.83	--	lb/ft	--
SECTION AREA	Pipe	USS-TALON HTQ™ RD		--
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		--
Minimum Collapse Pressure	11,100	11,100	psi	--
Minimum Internal Yield Pressure	12,640	12,640	psi	--
Minimum Pipe Body Yield Strength	641,000	--	lb	--
Joint Strength	--	641,000	lb	--
Compression Rating	--	641,000	lb	--
Reference Length	--	21,370	ft	[5]
Maximum Uniaxial Bend Rating	--	91.7	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	17,000	ft-lb	[4]
Maximum Make-Up Torque	--	20,000	ft-lb	[4]
Maximum Operating Torque	--	39,500	ft-lb	[4]

UNCONTROLLED

Notes

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
3. Uniaxial bend rating shown is structural only.
4. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
6. Coupling must meet minimum mechanical properties of the pipe.

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Well Plan Report - Poker Lake Unit 22 DTD South 154H

Measured Depth: 23917.56 ft

TVD RKB: 11147.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 440179.60 ft

Easting: 644545.10 ft

RKB: 3446.00 ft

Ground Level: 3414.00 ft

North Reference: Grid

Convergence Angle: 0.25 Deg

Plan Sections Poker Lake Unit 22 DTD South 154H

Measured			TVD			Build	Turn	Dogleg		
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate		
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00		
1271.33	3.43	14.43	1271.23	4.96	1.28	2.00	0.00	2.00		
6538.29	3.43	14.43	6528.77	309.84	79.72	0.00	0.00	0.00		
6709.62	0.00	0.00	6700.00	314.80	81.00	-2.00	0.00	2.00		
10440.42	0.00	0.00	10430.80	314.80	81.00	0.00	0.00	0.00		
11565.42	90.00	179.66	11147.00	-401.38	85.29	8.00	0.00	8.00		
23827.54	90.00	179.66	11147.00	-12663.28	158.69	0.00	0.00	0.00	LTP 7	
23917.56	90.00	179.66	11147.00	-12753.30	159.23	0.00	0.00	0.00	BHL 7	

Position Uncertainty Poker Lake Unit 22 DTD South 154H

Measured			TVD	Highside		Lateral		Vertical		Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used

(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.310	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.347	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.375	0.000	0.000	2.503	1.701	127.419	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.407	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.444	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.486	0.000	0.000	3.642	2.775	128.423	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.502	0.000	2.532	0.000	0.000	4.014	3.133	128.602	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.058	0.000	3.865	0.000	2.582	0.000	0.000	4.384	3.491	128.744	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.419	0.000	4.228	0.000	2.636	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	14.430	1199.980	5.150	0.000	4.386	0.000	2.692	0.000	0.000	5.299	4.207	127.051	MWD+IFR1+MS
1271.333	3.427	14.430	1271.231	5.545	0.000	4.641	0.000	2.734	0.000	0.000	5.696	4.465	125.422	MWD+IFR1+MS
1300.000	3.427	14.430	1299.847	5.636	0.000	4.738	0.000	2.750	0.000	0.000	5.784	4.566	125.306	MWD+IFR1+MS
1400.000	3.427	14.430	1399.668	5.947	0.000	5.092	0.000	2.813	0.000	0.000	6.093	4.926	125.507	MWD+IFR1+MS
1500.000	3.427	14.430	1499.489	6.280	0.000	5.466	0.000	2.879	0.000	0.000	6.434	5.292	126.365	MWD+IFR1+MS
1600.000	3.427	14.430	1599.310	6.616	0.000	5.837	0.000	2.947	0.000	0.000	6.778	5.656	127.151	MWD+IFR1+MS
1700.000	3.427	14.430	1699.131	6.955	0.000	6.208	0.000	3.017	0.000	0.000	7.124	6.020	127.873	MWD+IFR1+MS
1800.000	3.427	14.430	1798.953	7.296	0.000	6.577	0.000	3.090	0.000	0.000	7.471	6.383	128.536	MWD+IFR1+MS
1900.000	3.427	14.430	1898.774	7.638	0.000	6.945	0.000	3.165	0.000	0.000	7.820	6.745	129.147	MWD+IFR1+MS
2000.000	3.427	14.430	1998.595	7.983	0.000	7.312	0.000	3.241	0.000	0.000	8.170	7.106	129.711	MWD+IFR1+MS
2100.000	3.427	14.430	2098.416	8.328	0.000	7.678	0.000	3.320	0.000	0.000	8.521	7.467	130.231	MWD+IFR1+MS
2200.000	3.427	14.430	2198.238	8.675	0.000	8.043	0.000	3.400	0.000	0.000	8.872	7.828	130.712	MWD+IFR1+MS
2300.000	3.427	14.430	2298.059	9.023	0.000	8.408	0.000	3.481	0.000	0.000	9.225	8.188	131.158	MWD+IFR1+MS
2400.000	3.427	14.430	2397.880	9.372	0.000	8.773	0.000	3.564	0.000	0.000	9.578	8.549	131.571	MWD+IFR1+MS
2500.000	3.427	14.430	2497.701	9.722	0.000	9.137	0.000	3.649	0.000	0.000	9.932	8.909	131.954	MWD+IFR1+MS
2600.000	3.427	14.430	2597.522	10.073	0.000	9.500	0.000	3.735	0.000	0.000	10.286	9.268	132.311	MWD+IFR1+MS
2700.000	3.427	14.430	2697.344	10.424	0.000	9.864	0.000	3.822	0.000	0.000	10.641	9.628	132.643	MWD+IFR1+MS
2800.000	3.427	14.430	2797.165	10.776	0.000	10.226	0.000	3.911	0.000	0.000	10.996	9.988	132.952	MWD+IFR1+MS
2900.000	3.427	14.430	2896.986	11.129	0.000	10.589	0.000	4.001	0.000	0.000	11.352	10.347	133.240	MWD+IFR1+MS
3000.000	3.427	14.430	2996.807	11.482	0.000	10.951	0.000	4.092	0.000	0.000	11.707	10.707	133.509	MWD+IFR1+MS
3100.000	3.427	14.430	3096.628	11.835	0.000	11.314	0.000	4.185	0.000	0.000	12.063	11.066	133.760	MWD+IFR1+MS

