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

Sundry Print Report

02/28/2025

Well Name: BIG EDDY UNIT DI 5 WEST 27-29

Well Location: T20S / R31E / SEC 27 / SWNE / 32.546191 / -103.855778

County or Parish/State: EDDY / NM

Well Number: 8H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMLC065431

Unit or CA Name: BIG EDDY

Unit or CA Number: NMNM68294X

US Well Number:

Operator: XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2832710

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/20/2025

Time Sundry Submitted: 06:16

Date proposed operation will begin: 01/24/2025

Procedure Description: Big Eddy Unit DI 5 West 27-29 8H APD ID# 10400093652 SUNDRY LANGUAGE XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, KOP, FTP, LTP, BHL, casing design, cement program, mud circulation system, proposed total depth and pool. FROM: TO: SHL: 1945' FNL & 2260' FEL OF SECTION 27-T20S-R31E 2145' FNL & 2260' FEL OF SECTION 27-T20S-R31E KOP: 1945' FNL & 2260' FEL OF SECTION 27-T20S-R31E 1313' FSL & 1972' FEL OF SECTION 27-T20S-R31E FTP: 2310' FNL & 2310' FWL OF SECTION 27-T20S-R31E 1310' FSL & 2586' FWL OF SECTION 27-T20S-R31E LTP: 2310' FNL & 100' FWL OF SECTION 29-T20S-R31E 1310' FSL & 100' FWL OF SECTION 29-T20S-R31E BHL: 2310' FNL & 50' FWL OF SECTION 29-T20S-R31E 1310' FSL & 50' FWL OF SECTION 29-T20S-R31E The proposed total depth is changing from 22723' MD/9518' TVD to 23558.56' MD/9577' TVD. The pool name is changing from WC-015 G-06 S203127G; Bone Spring to WC Williams Sink; Bone Spring. There are no changes requested to the facilities/surface usage that was approved along with the APD. See attached drilling program for the updated casing design, cement program and the mud circulation system.

NOI Attachments

Procedure Description

Sundry_Attachments___Big_Eddy_Unit_DI_5_West_27_29_8H_20250217073408.pdf

Well Name: BIG EDDY UNIT DI 5 WEST 27-29

Well Location: T20S / R31E / SEC 27 / SWNE / 32.546191 / -103.855778

County or Parish/State: EDDY / NM

Well Number: 8H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMLC065431

Unit or CA Name: BIG EDDY

Unit or CA Number: NMNM68294X

US Well Number:

Operator: XTO PERMIAN OPERATING LLC

Conditions of Approval

Additional

BEU_DI_5_West_27_29_8H_COA_20250227144657.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: SRINIVAS LAGHUVARAPU

Signed on: FEB 17, 2025 07:34 AM

Name: XTO PERMIAN OPERATING LLC

Title: REGULATORY ANALYST

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING **State:** TX

Phone: (720) 539-1673

Email address: SRINIVAS.N.LAGHUVARAPU@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: 02/28/2025

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

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ 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			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 OFICE 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 ofthis form to U.S. Department ofthe Interior, Bureau ofLand 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

BHL: 2310' FNL & 50' FWL OF SECTION 29-T20S-R31E 1310' FSL & 50' FWL OF SECTION 29-T20S-R31E

The proposed total depth is changing from 22723 MD/9518 TVD to 23558.56 MD/9577 TVD.

The pool name is changing from WC-015 G-06 S203127G; Bone Spring to WC Williams Sink; Bone Spring.

There are no changes requested to the facilities/surface usage that was approved along with the APD.

See attached drilling program for the updated casing design, cement program and the mud circulation system.

Location of Well

0. SHL: SWNE / 1945 FNL / 2260 FEL / TWSP: 20S / RANGE: 31E / SECTION: 27 / LAT: 32.546191 / LONG: -103.855778 (TVD: 0 feet, MD: 0 feet)
PPP: SENW / 2310 FNL / 2310 FWL / TWSP: 20S / RANGE: 31E / SECTION: 27 / LAT: 32.545196 / LONG: -103.858046 (TVD: 9518 feet, MD: 9900 feet)
PPP: SENE / 2318 FSL / 0 FWL / TWSP: 20S / RANGE: 31E / SECTION: 28 / LAT: 32.545204 / LONG: -103.865542 (TVD: 9518 feet, MD: 12500 feet)
BHL: SWNW / 2310 FNL / 50 FWL / TWSP: 20S / RANGE: 31E / SECTION: 29 / LAT: 32.545235 / LONG: -103.899804 (TVD: 9518 feet, MD: 22723 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	**NMLC070220**
LOCATION:	Sec. 27, T. 20 S, R 31 E
COUNTY:	Eddy County, New Mexico
WELL NAME & NO.:	Big Eddy Unit DI 5 West 27-29 8H
SURFACE HOLE FOOTAGE:	2145'/N & 2260'/E
BOTTOM HOLE FOOTAGE:	1310'/S & 50'/W

*Changes approved through engineering via **Sundry 2832710_** on 2-27-2025_. Any previous COAs not addressed within the updated COAs still apply.*

COA

H_2S	○ No		○ Yes	
Potash / WIPP	○ None	○ Secretary	◉ R-111-Q	☑ Open Annulus
	4-String Design: Open 1st Int x Production Casing (ICP 2 above Relief Zone)			☐ WIPP
Cave / Karst	◉ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Capitan Reef	☐ Water Disposal	☐ COM	☑ Unit
Waste Prev.	○ Self-Certification	○ Waste Min. Plan	◉ APD Submitted prior to 06/10/2024	
Additional Language	☑ Flex Hose	☑ Casing Clearance	☐ Pilot Hole	☑ Break Testing
	☑ Four-String	☑ Offline Cementing	☐ Fluid-Filled	

A. HYDROGEN SULFIDE

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

APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **851** 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 **9-5/8** inch 1st Intermediate casing is:
    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

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

3. The minimum required fill of cement behind the **7-5/8** 2nd Inch intermediate casing is:
    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Special Capitan Reef requirements. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following: **(Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the Capitan interval)** Switch to freshwater mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

❖ **A monitored open annulus will be incorporated during completion by leaving the Intermediate Casing x Production Casing annulus un-cemented and monitored inside the Intermediate String.** Operator must follow monitoring requirements listed within R-111-Q. Tieback requirements shall be met within **180 days.**

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
   - Cement should tie-back **500 feet** into the previous casing but not higher than USGS Marker Bed No. 126. **Operator must verify top of cement per R-111-Q requirements.** Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. 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).