3200.000	3.427	14.430	3196.450	12.189	0.000	11.676	0.000	4.278	0.000	0.000	12.420	11.426	133.996	MWD+IFR1+MS
3300.000	3.427	14.430	3296.271	12.544	0.000	12.037	0.000	4.374	0.000	0.000	12.776	11.785	134.216	MWD+IFR1+MS
3400.000	3.427	14.430	3396.092	12.898	0.000	12.399	0.000	4.470	0.000	0.000	13.133	12.144	134.422	MWD+IFR1+MS
3500.000	3.427	14.430	3495.913	13.254	0.000	12.760	0.000	4.568	0.000	0.000	13.490	12.504	134.615	MWD+IFR1+MS
3600.000	3.427	14.430	3595.735	13.609	0.000	13.122	0.000	4.668	0.000	0.000	13.847	12.863	134.796	MWD+IFR1+MS
3700.000	3.427	14.430	3695.556	13.965	0.000	13.483	0.000	4.768	0.000	0.000	14.204	13.222	134.966	MWD+IFR1+MS
3800.000	3.427	14.430	3795.377	14.321	0.000	13.844	0.000	4.870	0.000	0.000	14.562	13.582	-44.875	MWD+IFR1+MS
3900.000	3.427	14.430	3895.198	14.677	0.000	14.205	0.000	4.974	0.000	0.000	14.919	13.941	-44.725	MWD+IFR1+MS
4000.000	3.427	14.430	3995.019	15.033	0.000	14.565	0.000	5.079	0.000	0.000	15.277	14.300	-44.584	MWD+IFR1+MS
4100.000	3.427	14.430	4094.841	15.390	0.000	14.926	0.000	5.185	0.000	0.000	15.635	14.659	-44.452	MWD+IFR1+MS
4200.000	3.427	14.430	4194.662	15.747	0.000	15.287	0.000	5.293	0.000	0.000	15.993	15.018	-44.328	MWD+IFR1+MS
4300.000	3.427	14.430	4294.483	16.104	0.000	15.647	0.000	5.403	0.000	0.000	16.351	15.378	-44.212	MWD+IFR1+MS
4400.000	3.427	14.430	4394.304	16.461	0.000	16.008	0.000	5.514	0.000	0.000	16.709	15.737	-44.102	MWD+IFR1+MS
4500.000	3.427	14.430	4494.125	16.818	0.000	16.368	0.000	5.627	0.000	0.000	17.067	16.096	-43.999	MWD+IFR1+MS
4600.000	3.427	14.430	4593.947	17.176	0.000	16.728	0.000	5.741	0.000	0.000	17.425	16.455	-43.902	MWD+IFR1+MS
4700.000	3.427	14.430	4693.768	17.534	0.000	17.088	0.000	5.857	0.000	0.000	17.783	16.814	-43.811	MWD+IFR1+MS
4800.000	3.427	14.430	4793.589	17.891	0.000	17.449	0.000	5.975	0.000	0.000	18.142	17.174	-43.726	MWD+IFR1+MS
4900.000	3.427	14.430	4893.410	18.249	0.000	17.809	0.000	6.095	0.000	0.000	18.500	17.533	-43.646	MWD+IFR1+MS
5000.000	3.427	14.430	4993.231	18.607	0.000	18.169	0.000	6.216	0.000	0.000	18.859	17.892	-43.571	MWD+IFR1+MS
5100.000	3.427	14.430	5093.053	18.965	0.000	18.529	0.000	6.340	0.000	0.000	19.217	18.251	-43.500	MWD+IFR1+MS
5200.000	3.427	14.430	5192.874	19.324	0.000	18.889	0.000	6.465	0.000	0.000	19.576	18.610	-43.434	MWD+IFR1+MS
5300.000	3.427	14.430	5292.695	19.682	0.000	19.248	0.000	6.592	0.000	0.000	19.934	18.970	-43.373	MWD+IFR1+MS
5400.000	3.427	14.430	5392.516	20.040	0.000	19.608	0.000	6.721	0.000	0.000	20.293	19.329	-43.315	MWD+IFR1+MS
5500.000	3.427	14.430	5492.338	20.399	0.000	19.968	0.000	6.852	0.000	0.000	20.652	19.688	-43.261	MWD+IFR1+MS
5600.000	3.427	14.430	5592.159	20.758	0.000	20.328	0.000	6.985	0.000	0.000	21.011	20.047	-43.210	MWD+IFR1+MS
5700.000	3.427	14.430	5691.980	21.116	0.000	20.688	0.000	7.120	0.000	0.000	21.369	20.406	-43.164	MWD+IFR1+MS
5800.000	3.427	14.430	5791.801	21.475	0.000	21.047	0.000	7.257	0.000	0.000	21.728	20.766	-43.120	MWD+IFR1+MS
5900.000	3.427	14.430	5891.622	21.834	0.000	21.407	0.000	7.397	0.000	0.000	22.087	21.125	-43.079	MWD+IFR1+MS
6000.000	3.427	14.430	5991.444	22.193	0.000	21.767	0.000	7.538	0.000	0.000	22.446	21.484	-43.042	MWD+IFR1+MS
6100.000	3.427	14.430	6091.265	22.552	0.000	22.126	0.000	7.682	0.000	0.000	22.805	21.843	-43.007	MWD+IFR1+MS
6200.000	3.427	14.430	6191.086	22.911	0.000	22.486	0.000	7.828	0.000	0.000	23.164	22.203	-42.975	MWD+IFR1+MS
6300.000	3.427	14.430	6290.907	23.270	0.000	22.845	0.000	7.976	0.000	0.000	23.523	22.562	-42.946	MWD+IFR1+MS
6400.000	3.427	14.430	6390.728	23.629	0.000	23.205	0.000	8.126	0.000	0.000	23.882	22.921	-42.919	MWD+IFR1+MS
6500.000	3.427	14.430	6490.550	23.988	0.000	23.564	0.000	8.279	0.000	0.000	24.241	23.280	-42.895	MWD+IFR1+MS