    1. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

        a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
        b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
        c. Manufacturer representative shall install the test plug for the initial BOP test.
        d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
        e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Unit Wells

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

Commercial Well Determination

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

BOPE Break Testing Variance

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

Offline Cementing

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

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

Casing Clearance

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

GENERAL REQUIREMENTS

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

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

Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM_NM_CFO_DrillingNotifications@BLM.GOV**; (575) 361-2822

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
    a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    b. When the operator proposes to set surface casing with Spudder Rig
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. Notify the BLM when moving in the 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 2/27/2025
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: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015-	97650	WC WILLIAMS SINK; BONE SPRING

Property Code	Property Name	Well Number
	BIG EDDY UNIT DI 5 WEST 27-29	8H

OGRID No.	Operator Name	Ground Level Elevation
373075	XTO PERMIAN OPERATING, LLC.	3,525'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal | Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
G	27	20S	31E		2,145 FNL	2,260 FEL	32.545641	-103.855778	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	29	20S	31E		1,310 FSL	50 FWL	32.540626	-103.899801	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
800.00	DEFINING		N	U

Order Numbers. | Well Setbacks are under Common Ownership: ☒ Yes ☐ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	27	20S	31E		1,313 FSL	1,972 FEL	32.540607	-103.854845	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	27	20S	31E		1,310 FSL	2,586 FWL	32.540609	-103.857169	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	29	20S	31E		1,310 FSL	100 FWL	32.540625	-103.899639	EDDY

Unitized Area or Area of Interest	Spacing Unit Type : ☒ Horizontal ☐ Vertical	Ground Elevation
NMNM105467880		3,525'

OPERATOR CERTIFICATIONS

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.

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.

Srinivas Naveen 1/6/25

Signature Date

Srinivas Naveen Laghuvarapu

Printed Name

srinivas.n.laghuvarapu@exxonmobil.com

Email Address

SURVEYOR CERTIFICATIONS

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

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

MARK DILLON HARP 23786 — Certificate Number

1/3/2025 — Date of Survey

YH 618.013004.04-08

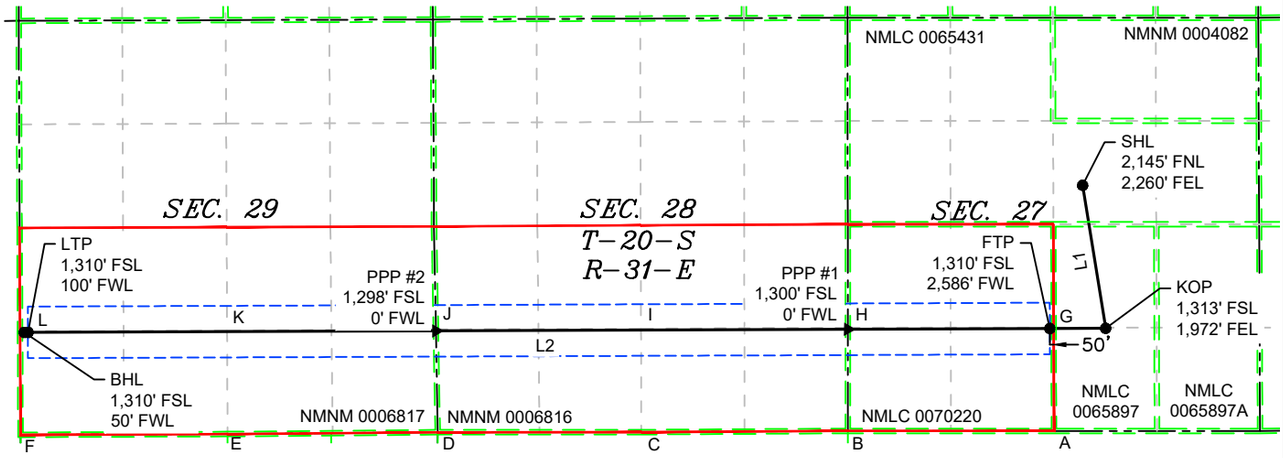
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

P:\618.013 XTO Energy - NM\004 Big Eddy Unit - Eddy Lea\10 - BEU DI 30 - EDDY\Wells\-08 WEST 15-17 5H\DWG\5H C-102.dwg

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.



LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	170°49'28"	1,853.69'
L2	269°46'55"	13,853.75'

LEGEND

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

COORDINATE TABLE

SHL (NAD 83 NME)			KOP (NAD 83 NME)			FTP (NAD 83 NME)			PPP #1 (NAD 83 NME)			PPP #2 (NAD 83 NME)		
Y =	562,564.8	N	Y =	560,734.8	N	Y =	560,732.1	N	Y =	560,722.3	N	Y =	560,702.2	N
X =	688,491.4	E	X =	688,787.0	E	X =	688,070.8	E	X =	685,484.6	E	X =	680,209.1	E
LAT. =	32.545641	°N	LAT. =	32.540607	°N	LAT. =	32.540609	°N	LAT. =	32.540613	°N	LAT. =	32.540620	°N
LONG. =	103.855778	°W	LONG. =	103.854845	°W	LONG. =	103.857169	°W	LONG. =	103.865562	°W	LONG. =	103.882681	°W
			LTP (NAD 83 NME)						BHL (NAD 83 NME)					
			Y =	560,682.3	N				Y =	560,682.1	N			
			X =	674,983.3	E				X =	674,933.3	E			
			LAT. =	32.540625	°N				LAT. =	32.540626	°N			
			LONG. =	103.899639	°W				LONG. =	103.899801	°W			
SHL (NAD 27 NME)			**KOP (NAD 27 NME)**			**FTP (NAD 27 NME)**			**PPP #1 (NAD 27 NME)**			**PPP #2 (NAD 27 NME)**		
Y =	562,503.1	N	Y =	560,673.1	N	Y =	560,670.4	N	Y =	560,660.6	N	Y =	560,640.4	N
X =	647,311.8	E	X =	647,607.3	E	X =	646,891.2	E	X =	644,304.9	E	X =	639,029.4	E
LAT. =	32.545520	°N	LAT. =	32.540487	°N	LAT. =	32.540488	°N	LAT. =	32.540492	°N	LAT. =	32.540500	°N
LONG. =	103.855276	°W	LONG. =	103.854344	°W	LONG. =	103.856668	°W	LONG. =	103.865060	°W	LONG. =	103.882179	°W
			LTP (NAD 27 NME)						BHL (NAD 27 NME)					
			Y =	560,620.6	N				Y =	560,620.4	N			
			X =	633,803.6	E				X =	633,753.6	E			
			LAT. =	32.540505	°N				LAT. =	32.540505	°N			
			LONG. =	103.899137	°W				LONG. =	103.899299	°W			