6538.288	3.427	14.430	6528.769	24.124	0.000	23.700	0.000	8.338	0.000	0.000	24.374	23.418	-42.945	MWD+IFR1+MS
6600.000	2.192	14.430	6590.406	24.346	0.000	23.917	0.000	8.434	0.000	0.000	24.593	23.639	-43.120	MWD+IFR1+MS
6709.621	0.000	0.000	6700.000	24.566	0.000	24.544	0.000	8.606	0.000	0.000	25.050	24.050	134.354	MWD+IFR1+MS
6800.000	0.000	0.000	6790.379	24.922	0.000	24.863	0.000	8.748	0.000	0.000	25.396	24.378	133.340	MWD+IFR1+MS
6900.000	0.000	0.000	6890.379	25.278	0.000	25.216	0.000	8.908	0.000	0.000	25.750	24.733	133.260	MWD+IFR1+MS
7000.000	0.000	0.000	6990.379	25.634	0.000	25.570	0.000	9.070	0.000	0.000	26.106	25.088	133.185	MWD+IFR1+MS
7100.000	0.000	0.000	7090.379	25.991	0.000	25.924	0.000	9.235	0.000	0.000	26.461	25.444	133.112	MWD+IFR1+MS
7200.000	0.000	0.000	7190.379	26.348	0.000	26.278	0.000	9.402	0.000	0.000	26.817	25.799	133.041	MWD+IFR1+MS
7300.000	0.000	0.000	7290.379	26.704	0.000	26.632	0.000	9.572	0.000	0.000	27.172	26.155	132.972	MWD+IFR1+MS
7400.000	0.000	0.000	7390.379	27.061	0.000	26.987	0.000	9.745	0.000	0.000	27.528	26.510	132.905	MWD+IFR1+MS
7500.000	0.000	0.000	7490.379	27.418	0.000	27.341	0.000	9.920	0.000	0.000	27.884	26.866	132.839	MWD+IFR1+MS
7600.000	0.000	0.000	7590.379	27.775	0.000	27.696	0.000	10.098	0.000	0.000	28.240	27.222	132.775	MWD+IFR1+MS
7700.000	0.000	0.000	7690.379	28.132	0.000	28.051	0.000	10.279	0.000	0.000	28.596	27.577	132.713	MWD+IFR1+MS
7800.000	0.000	0.000	7790.379	28.489	0.000	28.405	0.000	10.462	0.000	0.000	28.952	27.933	132.653	MWD+IFR1+MS
7900.000	0.000	0.000	7890.379	28.846	0.000	28.760	0.000	10.648	0.000	0.000	29.308	28.289	132.594	MWD+IFR1+MS
8000.000	0.000	0.000	7990.379	29.203	0.000	29.115	0.000	10.837	0.000	0.000	29.664	28.645	132.536	MWD+IFR1+MS
8100.000	0.000	0.000	8090.379	29.560	0.000	29.470	0.000	11.028	0.000	0.000	30.020	29.001	132.480	MWD+IFR1+MS
8200.000	0.000	0.000	8190.379	29.917	0.000	29.825	0.000	11.223	0.000	0.000	30.376	29.357	132.425	MWD+IFR1+MS
8300.000	0.000	0.000	8290.379	30.274	0.000	30.181	0.000	11.420	0.000	0.000	30.733	29.714	132.371	MWD+IFR1+MS
8400.000	0.000	0.000	8390.379	30.631	0.000	30.536	0.000	11.620	0.000	0.000	31.089	30.070	132.319	MWD+IFR1+MS
8500.000	0.000	0.000	8490.379	30.988	0.000	30.891	0.000	11.822	0.000	0.000	31.445	30.426	132.268	MWD+IFR1+MS
8600.000	0.000	0.000	8590.379	31.346	0.000	31.247	0.000	12.028	0.000	0.000	31.802	30.782	132.218	MWD+IFR1+MS
8700.000	0.000	0.000	8690.379	31.703	0.000	31.602	0.000	12.236	0.000	0.000	32.158	31.139	132.169	MWD+IFR1+MS
8800.000	0.000	0.000	8790.379	32.060	0.000	31.958	0.000	12.447	0.000	0.000	32.515	31.495	132.121	MWD+IFR1+MS
8900.000	0.000	0.000	8890.379	32.417	0.000	32.313	0.000	12.661	0.000	0.000	32.871	31.852	132.075	MWD+IFR1+MS
9000.000	0.000	0.000	8990.379	32.775	0.000	32.669	0.000	12.878	0.000	0.000	33.228	32.208	132.029	MWD+IFR1+MS
9100.000	0.000	0.000	9090.379	33.132	0.000	33.025	0.000	13.098	0.000	0.000	33.585	32.565	131.985	MWD+IFR1+MS
9200.000	0.000	0.000	9190.379	33.489	0.000	33.381	0.000	13.321	0.000	0.000	33.941	32.921	131.941	MWD+IFR1+MS
9300.000	0.000	0.000	9290.379	33.847	0.000	33.737	0.000	13.546	0.000	0.000	34.298	33.278	131.898	MWD+IFR1+MS
9400.000	0.000	0.000	9390.379	34.204	0.000	34.093	0.000	13.775	0.000	0.000	34.655	33.635	131.856	MWD+IFR1+MS
9500.000	0.000	0.000	9490.379	34.562	0.000	34.449	0.000	14.006	0.000	0.000	35.012	33.991	131.815	MWD+IFR1+MS
9600.000	0.000	0.000	9590.379	34.919	0.000	34.805	0.000	14.241	0.000	0.000	35.368	34.348	131.775	MWD+IFR1+MS
9700.000	0.000	0.000	9690.379	35.277	0.000	35.161	0.000	14.478	0.000	0.000	35.725	34.705	131.736	MWD+IFR1+MS
9800.000	0.000	0.000	9790.379	35.634	0.000	35.517	0.000	14.718	0.000	0.000	36.082	35.062	131.698	MWD+IFR1+MS

9900.000	0.000	0.000	9890.379	35.992	0.000	35.873	0.000	14.961	0.000	0.000	36.439	35.418	131.660	MWD+IFR1+MS
10000.000	0.000	0.000	9990.379	36.349	0.000	36.229	0.000	15.208	0.000	0.000	36.796	35.775	131.623	MWD+IFR1+MS
10100.000	0.000	0.000	10090.379	36.707	0.000	36.585	0.000	15.457	0.000	0.000	37.153	36.132	131.587	MWD+IFR1+MS
10200.000	0.000	0.000	10190.379	37.064	0.000	36.942	0.000	15.709	0.000	0.000	37.510	36.489	131.551	MWD+IFR1+MS
10300.000	0.000	0.000	10290.379	37.422	0.000	37.298	0.000	15.964	0.000	0.000	37.867	36.846	131.516	MWD+IFR1+MS
10400.000	0.000	0.000	10390.379	37.780	0.000	37.654	0.000	16.222	0.000	0.000	38.224	37.203	131.482	MWD+IFR1+MS
10440.421	0.000	0.000	10430.800	37.923	0.000	37.797	0.000	16.327	0.000	0.000	38.365	37.347	131.458	MWD+IFR1+MS
10500.000	4.766	179.657	10490.310	37.959	0.000	38.001	-0.000	16.482	0.000	0.000	38.580	37.562	130.525	MWD+IFR1+MS
10600.000	12.766	179.657	10589.062	38.197	0.000	38.309	-0.000	16.782	0.000	0.000	39.402	38.039	115.881	MWD+IFR1+MS
10700.000	20.766	179.657	10684.733	38.256	0.000	38.603	-0.000	17.229	0.000	0.000	40.587	38.419	106.392	MWD+IFR1+MS
10800.000	28.766	179.657	10775.462	37.765	0.000	38.879	-0.000	17.874	0.000	0.000	41.670	38.722	102.764	MWD+IFR1+MS
10900.000	36.766	179.657	10859.482	36.796	0.000	39.132	-0.000	18.752	0.000	0.000	42.591	38.984	101.077	MWD+IFR1+MS
11000.000	44.766	179.657	10935.158	35.449	0.000	39.361	-0.000	19.869	0.000	0.000	43.334	39.215	100.250	MWD+IFR1+MS
11100.000	52.766	179.657	11001.018	33.854	0.000	39.565	-0.000	21.202	0.000	0.000	43.897	39.416	99.892	MWD+IFR1+MS
11200.000	60.766	179.657	11055.779	32.178	0.000	39.742	-0.000	22.708	0.000	0.000	44.291	39.588	99.824	MWD+IFR1+MS
11300.000	68.766	179.657	11098.375	30.625	0.000	39.892	-0.000	24.333	0.000	0.000	44.537	39.730	99.946	MWD+IFR1+MS
11400.000	76.766	179.657	11127.978	29.425	0.000	40.014	-0.000	26.019	0.000	0.000	44.666	39.844	100.180	MWD+IFR1+MS
11500.000	84.766	179.657	11144.011	28.801	0.000	40.106	-0.000	27.709	0.000	0.000	44.714	39.929	100.441	MWD+IFR1+MS
11565.421	90.000	179.657	11146.997	28.243	0.000	40.148	-0.000	28.243	0.000	0.000	44.723	39.968	100.563	MWD+IFR1+MS
11600.000	90.000	179.657	11146.997	28.309	0.000	40.167	-0.000	28.309	0.000	0.000	44.726	39.986	100.618	MWD+IFR1+MS
11700.000	90.000	179.657	11146.997	28.457	0.000	40.234	-0.000	28.457	0.000	0.000	44.735	40.049	100.811	MWD+IFR1+MS
11800.000	90.000	179.657	11146.997	28.628	0.000	40.319	-0.000	28.628	0.000	0.000	44.745	40.129	101.046	MWD+IFR1+MS
11900.000	90.000	179.657	11146.997	28.821	0.000	40.418	-0.000	28.821	0.000	0.000	44.756	40.222	101.320	MWD+IFR1+MS
12000.000	90.000	179.657	11146.997	29.033	0.000	40.531	-0.000	29.033	0.000	0.000	44.769	40.329	101.638	MWD+IFR1+MS
12100.000	90.000	179.657	11146.997	29.264	0.000	40.658	-0.000	29.264	0.000	0.000	44.783	40.449	102.005	MWD+IFR1+MS
12200.000	90.000	179.657	11146.997	29.515	0.000	40.799	-0.000	29.515	0.000	0.000	44.798	40.583	102.428	MWD+IFR1+MS
12300.000	90.000	179.657	11146.997	29.784	0.000	40.954	-0.000	29.784	0.000	0.000	44.815	40.729	102.914	MWD+IFR1+MS
12400.000	90.000	179.657	11146.997	30.071	0.000	41.122	-0.000	30.071	0.000	0.000	44.834	40.887	103.473	MWD+IFR1+MS
12500.000	90.000	179.657	11146.997	30.376	0.000	41.304	-0.000	30.376	0.000	0.000	44.856	41.057	104.118	MWD+IFR1+MS
12600.000	90.000	179.657	11146.997	30.698	0.000	41.500	-0.000	30.698	0.000	0.000	44.879	41.239	104.863	MWD+IFR1+MS
12700.000	90.000	179.657	11146.997	31.036	0.000	41.708	-0.000	31.036	0.000	0.000	44.906	41.432	105.728	MWD+IFR1+MS
12800.000	90.000	179.657	11146.997	31.390	0.000	41.930	-0.000	31.390	0.000	0.000	44.935	41.635	106.737	MWD+IFR1+MS
12900.000	90.000	179.657	11146.997	31.760	0.000	42.164	-0.000	31.760	0.000	0.000	44.969	41.847	107.920	MWD+IFR1+MS
13000.000	90.000	179.657	11146.997	32.145	0.000	42.411	-0.000	32.145	0.000	0.000	45.008	42.068	109.316	MWD+IFR1+MS

13100.000	90.000	179.657	11146.997	32.544	0.000	42.670	-0.000	32.544	0.000	0.000	45.052	42.296	110.971	MWD+IFR1+MS
13200.000	90.000	179.657	11146.997	32.957	0.000	42.941	-0.000	32.957	0.000	0.000	45.104	42.528	112.945	MWD+IFR1+MS
13300.000	90.000	179.657	11146.997	33.383	0.000	43.224	-0.000	33.383	0.000	0.000	45.166	42.764	115.306	MWD+IFR1+MS
13400.000	90.000	179.657	11146.997	33.822	0.000	43.519	-0.000	33.822	0.000	0.000	45.240	42.999	118.131	MWD+IFR1+MS
13500.000	90.000	179.657	11146.997	34.274	0.000	43.825	-0.000	34.274	0.000	0.000	45.330	43.231	121.488	MWD+IFR1+MS
13600.000	90.000	179.657	11146.997	34.737	0.000	44.142	-0.000	34.737	0.000	0.000	45.440	43.454	125.413	MWD+IFR1+MS
13700.000	90.000	179.657	11146.997	35.212	0.000	44.470	-0.000	35.212	0.000	0.000	45.576	43.663	129.869	MWD+IFR1+MS
13800.000	90.000	179.657	11146.997	35.697	0.000	44.809	-0.000	35.697	0.000	0.000	45.742	43.853	134.711	MWD+IFR1+MS
13900.000	90.000	179.657	11146.997	36.193	0.000	45.158	-0.000	36.193	0.000	0.000	45.941	44.021	-40.316	MWD+IFR1+MS
14000.000	90.000	179.657	11146.997	36.700	0.000	45.518	-0.000	36.700	0.000	0.000	46.174	44.165	-35.509	MWD+IFR1+MS
14100.000	90.000	179.657	11146.997	37.215	0.000	45.887	-0.000	37.215	0.000	0.000	46.441	44.287	-31.108	MWD+IFR1+MS
14200.000	90.000	179.657	11146.997	37.741	0.000	46.266	-0.000	37.741	0.000	0.000	46.737	44.389	-27.247	MWD+IFR1+MS
14300.000	90.000	179.657	11146.997	38.275	0.000	46.655	-0.000	38.275	0.000	0.000	47.060	44.475	-23.948	MWD+IFR1+MS
14400.000	90.000	179.657	11146.997	38.817	0.000	47.053	-0.000	38.817	0.000	0.000	47.404	44.550	-21.171	MWD+IFR1+MS
14500.000	90.000	179.657	11146.997	39.368	0.000	47.460	-0.000	39.368	0.000	0.000	47.768	44.614	-18.844	MWD+IFR1+MS
14600.000	90.000	179.657	11146.997	39.927	0.000	47.875	-0.000	39.927	0.000	0.000	48.148	44.671	-16.892	MWD+IFR1+MS
14700.000	90.000	179.657	11146.997	40.493	0.000	48.299	-0.000	40.493	0.000	0.000	48.543	44.723	-15.246	MWD+IFR1+MS
14800.000	90.000	179.657	11146.997	41.066	0.000	48.732	-0.000	41.066	0.000	0.000	48.951	44.771	-13.851	MWD+IFR1+MS
14900.000	90.000	179.657	11146.997	41.646	0.000	49.173	-0.000	41.646	0.000	0.000	49.371	44.815	-12.658	MWD+IFR1+MS
15000.000	90.000	179.657	11146.997	42.233	0.000	49.621	-0.000	42.233	0.000	0.000	49.802	44.857	-11.632	MWD+IFR1+MS
15100.000	90.000	179.657	11146.997	42.826	0.000	50.078	-0.000	42.826	0.000	0.000	50.243	44.897	-10.741	MWD+IFR1+MS
15200.000	90.000	179.657	11146.997	43.425	0.000	50.541	-0.000	43.425	0.000	0.000	50.693	44.935	-9.964	MWD+IFR1+MS
15300.000	90.000	179.657	11146.997	44.030	0.000	51.012	-0.000	44.030	0.000	0.000	51.153	44.973	-9.281	MWD+IFR1+MS
15400.000	90.000	179.657	11146.997	44.641	0.000	51.490	-0.000	44.641	0.000	0.000	51.620	45.009	-8.676	MWD+IFR1+MS
15500.000	90.000	179.657	11146.997	45.257	0.000	51.975	-0.000	45.257	0.000	0.000	52.096	45.045	-8.138	MWD+IFR1+MS
15600.000	90.000	179.657	11146.997	45.878	0.000	52.467	-0.000	45.878	0.000	0.000	52.580	45.081	-7.658	MWD+IFR1+MS
15700.000	90.000	179.657	11146.997	46.504	0.000	52.965	-0.000	46.504	0.000	0.000	53.071	45.116	-7.226	MWD+IFR1+MS
15800.000	90.000	179.657	11146.997	47.135	0.000	53.470	-0.000	47.135	0.000	0.000	53.569	45.152	-6.836	MWD+IFR1+MS
15900.000	90.000	179.657	11146.997	47.770	0.000	53.980	-0.000	47.770	0.000	0.000	54.074	45.187	-6.482	MWD+IFR1+MS
16000.000	90.000	179.657	11146.997	48.410	0.000	54.497	-0.000	48.410	0.000	0.000	54.585	45.222	-6.161	MWD+IFR1+MS
16100.000	90.000	179.657	11146.997	49.054	0.000	55.019	-0.000	49.054	0.000	0.000	55.102	45.257	-5.867	MWD+IFR1+MS
16200.000	90.000	179.657	11146.997	49.702	0.000	55.547	-0.000	49.702	0.000	0.000	55.626	45.293	-5.598	MWD+IFR1+MS
16300.000	90.000	179.657	11146.997	50.354	0.000	56.081	-0.000	50.354	0.000	0.000	56.155	45.328	-5.351	MWD+IFR1+MS
16400.000	90.000	179.657	11146.997	51.010	0.000	56.620	-0.000	51.010	0.000	0.000	56.690	45.364	-5.123	MWD+IFR1+MS