CORNER COORDINATES (NAD 83 NME)						CORNER COORDINATES (NAD 27 NME)					
A - Y =	559,422.1	N	A - X =	688,124.2	E	A - Y =	559,360.4	N	A - X =	646,944.5	E
B - Y =	559,421.8	N	B - X =	685,485.7	E	B - Y =	559,360.1	N	B - X =	644,306.0	E
C - Y =	559,405.9	N	C - X =	682,840.1	E	C - Y =	559,344.2	N	C - X =	641,660.5	E
D - Y =	559,404.2	N	D - X =	680,232.0	E	D - Y =	559,342.5	N	D - X =	639,052.2	E
E - Y =	559,381.4	N	E - X =	677,541.0	E	E - Y =	559,319.7	N	E - X =	636,361.3	E
F - Y =	559,371.9	N	F - X =	674,889.4	E	F - Y =	559,310.2	N	F - X =	633,709.6	E
G - Y =	560,743.9	N	G - X =	688,120.8	E	G - Y =	560,682.3	N	G - X =	646,941.1	E
H - Y =	560,743.8	N	H - X =	685,484.5	E	H - Y =	560,682.1	N	H - X =	644,304.9	E
I - Y =	560,729.1	N	I - X =	682,836.3	E	I - Y =	560,667.4	N	I - X =	641,656.7	E
J - Y =	560,721.4	N	J - X =	680,208.8	E	J - Y =	560,659.7	N	J - X =	639,029.1	E
K - Y =	560,705.3	N	K - X =	677,534.9	E	K - Y =	560,643.5	N	K - X =	636,355.2	E
L - Y =	560,695.7	N	L - X =	674,883.3	E	L - Y =	560,634.0	N	L - X =	633,703.6	E

YH 618.013004.04-08

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

XTO Energy Inc.
BIG EDDY UNIT DI 5 WEST 27-29 8H
Projected TD: 23558.56' MD / 9577' TVD
SHL: 2145' FNL & 2260' FEL , Section 27, T20S, R31E
BHL: 1310' FSL & 50' FWL , Section 29, T20S, R31E
EDDY County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	675'	Water
Top of Salt	951'	Water
Base of Salt	2203'	Water
Capitan	2863'	Water
Delaware	3938'	Water
Brushy Canyon	5895'	Water/Oil/Gas
Bone Spring	7471'	Water
Avalon	7666'	Water/Oil/Gas
1st Bone Spring	8404'	Water/Oil/Gas
2nd Bone Spring	9106'	Water/Oil/Gas
Target/Land Curve	9577'	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 surface casing @ 851' (100' above the salt) and circulating cement back to surface. The salt will be isolated by setting first intermediate casing at 2303' and circulating cement to surface. The second intermediate will isolate Capitan Reef to ~50' inside Delaware formation and cemented to surface a. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 23558.56 MD/TD and 5.5 inch production casing will be set at TD and cemented to a estimated TOC 7471 feet

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 851'	13.375	54.5	J-55	BTC	New	3.97	3.04	19.60
12.25	0' – 2303'	9.625	40	J-55	BTC	New	4.17	3.93	6.84
8.75	0' – 2403'	7.625	29.7	HC L-80	Flush Joint	New	2.20	5.05	3.43
8.75	2403' – 3988'	7.625	29.7	HC L-80	Flush Joint	New	2.20	8.53	9.21
6.75	0' – 3888'	5.5	20	RY P-110	Semi-Premium / Freedom	New	1.05	5.23	2.13
6.75	3888' - 23558.56'	5.5	20	RY P-110	Semi-Flush / Talon	New	1.05	2.12	2.88

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

Wellhead:

Permanent Wellhead

Multibowl System for 4 String desing as per attachement.

4. Cement Program

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.

Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 851'

Optional Lead: 570 sxs EconoCem-HLTRRC (mixed at 12.8 ppg, 1.33 ft3/sx, 10.13 gal/sx water)
Tail: 310 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 250 psi 24 hr = 500 psi

1st Intermediate Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 2303'

Lead: 450 sxs Class C (mixed at 14.8 ppg, 2.06 ft3/sx, 10.13 gal/sx water)
Tail: 60 sxs Class C + 2% CaCl (mixed at 15.6 ppg, 2.06 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 +/- 3988'
Lead: 90 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: 0
Tail: 210 sxs Class C (mixed at 14.8 ppg, 1.27 ft3/sx, 6.39 gal/sx water)
TOC: @ 2863
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a single stage cement job on the second intermediate casing string, with slurries pumped conventionally with the first slurry top of cement at Capitan Reef (2863') and the second slurry performed with planned cement from the Capitan Reef to surface.

Production Casing: 5.5, 20 New Semi-Flush / Talon, RY P-110 casing to be set at +/- 23558.56'

Lead: 60 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 7471 feet
Tail: 900 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 9293.31 feet
Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

XTO requests to pump a single stage cement job on the 5.5" Production casing string with two slurries pumped conventionally, the first slurry with calculated top of cement at KOP @ 9293' MD, and the second slurry with planned cement from KOP base of brushy Canyon.

A post completion bradenhead squeeze will be performed to tied back the 2nd intermediate x production casing annulus TOC into the 2nd intermediate shoe but below of potash interval

5. Pressure Control Equipment

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

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

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold.

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

A break testing variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)	***Additional Comments.***
0' - 851'	17.5	FW/Native	8.4-8.9	35-40	NC	Fresh water or native water
851' - 2303'	12.25	Sat Brine	10-10.5	30-32	NC	Fully saturated brine across salado / salt
2303' to 3988'	8.75	FW	8.8-9.3	30-32	NC	FW across Cap Reef
3988' to 23558.56'	6.75	OBM	10.5-11	50-60	NC - 20	OBM or Brine depending well conditions.

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

Spud with fresh water/native mud. Drill out from under surface casing a fully saturated brine 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 EDR system 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 13.375 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 160 to 180 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 5229 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.

Measured Depth:	23558.56 ft
TVD RKB:	9577.00 ft
Location	
Cartographic Reference System:	New Mexico East - NAD 27
Northing:	562503.10 ft
Easting:	647311.80 ft
RKB:	3557.00 ft
Ground Level:	3525.00 ft
North Reference:	Grid
Convergence Angle:	0.26 Deg

Plan Sections BEU DI 5 27-29 8H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	
3831.31	30.63	170.82	3759.42	-394.50	63.72	2.00	0.00	2.00	
5901.19	30.63	170.82	5540.58	-1435.48	231.87	0.00	0.00	0.00	
7432.50	0.00	0.00	7000.00	-1829.97	295.59	-2.00	0.00	2.00	
9293.31	0.00	0.00	8860.80	-1829.97	295.59	0.00	0.00	0.00	
10418.31	90.00	269.78	9577.00	-1832.70	-420.60	8.00	0.00	8.00	FTP 9
23506.00	90.00	269.78	9577.00	-1882.50	-13508.20	0.00	0.00	0.00	LTP 9
23558.56	90.00	269.78	9577.00	-1882.70	-13560.76	0.00	0.00	0.00	BHL 9