16500.000	90.000	179.657	11146.997	51.669	0.000	57.164	-0.000	51.669	0.000	0.000	57.231	45.400	-4.912	MWD+IFR1+MS
16600.000	90.000	179.657	11146.997	52.332	0.000	57.713	-0.000	52.332	0.000	0.000	57.777	45.437	-4.717	MWD+IFR1+MS
16700.000	90.000	179.657	11146.997	52.998	0.000	58.267	-0.000	52.998	0.000	0.000	58.328	45.473	-4.536	MWD+IFR1+MS
16800.000	90.000	179.657	11146.997	53.667	0.000	58.825	-0.000	53.667	0.000	0.000	58.884	45.510	-4.367	MWD+IFR1+MS
16900.000	90.000	179.657	11146.997	54.340	0.000	59.389	-0.000	54.340	0.000	0.000	59.444	45.548	-4.210	MWD+IFR1+MS
17000.000	90.000	179.657	11146.997	55.015	0.000	59.956	-0.000	55.015	0.000	0.000	60.010	45.586	-4.063	MWD+IFR1+MS
17100.000	90.000	179.657	11146.997	55.693	0.000	60.528	-0.000	55.693	0.000	0.000	60.580	45.624	-3.925	MWD+IFR1+MS
17200.000	90.000	179.657	11146.997	56.374	0.000	61.105	-0.000	56.374	0.000	0.000	61.154	45.662	-3.796	MWD+IFR1+MS
17300.000	90.000	179.657	11146.997	57.058	0.000	61.685	-0.000	57.058	0.000	0.000	61.732	45.701	-3.675	MWD+IFR1+MS
17400.000	90.000	179.657	11146.997	57.744	0.000	62.270	-0.000	57.744	0.000	0.000	62.315	45.741	-3.561	MWD+IFR1+MS
17500.000	90.000	179.657	11146.997	58.433	0.000	62.858	-0.000	58.433	0.000	0.000	62.902	45.781	-3.453	MWD+IFR1+MS
17600.000	90.000	179.657	11146.997	59.124	0.000	63.450	-0.000	59.124	0.000	0.000	63.492	45.821	-3.351	MWD+IFR1+MS
17700.000	90.000	179.657	11146.997	59.817	0.000	64.046	-0.000	59.817	0.000	0.000	64.087	45.862	-3.255	MWD+IFR1+MS
17800.000	90.000	179.657	11146.997	60.513	0.000	64.646	-0.000	60.513	0.000	0.000	64.685	45.903	-3.165	MWD+IFR1+MS
17900.000	90.000	179.657	11146.997	61.211	0.000	65.248	-0.000	61.211	0.000	0.000	65.286	45.945	-3.079	MWD+IFR1+MS
18000.000	90.000	179.657	11146.997	61.911	0.000	65.855	-0.000	61.911	0.000	0.000	65.891	45.987	-2.997	MWD+IFR1+MS
18100.000	90.000	179.657	11146.997	62.613	0.000	66.464	-0.000	62.613	0.000	0.000	66.499	46.029	-2.919	MWD+IFR1+MS
18200.000	90.000	179.657	11146.997	63.316	0.000	67.077	-0.000	63.316	0.000	0.000	67.111	46.072	-2.846	MWD+IFR1+MS
18300.000	90.000	179.657	11146.997	64.022	0.000	67.693	-0.000	64.022	0.000	0.000	67.726	46.116	-2.775	MWD+IFR1+MS
18400.000	90.000	179.657	11146.997	64.730	0.000	68.312	-0.000	64.730	0.000	0.000	68.344	46.160	-2.708	MWD+IFR1+MS
18500.000	90.000	179.657	11146.997	65.439	0.000	68.934	-0.000	65.439	0.000	0.000	68.964	46.204	-2.645	MWD+IFR1+MS
18600.000	90.000	179.657	11146.997	66.150	0.000	69.558	-0.000	66.150	0.000	0.000	69.588	46.249	-2.584	MWD+IFR1+MS
18700.000	90.000	179.657	11146.997	66.863	0.000	70.186	-0.000	66.863	0.000	0.000	70.215	46.295	-2.526	MWD+IFR1+MS
18800.000	90.000	179.657	11146.997	67.577	0.000	70.816	-0.000	67.577	0.000	0.000	70.844	46.341	-2.470	MWD+IFR1+MS
18900.000	90.000	179.657	11146.997	68.293	0.000	71.449	-0.000	68.293	0.000	0.000	71.476	46.387	-2.417	MWD+IFR1+MS
19000.000	90.000	179.657	11146.997	69.010	0.000	72.084	-0.000	69.010	0.000	0.000	72.111	46.434	-2.366	MWD+IFR1+MS
19100.000	90.000	179.657	11146.997	69.729	0.000	72.722	-0.000	69.729	0.000	0.000	72.748	46.481	-2.317	MWD+IFR1+MS
19200.000	90.000	179.657	11146.997	70.449	0.000	73.363	-0.000	70.449	0.000	0.000	73.388	46.529	-2.270	MWD+IFR1+MS
19300.000	90.000	179.657	11146.997	71.171	0.000	74.006	-0.000	71.171	0.000	0.000	74.030	46.578	-2.225	MWD+IFR1+MS
19400.000	90.000	179.657	11146.997	71.894	0.000	74.651	-0.000	71.894	0.000	0.000	74.674	46.626	-2.182	MWD+IFR1+MS
19500.000	90.000	179.657	11146.997	72.618	0.000	75.298	-0.000	72.618	0.000	0.000	75.321	46.676	-2.141	MWD+IFR1+MS
19600.000	90.000	179.657	11146.997	73.343	0.000	75.947	-0.000	73.343	0.000	0.000	75.970	46.725	-2.101	MWD+IFR1+MS
19700.000	90.000	179.657	11146.997	74.070	0.000	76.599	-0.000	74.070	0.000	0.000	76.621	46.776	-2.062	MWD+IFR1+MS
19800.000	90.000	179.657	11146.997	74.797	0.000	77.253	-0.000	74.797	0.000	0.000	77.274	46.827	-2.025	MWD+IFR1+MS

19900.000	90.000	179.657	11146.997	75.526	0.000	77.909	-0.000	75.526	0.000	0.000	77.929	46.878	-1.990	MWD+IFR1+MS
20000.000	90.000	179.657	11146.997	76.256	0.000	78.567	-0.000	76.256	0.000	0.000	78.587	46.930	-1.955	MWD+IFR1+MS
20100.000	90.000	179.657	11146.997	76.988	0.000	79.226	-0.000	76.988	0.000	0.000	79.246	46.982	-1.922	MWD+IFR1+MS
20200.000	90.000	179.657	11146.997	77.720	0.000	79.888	-0.000	77.720	0.000	0.000	79.907	47.034	-1.890	MWD+IFR1+MS
20300.000	90.000	179.657	11146.997	78.453	0.000	80.551	-0.000	78.453	0.000	0.000	80.570	47.088	-1.859	MWD+IFR1+MS
20400.000	90.000	179.657	11146.997	79.187	0.000	81.217	-0.000	79.187	0.000	0.000	81.235	47.141	-1.830	MWD+IFR1+MS
20500.000	90.000	179.657	11146.997	79.922	0.000	81.884	-0.000	79.922	0.000	0.000	81.901	47.195	-1.801	MWD+IFR1+MS
20600.000	90.000	179.657	11146.997	80.658	0.000	82.552	-0.000	80.658	0.000	0.000	82.570	47.250	-1.773	MWD+IFR1+MS
20700.000	90.000	179.657	11146.997	81.395	0.000	83.223	-0.000	81.395	0.000	0.000	83.240	47.305	-1.746	MWD+IFR1+MS
20800.000	90.000	179.657	11146.997	82.133	0.000	83.895	-0.000	82.133	0.000	0.000	83.911	47.361	-1.720	MWD+IFR1+MS
20900.000	90.000	179.657	11146.997	82.872	0.000	84.568	-0.000	82.872	0.000	0.000	84.585	47.417	-1.695	MWD+IFR1+MS
21000.000	90.000	179.657	11146.997	83.611	0.000	85.244	-0.000	83.611	0.000	0.000	85.259	47.473	-1.670	MWD+IFR1+MS
21100.000	90.000	179.657	11146.997	84.352	0.000	85.920	-0.000	84.352	0.000	0.000	85.936	47.530	-1.646	MWD+IFR1+MS
21200.000	90.000	179.657	11146.997	85.093	0.000	86.598	-0.000	85.093	0.000	0.000	86.614	47.588	-1.624	MWD+IFR1+MS
21300.000	90.000	179.657	11146.997	85.835	0.000	87.278	-0.000	85.835	0.000	0.000	87.293	47.646	-1.601	MWD+IFR1+MS
21400.000	90.000	179.657	11146.997	86.578	0.000	87.959	-0.000	86.578	0.000	0.000	87.974	47.704	-1.580	MWD+IFR1+MS
21500.000	90.000	179.657	11146.997	87.321	0.000	88.642	-0.000	87.321	0.000	0.000	88.656	47.763	-1.559	MWD+IFR1+MS
21600.000	90.000	179.657	11146.997	88.065	0.000	89.325	-0.000	88.065	0.000	0.000	89.339	47.822	-1.538	MWD+IFR1+MS
21700.000	90.000	179.657	11146.997	88.810	0.000	90.010	-0.000	88.810	0.000	0.000	90.024	47.882	-1.519	MWD+IFR1+MS
21800.000	90.000	179.657	11146.997	89.556	0.000	90.697	-0.000	89.556	0.000	0.000	90.710	47.943	-1.499	MWD+IFR1+MS
21900.000	90.000	179.657	11146.997	90.302	0.000	91.384	-0.000	90.302	0.000	0.000	91.397	48.003	-1.481	MWD+IFR1+MS
22000.000	90.000	179.657	11146.997	91.049	0.000	92.073	-0.000	91.049	0.000	0.000	92.086	48.065	-1.462	MWD+IFR1+MS
22100.000	90.000	179.657	11146.997	91.796	0.000	92.763	-0.000	91.796	0.000	0.000	92.776	48.126	-1.445	MWD+IFR1+MS
22200.000	90.000	179.657	11146.997	92.544	0.000	93.454	-0.000	92.544	0.000	0.000	93.467	48.188	-1.428	MWD+IFR1+MS
22300.000	90.000	179.657	11146.997	93.293	0.000	94.147	-0.000	93.293	0.000	0.000	94.159	48.251	-1.411	MWD+IFR1+MS
22400.000	90.000	179.657	11146.997	94.042	0.000	94.840	-0.000	94.042	0.000	0.000	94.852	48.314	-1.395	MWD+IFR1+MS
22500.000	90.000	179.657	11146.997	94.792	0.000	95.535	-0.000	94.792	0.000	0.000	95.547	48.378	-1.379	MWD+IFR1+MS
22600.000	90.000	179.657	11146.997	95.543	0.000	96.231	-0.000	95.543	0.000	0.000	96.242	48.442	-1.363	MWD+IFR1+MS
22700.000	90.000	179.657	11146.997	96.294	0.000	96.927	-0.000	96.294	0.000	0.000	96.939	48.506	-1.348	MWD+IFR1+MS
22800.000	90.000	179.657	11146.997	97.045	0.000	97.625	-0.000	97.045	0.000	0.000	97.636	48.571	-1.334	MWD+IFR1+MS
22900.000	90.000	179.657	11146.997	97.797	0.000	98.324	-0.000	97.797	0.000	0.000	98.335	48.636	-1.319	MWD+IFR1+MS
23000.000	90.000	179.657	11146.997	98.550	0.000	99.024	-0.000	98.550	0.000	0.000	99.034	48.702	-1.306	MWD+IFR1+MS
23100.000	90.000	179.657	11146.997	99.303	0.000	99.724	-0.000	99.303	0.000	0.000	99.735	48.768	-1.292	MWD+IFR1+MS
23200.000	90.000	179.657	11146.997	100.056	0.000	100.426	-0.000	100.056	0.000	0.000	100.436	48.835	-1.279	MWD+IFR1+MS

23300.000	90.000	179.657	11146.997	100.810	0.000	101.129	-0.000	100.810	0.000	0.000	101.139	48.902	-1.266	MWD+IFR1+MS
23400.000	90.000	179.657	11146.997	101.565	0.000	101.832	-0.000	101.565	0.000	0.000	101.842	48.969	-1.253	MWD+IFR1+MS
23500.000	90.000	179.657	11146.997	102.320	0.000	102.537	-0.000	102.320	0.000	0.000	102.546	49.037	-1.241	MWD+IFR1+MS
23600.000	90.000	179.657	11146.997	103.075	0.000	103.242	-0.000	103.075	0.000	0.000	103.251	49.106	-1.229	MWD+IFR1+MS
23700.000	90.000	179.657	11146.997	103.831	0.000	103.948	-0.000	103.831	0.000	0.000	103.957	49.175	-1.217	MWD+IFR1+MS
23800.000	90.000	179.657	11146.997	104.587	0.000	104.655	-0.000	104.587	0.000	0.000	104.664	49.244	-1.206	MWD+IFR1+MS
23827.536	90.000	179.657	11146.997	104.795	0.000	104.849	-0.000	104.795	0.000	0.000	104.858	49.263	-1.203	MWD+IFR1+MS
23900.000	90.000	179.657	11146.997	105.069	0.000	105.168	-0.000	105.069	0.000	0.000	105.178	55.687	-1.287	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_22
23917.561	90.000	179.657	11146.997	105.069	0.000	105.198	-0.000	105.069	0.000	0.000	105.209	55.702	-1.287	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_22