Position Uncertainty BEU DI 5 27-29 8H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool

Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	of Bias (ft)	Error (ft)	Error (ft)	Azimuth (°)	Used
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	XOMR2_OWSG MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.358	0.000	0.179	0.000	2.300	0.000	0.000	0.358	0.179	90.000	XOMR2_OWSG MWD+IFR1+MS
200.000	0.000	0.000	200.000	0.717	0.000	0.538	0.000	2.310	0.000	0.000	0.717	0.538	90.000	XOMR2_OWSG MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.075	0.000	0.896	0.000	2.326	0.000	0.000	1.075	0.896	90.000	XOMR2_OWSG MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.434	0.000	1.255	0.000	2.348	0.000	0.000	1.434	1.255	90.000	XOMR2_OWSG MWD+IFR1+MS
500.000	0.000	0.000	500.000	1.792	0.000	1.613	0.000	2.375	0.000	0.000	1.792	1.613	90.000	XOMR2_OWSG MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.151	0.000	1.972	0.000	2.408	0.000	0.000	2.151	1.972	90.000	XOMR2_OWSG MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.509	0.000	2.330	0.000	2.446	0.000	0.000	2.509	2.330	90.000	XOMR2_OWSG MWD+IFR1+MS
800.000	0.000	0.000	800.000	2.868	0.000	2.689	0.000	2.488	0.000	0.000	2.868	2.689	90.000	XOMR2_OWSG MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.226	0.000	3.047	0.000	2.534	0.000	0.000	3.226	3.047	90.000	XOMR2_OWSG MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	3.585	0.000	3.405	0.000	2.585	0.000	0.000	3.585	3.405	90.000	XOMR2_OWSG MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	3.943	0.000	3.764	0.000	2.639	0.000	0.000	3.943	3.764	90.000	XOMR2_OWSG MWD+IFR1+MS
1200.000	0.000	0.000	1200.000	4.302	0.000	4.122	0.000	2.696	0.000	0.000	4.302	4.122	90.000	XOMR2_OWSG MWD+IFR1+MS
1300.000	0.000	0.000	1300.000	4.660	0.000	4.481	0.000	2.756	0.000	0.000	4.660	4.481	90.000	XOMR2_OWSG MWD+IFR1+MS
1400.000	0.000	0.000	1400.000	5.019	0.000	4.839	0.000	2.819	0.000	0.000	5.019	4.839	90.000	XOMR2_OWSG MWD+IFR1+MS
1500.000	0.000	0.000	1500.000	5.377	0.000	5.198	0.000	2.884	0.000	0.000	5.377	5.198	90.000	XOMR2_OWSG MWD+IFR1+MS
1600.000	0.000	0.000	1600.000	5.736	0.000	5.556	0.000	2.952	0.000	0.000	5.736	5.556	90.000	XOMR2_OWSG MWD+IFR1+MS
1700.000	0.000	0.000	1700.000	6.094	0.000	5.915	0.000	3.022	0.000	0.000	6.094	5.915	90.000	XOMR2_OWSG MWD+IFR1+MS
1800.000	0.000	0.000	1800.000	6.452	0.000	6.273	0.000	3.094	0.000	0.000	6.452	6.273	90.000	XOMR2_OWSG MWD+IFR1+MS

1900.000	0.000	0.000	1900.000	6.811	0.000	6.632	0.000	3.167	0.000	0.000	6.811	6.632	90.000	XOMR2_OWSG MWD+IFR1+MS
2000.000	0.000	0.000	2000.000	7.169	0.000	6.990	0.000	3.243	0.000	0.000	7.169	6.990	90.000	XOMR2_OWSG MWD+IFR1+MS
2100.000	0.000	0.000	2100.000	7.528	0.000	7.349	0.000	3.320	0.000	0.000	7.528	7.349	90.000	XOMR2_OWSG MWD+IFR1+MS
2200.000	0.000	0.000	2200.000	7.886	0.000	7.707	0.000	3.399	0.000	0.000	7.886	7.707	90.000	XOMR2_OWSG MWD+IFR1+MS
2300.000	0.000	0.000	2300.000	8.245	0.000	8.066	0.000	3.479	0.000	0.000	8.245	8.066	90.000	XOMR2_OWSG MWD+IFR1+MS
2400.000	2.000	170.824	2399.980	8.576	0.000	8.410	-0.000	3.560	0.000	0.000	8.585	8.405	90.011	XOMR2_OWSG MWD+IFR1+MS
2500.000	4.000	170.824	2499.838	8.887	0.000	8.733	-0.000	3.641	0.000	0.000	8.910	8.728	90.021	XOMR2_OWSG MWD+IFR1+MS
2600.000	6.000	170.824	2599.452	9.189	0.000	9.057	-0.000	3.722	0.000	0.000	9.237	9.053	90.058	XOMR2_OWSG MWD+IFR1+MS
2700.000	8.000	170.824	2698.702	9.484	0.000	9.384	-0.000	3.803	0.000	0.000	9.565	9.379	90.142	XOMR2_OWSG MWD+IFR1+MS
2800.000	10.000	170.824	2797.465	9.771	0.000	9.712	-0.000	3.885	0.000	0.000	9.894	9.707	90.292	XOMR2_OWSG MWD+IFR1+MS
2900.000	12.000	170.824	2895.623	10.049	0.000	10.042	-0.000	3.967	0.000	0.000	10.224	10.037	90.530	XOMR2_OWSG MWD+IFR1+MS
3000.000	14.000	170.824	2993.055	10.319	0.000	10.375	-0.000	4.051	0.000	0.000	10.555	10.370	90.882	XOMR2_OWSG MWD+IFR1+MS
3100.000	16.000	170.824	3089.643	10.581	0.000	10.711	-0.000	4.138	0.000	0.000	10.887	10.705	91.389	XOMR2_OWSG MWD+IFR1+MS
3200.000	18.000	170.824	3185.268	10.835	0.000	11.051	-0.000	4.228	0.000	0.000	11.218	11.044	92.112	XOMR2_OWSG MWD+IFR1+MS
3300.000	20.000	170.824	3279.816	11.082	0.000	11.395	-0.000	4.323	0.000	0.000	11.551	11.387	93.155	XOMR2_OWSG MWD+IFR1+MS
3400.000	22.000	170.824	3373.169	11.322	0.000	11.744	-0.000	4.424	0.000	0.000	11.884	11.735	94.706	XOMR2_OWSG MWD+IFR1+MS
3500.000	24.000	170.824	3465.215	11.556	0.000	12.098	-0.000	4.533	0.000	0.000	12.218	12.087	97.135	XOMR2_OWSG MWD+IFR1+MS
3600.000	26.000	170.824	3555.841	11.785	0.000	12.458	-0.000	4.651	0.000	0.000	12.553	12.444	101.243	XOMR2_OWSG MWD+IFR1+MS
3700.000	28.000	170.824	3644.937	12.009	0.000	12.824	-0.000	4.780	0.000	0.000	12.892	12.805	108.869	XOMR2_OWSG MWD+IFR1+MS
3800.000	30.000	170.824	3732.394	12.229	0.000	13.198	-0.000	4.923	0.000	0.000	13.238	13.165	123.126	XOMR2_OWSG MWD+IFR1+MS

3831.310	30.626	170.824	3759.424	12.297	0.000	13.316	-0.000	4.965	0.000	0.000	13.350	13.277	127.830	XOMR2_OWSG MWD+IFR1+MS
3900.000	30.626	170.824	3818.532	12.564	0.000	13.579	-0.000	5.081	0.000	0.000	13.600	13.517	-39.367	XOMR2_OWSG MWD+IFR1+MS
4000.000	30.626	170.824	3904.583	12.960	0.000	13.969	-0.000	5.263	0.000	0.000	13.981	13.859	-27.452	XOMR2_OWSG MWD+IFR1+MS
4100.000	30.626	170.824	3990.634	13.363	0.000	14.366	-0.000	5.453	0.000	0.000	14.374	14.203	-21.585	XOMR2_OWSG MWD+IFR1+MS
4200.000	30.626	170.824	4076.685	13.774	0.000	14.771	-0.000	5.650	0.000	0.000	14.776	14.550	-18.347	XOMR2_OWSG MWD+IFR1+MS
4300.000	30.626	170.824	4162.736	14.190	0.000	15.181	-0.000	5.855	0.000	0.000	15.186	14.902	-16.335	XOMR2_OWSG MWD+IFR1+MS
4400.000	30.626	170.824	4248.787	14.613	0.000	15.597	-0.000	6.066	0.000	0.000	15.601	15.258	-14.970	XOMR2_OWSG MWD+IFR1+MS
4500.000	30.626	170.824	4334.837	15.041	0.000	16.019	-0.000	6.282	0.000	0.000	16.022	15.618	-13.984	XOMR2_OWSG MWD+IFR1+MS
4600.000	30.626	170.824	4420.888	15.473	0.000	16.445	-0.000	6.504	0.000	0.000	16.448	15.982	-13.239	XOMR2_OWSG MWD+IFR1+MS
4700.000	30.626	170.824	4506.939	15.910	0.000	16.876	-0.000	6.731	0.000	0.000	16.878	16.350	-12.655	XOMR2_OWSG MWD+IFR1+MS
4800.000	30.626	170.824	4592.990	16.352	0.000	17.312	-0.000	6.962	0.000	0.000	17.313	16.722	-12.184	XOMR2_OWSG MWD+IFR1+MS
4900.000	30.626	170.824	4679.041	16.797	0.000	17.751	-0.000	7.197	0.000	0.000	17.752	17.097	-11.796	XOMR2_OWSG MWD+IFR1+MS
5000.000	30.626	170.824	4765.092	17.245	0.000	18.193	-0.000	7.436	0.000	0.000	18.194	17.475	-11.470	XOMR2_OWSG MWD+IFR1+MS
5100.000	30.626	170.824	4851.143	17.697	0.000	18.639	-0.000	7.678	0.000	0.000	18.640	17.856	-11.192	XOMR2_OWSG MWD+IFR1+MS
5200.000	30.626	170.824	4937.194	18.152	0.000	19.088	-0.000	7.924	0.000	0.000	19.089	18.240	-10.952	XOMR2_OWSG MWD+IFR1+MS
5300.000	30.626	170.824	5023.245	18.609	0.000	19.541	-0.000	8.172	0.000	0.000	19.541	18.627	-10.743	XOMR2_OWSG MWD+IFR1+MS
5400.000	30.626	170.824	5109.296	19.069	0.000	19.995	-0.000	8.423	0.000	0.000	19.996	19.016	-10.558	XOMR2_OWSG MWD+IFR1+MS
5500.000	30.626	170.824	5195.347	19.532	0.000	20.453	-0.000	8.677	0.000	0.000	20.453	19.408	-10.393	XOMR2_OWSG MWD+IFR1+MS
5600.000	30.626	170.824	5281.398	19.996	0.000	20.912	-0.000	8.933	0.000	0.000	20.913	19.802	-10.246	XOMR2_OWSG MWD+IFR1+MS
5700.000	30.626	170.824	5367.448	20.463	0.000	21.374	-0.000	9.191	0.000	0.000	21.374	20.198	-10.114	XOMR2_OWSG MWD+IFR1+MS

5800.000	30.626	170.824	5453.499	20.932	0.000	21.838	-0.000	9.452	0.000	0.000	21.838	20.596	-9.993	XOMR2_OWSG MWD+IFR1+MS
5901.192	30.626	170.824	5540.576	21.408	0.000	22.309	-0.000	9.717	0.000	0.000	22.309	21.000	-9.882	XOMR2_OWSG MWD+IFR1+MS
6000.000	28.650	170.824	5626.452	22.009	0.000	22.768	-0.000	9.976	0.000	0.000	22.768	21.397	-9.785	XOMR2_OWSG MWD+IFR1+MS
6100.000	26.650	170.824	5715.028	22.586	0.000	23.226	-0.000	10.228	0.000	0.000	23.226	21.799	-9.699	XOMR2_OWSG MWD+IFR1+MS
6200.000	24.650	170.824	5805.168	23.130	0.000	23.677	-0.000	10.466	0.000	0.000	23.677	22.202	-9.624	XOMR2_OWSG MWD+IFR1+MS
6300.000	22.650	170.824	5896.765	23.639	0.000	24.120	-0.000	10.691	0.000	0.000	24.120	22.605	-9.557	XOMR2_OWSG MWD+IFR1+MS
6400.000	20.650	170.824	5989.706	24.112	0.000	24.554	-0.000	10.903	0.000	0.000	24.554	23.006	-9.497	XOMR2_OWSG MWD+IFR1+MS
6500.000	18.650	170.824	6083.877	24.549	0.000	24.978	-0.000	11.103	0.000	0.000	24.978	23.404	-9.443	XOMR2_OWSG MWD+IFR1+MS
6600.000	16.650	170.824	6179.165	24.948	0.000	25.392	-0.000	11.290	0.000	0.000	25.392	23.797	-9.394	XOMR2_OWSG MWD+IFR1+MS
6700.000	14.650	170.824	6275.453	25.309	0.000	25.796	-0.000	11.465	0.000	0.000	25.796	24.183	-9.349	XOMR2_OWSG MWD+IFR1+MS
6800.000	12.650	170.824	6372.624	25.630	0.000	26.189	-0.000	11.631	0.000	0.000	26.189	24.563	-9.309	XOMR2_OWSG MWD+IFR1+MS
6900.000	10.650	170.824	6470.559	25.911	0.000	26.570	-0.000	11.786	0.000	0.000	26.570	24.934	-9.272	XOMR2_OWSG MWD+IFR1+MS
7000.000	8.650	170.824	6569.139	26.153	0.000	26.939	-0.000	11.932	0.000	0.000	26.939	25.296	-9.239	XOMR2_OWSG MWD+IFR1+MS
7100.000	6.650	170.824	6668.244	26.354	0.000	27.296	-0.000	12.071	0.000	0.000	27.296	25.648	-9.208	XOMR2_OWSG MWD+IFR1+MS
7200.000	4.650	170.824	6767.753	26.515	0.000	27.642	-0.000	12.203	0.000	0.000	27.642	25.988	-9.181	XOMR2_OWSG MWD+IFR1+MS
7300.000	2.650	170.824	6867.545	26.636	0.000	27.975	-0.000	12.328	0.000	0.000	27.975	26.317	-9.157	XOMR2_OWSG MWD+IFR1+MS
7400.000	0.650	170.824	6967.498	26.717	0.000	28.296	-0.000	12.449	0.000	0.000	28.296	26.634	-9.136	XOMR2_OWSG MWD+IFR1+MS
7432.502	0.000	0.000	7000.000	26.776	0.000	28.353	0.000	12.488	0.000	0.000	28.394	26.733	-9.144	XOMR2_OWSG MWD+IFR1+MS
7500.000	0.000	0.000	7067.498	26.977	0.000	28.546	0.000	12.568	0.000	0.000	28.587	26.934	-9.189	XOMR2_OWSG MWD+IFR1+MS
7600.000	0.000	0.000	7167.498	27.276	0.000	28.834	0.000	12.689	0.000	0.000	28.875	27.232	-9.255	XOMR2_OWSG MWD+IFR1+MS