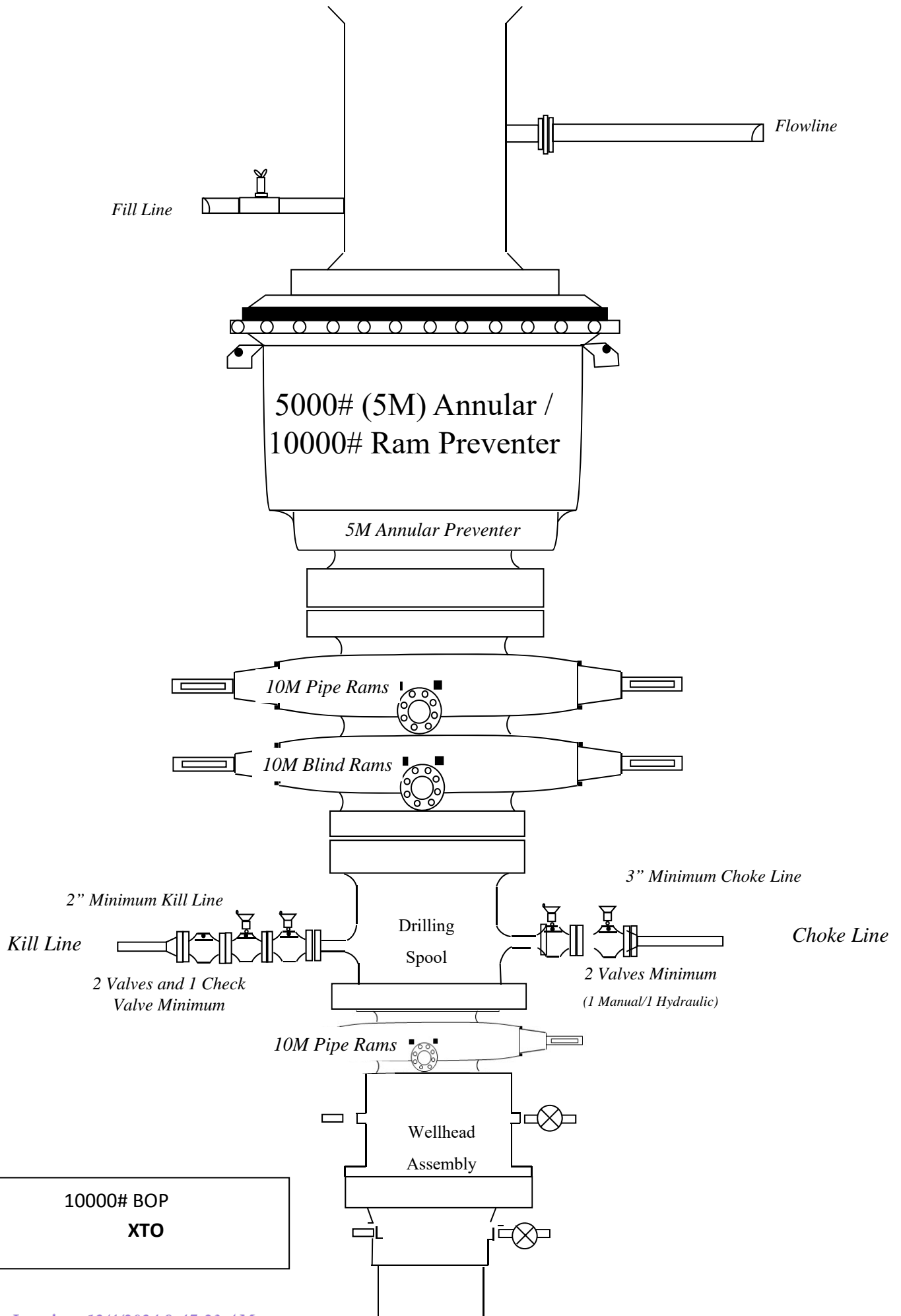
Plan Targets

Poker Lake Unit 22 DTD South 154H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 7	11296.68	440494.40	644626.10	7701.00	RECTANGLE
SHL 7	11305.22	440181.12	644561.27	7671.06	RECTANGLE
LTP 7	23827.63	427516.30	644703.70	7701.00	RECTANGLE
BHL 7	23917.83	427426.30	644704.60	7701.00	RECTANGLE



ALL DIMENSIONS APPROXIMATE			
CACTUS WELLHEAD LLC		XTO ENERGY INC DELAWARE BASIN	
20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-CFL-R-DBLO Wellhead With 11" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 9-5/8", 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers		DRAWN	VJK
		APPRV	31MAR22
		DRAWING NO.	HBE0000479



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

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

Background

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

Supporting Documentation

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



Figure 1: Winch System attached to BOP Stack

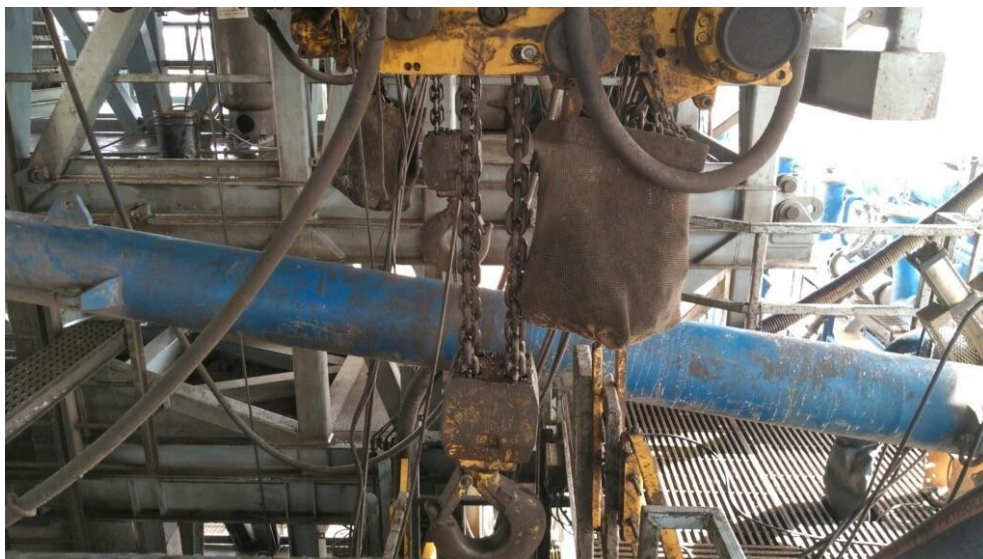


Figure 2: BOP Winch System

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

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API STANDARD 53

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

Component to be Pressure Tested	Pressure Test—Low Pressure ^{ac} psig (MPa)	Pressure Test—High Pressure ^{ac}	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer ^b	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 ^{bd}	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes ^e	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes ^e	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	

^a Pressure test evaluation periods shall be a minimum of five minutes.

No visible leaks.

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

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

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

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

^e Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.

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

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

XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

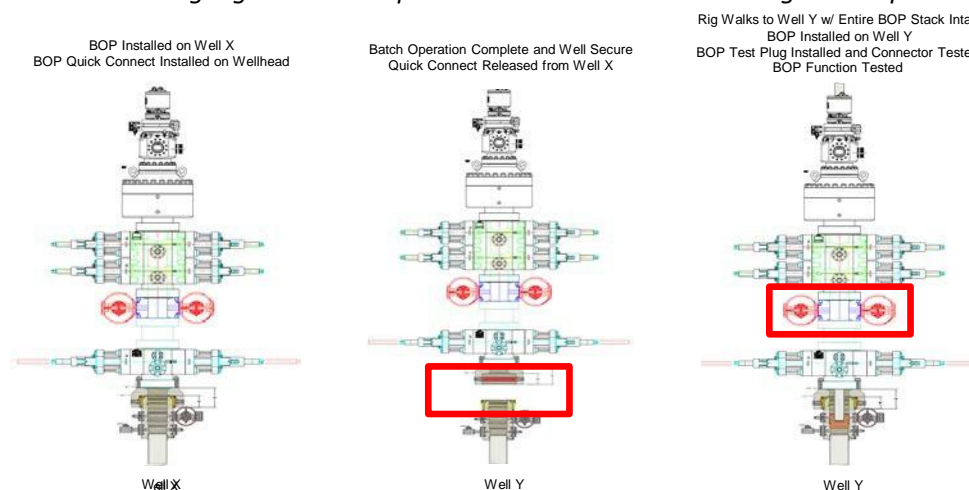
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

Procedures

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

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

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



Summary

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

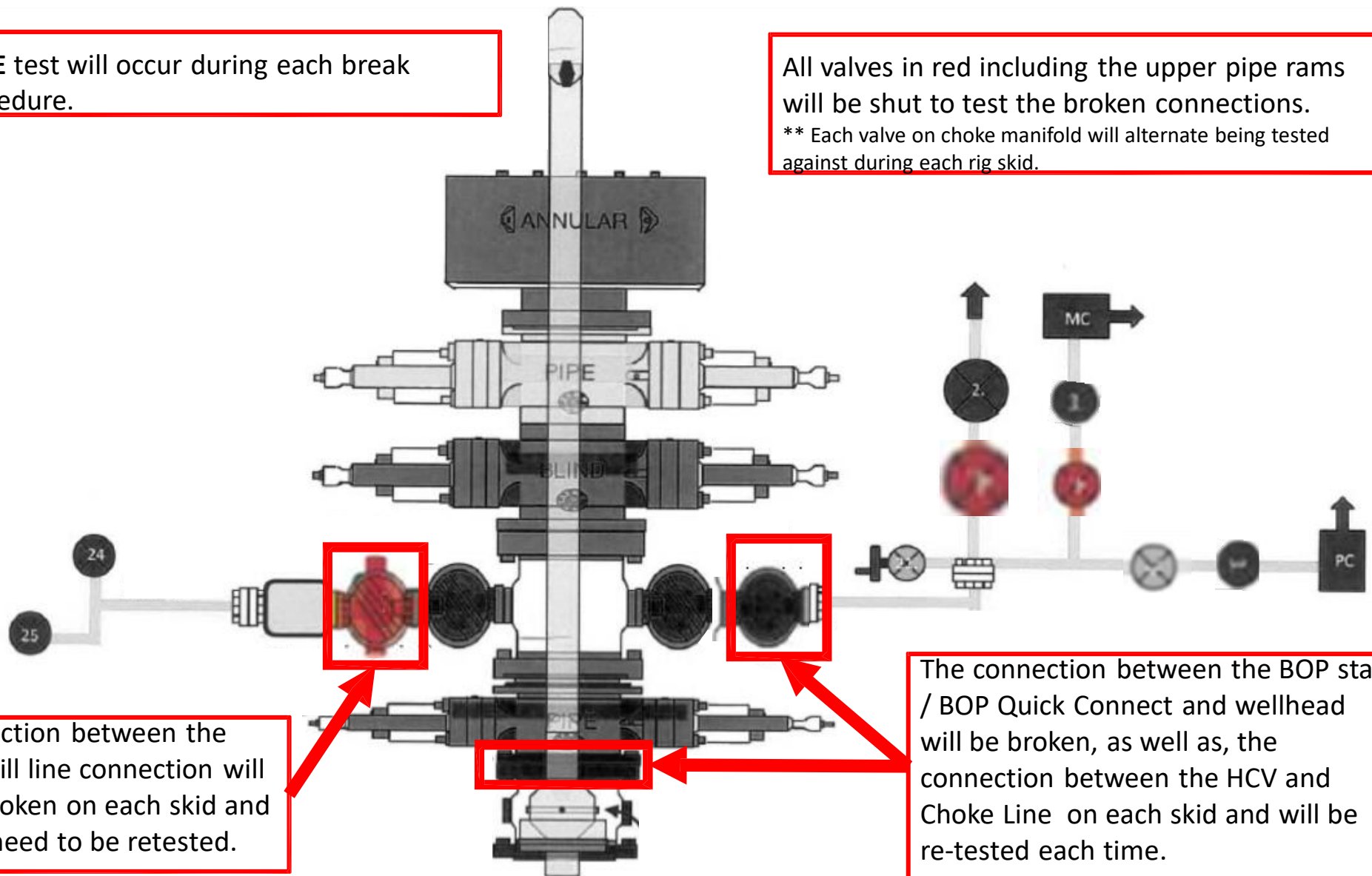
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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

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

Only **ONE** test will occur during each break test procedure.

All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.



The connection between the HCV and kill line connection will **NOT** be broken on each skid and does not need to be retested.

The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.

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

Description of Operations:

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

10,000 PSI Annular BOP Variance Request

XTO Energy/XTO Permian Op. request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables 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 BOPL).

1. Component and Preventer Compatibility Tables

The tables below outline the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

8-1/2" Production Hole Section 10M psi Requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	-	-
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-
Mud Motor	6.750"-8.000"	Annular	5M	-	-
Production Casing	5-1/2"	Annular	5M	-	-
Open-Hole	-	Blind Rams	10M	-	-

2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the XTO Energy/Permian Operating drilling supervisor's office on location and on the rig floor. All BOP equipment will be tested as per 43.CFR.3172 with the exception of the 5000 psi annular which will be tested to 70% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan

9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full-opening safety valve & close
3. Space out drill string
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

- a. Sound alarm (alert crew)
- b. Stab crossover and full-opening safety valve and close
- c. Space out string
- d. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- e. Confirm shut-in
- f. Notify toolpusher/company representative
- g. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
- h. Regroup and identify forward plan
- i. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams (HCR & choke will already be in the closed position)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA Through Stack

1. PRIOR to pulling last joint of drillpipe through stack:
 - a. Perform flow check. If flowing, continue to (b).
 - b. Sound alarm (alert crew)
 - c. Stab full-opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams
 - e. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combination immediately available:
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full-opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams
 - d. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time

- h. Regroup and identify forward plan
 - 3. With BHA in the stack and NO compatible ram preventer and pipe combination immediately available:
 - a. Sound alarm (alert crew)
 - b. If possible, pull string clear of the stack and follow "Open Hole" procedure.
 - c. If impossible to pull string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe and full-opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram
 - f. Shut-in using upper variable bore ram (HCR & choke will already be in the closed position)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan

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Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/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 406951

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 406951
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.	12/4/2024
ward.rikala	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	12/4/2024
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	12/4/2024