7700.000	0.000	0.000	7267.498	27.577	0.000	29.123	0.000	12.813	0.000	0.000	29.165	27.533	-9.321	XOMR2_OWSG MWD+IFR1+MS
7800.000	0.000	0.000	7367.498	27.879	0.000	29.414	0.000	12.940	0.000	0.000	29.456	27.834	-9.386	XOMR2_OWSG MWD+IFR1+MS
7900.000	0.000	0.000	7467.498	28.182	0.000	29.706	0.000	13.070	0.000	0.000	29.749	28.137	-9.451	XOMR2_OWSG MWD+IFR1+MS
8000.000	0.000	0.000	7567.498	28.486	0.000	30.000	0.000	13.203	0.000	0.000	30.043	28.441	-9.515	XOMR2_OWSG MWD+IFR1+MS
8100.000	0.000	0.000	7667.498	28.792	0.000	30.295	0.000	13.339	0.000	0.000	30.338	28.747	-9.578	XOMR2_OWSG MWD+IFR1+MS
8200.000	0.000	0.000	7767.498	29.099	0.000	30.591	0.000	13.479	0.000	0.000	30.635	29.054	-9.642	XOMR2_OWSG MWD+IFR1+MS
8300.000	0.000	0.000	7867.498	29.407	0.000	30.889	0.000	13.622	0.000	0.000	30.933	29.361	-9.704	XOMR2_OWSG MWD+IFR1+MS
8400.000	0.000	0.000	7967.498	29.716	0.000	31.188	0.000	13.768	0.000	0.000	31.232	29.670	-9.767	XOMR2_OWSG MWD+IFR1+MS
8500.000	0.000	0.000	8067.498	30.027	0.000	31.488	0.000	13.917	0.000	0.000	31.533	29.980	-9.828	XOMR2_OWSG MWD+IFR1+MS
8600.000	0.000	0.000	8167.498	30.338	0.000	31.790	0.000	14.069	0.000	0.000	31.834	30.292	-9.890	XOMR2_OWSG MWD+IFR1+MS
8700.000	0.000	0.000	8267.498	30.651	0.000	32.093	0.000	14.225	0.000	0.000	32.137	30.604	-9.951	XOMR2_OWSG MWD+IFR1+MS
8800.000	0.000	0.000	8367.498	30.964	0.000	32.396	0.000	14.385	0.000	0.000	32.441	30.917	-10.011	XOMR2_OWSG MWD+IFR1+MS
8900.000	0.000	0.000	8467.498	31.279	0.000	32.701	0.000	14.547	0.000	0.000	32.747	31.231	-10.071	XOMR2_OWSG MWD+IFR1+MS
9000.000	0.000	0.000	8567.498	31.594	0.000	33.007	0.000	14.713	0.000	0.000	33.053	31.546	-10.130	XOMR2_OWSG MWD+IFR1+MS
9100.000	0.000	0.000	8667.498	31.910	0.000	33.314	0.000	14.882	0.000	0.000	33.360	31.862	-10.189	XOMR2_OWSG MWD+IFR1+MS
9200.000	0.000	0.000	8767.498	32.227	0.000	33.622	0.000	15.055	0.000	0.000	33.668	32.179	-10.248	XOMR2_OWSG MWD+IFR1+MS
9293.305	0.000	0.000	8860.803	32.524	0.000	33.911	0.000	15.219	0.000	0.000	33.957	32.476	-10.302	XOMR2_OWSG MWD+IFR1+MS
9300.000	0.536	269.782	8867.497	33.922	-0.000	32.543	0.000	15.231	0.000	0.000	33.978	32.497	-10.300	XOMR2_OWSG MWD+IFR1+MS
9400.000	8.536	269.782	8967.103	33.781	-0.000	32.854	0.000	15.410	0.000	0.000	34.285	32.808	-10.330	XOMR2_OWSG MWD+IFR1+MS
9500.000	16.536	269.782	9064.640	33.119	-0.000	33.156	0.000	15.595	0.000	0.000	34.581	33.106	-10.631	XOMR2_OWSG MWD+IFR1+MS

9600.000	24.536	269.782	9158.210	31.967	-0.000	33.442	0.000	15.791	0.000	0.000	34.855	33.388	-11.197	XOMR2_OWSG MWD+IFR1+MS
9700.000	32.536	269.782	9245.990	30.379	-0.000	33.712	0.000	16.006	0.000	0.000	35.099	33.651	-11.974	XOMR2_OWSG MWD+IFR1+MS
9800.000	40.536	269.782	9326.274	28.433	-0.000	33.964	0.000	16.247	0.000	0.000	35.310	33.895	-12.887	XOMR2_OWSG MWD+IFR1+MS
9900.000	48.536	269.782	9397.497	26.237	-0.000	34.201	0.000	16.520	0.000	0.000	35.482	34.124	-13.855	XOMR2_OWSG MWD+IFR1+MS
10000.000	56.536	269.782	9458.275	23.941	-0.000	34.425	0.000	16.830	0.000	0.000	35.614	34.343	-14.795	XOMR2_OWSG MWD+IFR1+MS
10100.000	64.536	269.782	9507.423	21.746	-0.000	34.639	0.000	17.178	0.000	0.000	35.704	34.556	-15.619	XOMR2_OWSG MWD+IFR1+MS
10200.000	72.536	269.782	9543.986	19.910	-0.000	34.846	0.000	17.566	0.000	0.000	35.755	34.771	-16.185	XOMR2_OWSG MWD+IFR1+MS
10300.000	80.536	269.782	9567.251	18.729	-0.000	35.048	0.000	17.986	0.000	0.000	35.771	34.988	-16.167	XOMR2_OWSG MWD+IFR1+MS
10400.000	88.536	269.782	9576.766	18.457	-0.000	35.243	0.000	18.432	0.000	0.000	35.759	35.209	-14.561	XOMR2_OWSG MWD+IFR1+MS
10418.305	90.000	269.782	9577.000	18.516	0.000	35.277	0.000	18.516	0.000	0.000	35.755	35.249	-13.851	XOMR2_OWSG MWD+IFR1+MS
10500.000	90.000	269.782	9577.000	18.897	0.000	35.443	0.000	18.897	0.000	0.000	35.737	35.436	-8.552	XOMR2_OWSG MWD+IFR1+MS
10600.000	90.000	269.782	9577.000	19.382	0.000	35.677	0.000	19.382	0.000	0.000	35.760	35.652	28.486	XOMR2_OWSG MWD+IFR1+MS
10700.000	90.000	269.782	9577.000	19.886	0.000	35.945	0.000	19.886	0.000	0.000	36.011	35.674	63.490	XOMR2_OWSG MWD+IFR1+MS
10800.000	90.000	269.782	9577.000	20.408	0.000	36.246	0.000	20.408	0.000	0.000	36.329	35.662	69.033	XOMR2_OWSG MWD+IFR1+MS
10900.000	90.000	269.782	9577.000	20.946	0.000	36.579	0.000	20.946	0.000	0.000	36.679	35.650	71.453	XOMR2_OWSG MWD+IFR1+MS
11000.000	90.000	269.782	9577.000	21.500	0.000	36.943	0.000	21.500	0.000	0.000	37.059	35.639	72.988	XOMR2_OWSG MWD+IFR1+MS
11100.000	90.000	269.782	9577.000	22.067	0.000	37.337	0.000	22.067	0.000	0.000	37.467	35.631	74.132	XOMR2_OWSG MWD+IFR1+MS
11200.000	90.000	269.782	9577.000	22.648	0.000	37.760	0.000	22.648	0.000	0.000	37.903	35.624	75.057	XOMR2_OWSG MWD+IFR1+MS
11300.000	90.000	269.782	9577.000	23.240	0.000	38.212	0.000	23.240	0.000	0.000	38.366	35.619	75.840	XOMR2_OWSG MWD+IFR1+MS
11400.000	90.000	269.782	9577.000	23.844	0.000	38.691	0.000	23.844	0.000	0.000	38.855	35.616	76.522	XOMR2_OWSG MWD+IFR1+MS

11500.000	90.000	269.782	9577.000	24.458	0.000	39.196	0.000	24.458	0.000	0.000	39.368	35.615	77.127	XOMR2_OWSG MWD+IFR1+MS
11600.000	90.000	269.782	9577.000	25.081	0.000	39.727	0.000	25.081	0.000	0.000	39.906	35.615	77.670	XOMR2_OWSG MWD+IFR1+MS
11700.000	90.000	269.782	9577.000	25.714	0.000	40.282	0.000	25.714	0.000	0.000	40.467	35.616	78.164	XOMR2_OWSG MWD+IFR1+MS
11800.000	90.000	269.782	9577.000	26.354	0.000	40.860	0.000	26.354	0.000	0.000	41.051	35.619	78.615	XOMR2_OWSG MWD+IFR1+MS
11900.000	90.000	269.782	9577.000	27.002	0.000	41.461	0.000	27.002	0.000	0.000	41.656	35.622	79.030	XOMR2_OWSG MWD+IFR1+MS
12000.000	90.000	269.782	9577.000	27.657	0.000	42.083	0.000	27.657	0.000	0.000	42.282	35.627	79.414	XOMR2_OWSG MWD+IFR1+MS
12100.000	90.000	269.782	9577.000	28.319	0.000	42.725	0.000	28.319	0.000	0.000	42.928	35.634	79.770	XOMR2_OWSG MWD+IFR1+MS
12200.000	90.000	269.782	9577.000	28.987	0.000	43.387	0.000	28.987	0.000	0.000	43.592	35.641	80.102	XOMR2_OWSG MWD+IFR1+MS
12300.000	90.000	269.782	9577.000	29.661	0.000	44.068	0.000	29.661	0.000	0.000	44.275	35.649	80.412	XOMR2_OWSG MWD+IFR1+MS
12400.000	90.000	269.782	9577.000	30.340	0.000	44.767	0.000	30.340	0.000	0.000	44.975	35.658	80.702	XOMR2_OWSG MWD+IFR1+MS
12500.000	90.000	269.782	9577.000	31.024	0.000	45.482	0.000	31.024	0.000	0.000	45.692	35.668	80.974	XOMR2_OWSG MWD+IFR1+MS
12600.000	90.000	269.782	9577.000	31.712	0.000	46.214	0.000	31.712	0.000	0.000	46.424	35.679	81.231	XOMR2_OWSG MWD+IFR1+MS
12700.000	90.000	269.782	9577.000	32.405	0.000	46.961	0.000	32.405	0.000	0.000	47.172	35.691	81.472	XOMR2_OWSG MWD+IFR1+MS
12800.000	90.000	269.782	9577.000	33.102	0.000	47.723	0.000	33.102	0.000	0.000	47.934	35.704	81.701	XOMR2_OWSG MWD+IFR1+MS
12900.000	90.000	269.782	9577.000	33.803	0.000	48.499	0.000	33.803	0.000	0.000	48.710	35.718	81.917	XOMR2_OWSG MWD+IFR1+MS
13000.000	90.000	269.782	9577.000	34.508	0.000	49.288	0.000	34.508	0.000	0.000	49.499	35.732	82.122	XOMR2_OWSG MWD+IFR1+MS
13100.000	90.000	269.782	9577.000	35.216	0.000	50.090	0.000	35.216	0.000	0.000	50.300	35.747	82.316	XOMR2_OWSG MWD+IFR1+MS
13200.000	90.000	269.782	9577.000	35.927	0.000	50.904	0.000	35.927	0.000	0.000	51.114	35.763	82.501	XOMR2_OWSG MWD+IFR1+MS
13300.000	90.000	269.782	9577.000	36.641	0.000	51.730	0.000	36.641	0.000	0.000	51.939	35.780	82.677	XOMR2_OWSG MWD+IFR1+MS
13400.000	90.000	269.782	9577.000	37.358	0.000	52.566	0.000	37.358	0.000	0.000	52.774	35.798	82.844	XOMR2_OWSG MWD+IFR1+MS

13500.000	90.000	269.782	9577.000	38.078	0.000	53.413	0.000	38.078	0.000	0.000	53.621	35.816	83.004	XOMR2_OWSG MWD+IFR1+MS
13600.000	90.000	269.782	9577.000	38.800	0.000	54.270	0.000	38.800	0.000	0.000	54.477	35.835	83.156	XOMR2_OWSG MWD+IFR1+MS
13700.000	90.000	269.782	9577.000	39.525	0.000	55.137	0.000	39.525	0.000	0.000	55.342	35.855	83.302	XOMR2_OWSG MWD+IFR1+MS
13800.000	90.000	269.782	9577.000	40.252	0.000	56.013	0.000	40.252	0.000	0.000	56.217	35.875	83.442	XOMR2_OWSG MWD+IFR1+MS
13900.000	90.000	269.782	9577.000	40.981	0.000	56.897	0.000	40.981	0.000	0.000	57.100	35.896	83.576	XOMR2_OWSG MWD+IFR1+MS
14000.000	90.000	269.782	9577.000	41.712	0.000	57.790	0.000	41.712	0.000	0.000	57.991	35.918	83.704	XOMR2_OWSG MWD+IFR1+MS
14100.000	90.000	269.782	9577.000	42.444	0.000	58.691	0.000	42.444	0.000	0.000	58.890	35.940	83.827	XOMR2_OWSG MWD+IFR1+MS
14200.000	90.000	269.782	9577.000	43.179	0.000	59.599	0.000	43.179	0.000	0.000	59.797	35.964	83.945	XOMR2_OWSG MWD+IFR1+MS
14300.000	90.000	269.782	9577.000	43.916	0.000	60.514	0.000	43.916	0.000	0.000	60.711	35.987	84.059	XOMR2_OWSG MWD+IFR1+MS
14400.000	90.000	269.782	9577.000	44.654	0.000	61.437	0.000	44.654	0.000	0.000	61.631	36.012	84.168	XOMR2_OWSG MWD+IFR1+MS
14500.000	90.000	269.782	9577.000	45.393	0.000	62.366	0.000	45.393	0.000	0.000	62.558	36.037	84.273	XOMR2_OWSG MWD+IFR1+MS
14600.000	90.000	269.782	9577.000	46.135	0.000	63.301	0.000	46.135	0.000	0.000	63.492	36.063	84.375	XOMR2_OWSG MWD+IFR1+MS
14700.000	90.000	269.782	9577.000	46.877	0.000	64.242	0.000	46.877	0.000	0.000	64.431	36.089	84.472	XOMR2_OWSG MWD+IFR1+MS
14800.000	90.000	269.782	9577.000	47.621	0.000	65.189	0.000	47.621	0.000	0.000	65.377	36.116	84.567	XOMR2_OWSG MWD+IFR1+MS
14900.000	90.000	269.782	9577.000	48.366	0.000	66.141	0.000	48.366	0.000	0.000	66.327	36.144	84.658	XOMR2_OWSG MWD+IFR1+MS
15000.000	90.000	269.782	9577.000	49.113	0.000	67.099	0.000	49.113	0.000	0.000	67.283	36.172	84.745	XOMR2_OWSG MWD+IFR1+MS
15100.000	90.000	269.782	9577.000	49.861	0.000	68.061	0.000	49.861	0.000	0.000	68.244	36.201	84.830	XOMR2_OWSG MWD+IFR1+MS
15200.000	90.000	269.782	9577.000	50.609	0.000	69.029	0.000	50.609	0.000	0.000	69.210	36.231	84.912	XOMR2_OWSG MWD+IFR1+MS
15300.000	90.000	269.782	9577.000	51.359	0.000	70.001	0.000	51.359	0.000	0.000	70.181	36.261	84.992	XOMR2_OWSG MWD+IFR1+MS
15400.000	90.000	269.782	9577.000	52.110	0.000	70.978	0.000	52.110	0.000	0.000	71.156	36.292	85.069	XOMR2_OWSG MWD+IFR1+MS

15500.000	90.000	269.782	9577.000	52.862	0.000	71.959	0.000	52.862	0.000	0.000	72.135	36.323	85.143	XOMR2_OWSG MWD+IFR1+MS
15600.000	90.000	269.782	9577.000	53.615	0.000	72.944	0.000	53.615	0.000	0.000	73.118	36.355	85.215	XOMR2_OWSG MWD+IFR1+MS
15700.000	90.000	269.782	9577.000	54.368	0.000	73.932	0.000	54.368	0.000	0.000	74.106	36.387	85.285	XOMR2_OWSG MWD+IFR1+MS
15800.000	90.000	269.782	9577.000	55.123	0.000	74.925	0.000	55.123	0.000	0.000	75.097	36.421	85.353	XOMR2_OWSG MWD+IFR1+MS
15900.000	90.000	269.782	9577.000	55.878	0.000	75.921	0.000	55.878	0.000	0.000	76.091	36.454	85.419	XOMR2_OWSG MWD+IFR1+MS
16000.000	90.000	269.782	9577.000	56.635	0.000	76.921	0.000	56.635	0.000	0.000	77.089	36.489	85.483	XOMR2_OWSG MWD+IFR1+MS
16100.000	90.000	269.782	9577.000	57.392	0.000	77.924	0.000	57.392	0.000	0.000	78.091	36.524	85.545	XOMR2_OWSG MWD+IFR1+MS
16200.000	90.000	269.782	9577.000	58.149	0.000	78.931	0.000	58.149	0.000	0.000	79.096	36.559	85.605	XOMR2_OWSG MWD+IFR1+MS
16300.000	90.000	269.782	9577.000	58.908	0.000	79.940	0.000	58.908	0.000	0.000	80.104	36.595	85.664	XOMR2_OWSG MWD+IFR1+MS
16400.000	90.000	269.782	9577.000	59.667	0.000	80.953	0.000	59.667	0.000	0.000	81.115	36.632	85.721	XOMR2_OWSG MWD+IFR1+MS
16500.000	90.000	269.782	9577.000	60.427	0.000	81.968	0.000	60.427	0.000	0.000	82.128	36.669	85.776	XOMR2_OWSG MWD+IFR1+MS
16600.000	90.000	269.782	9577.000	61.187	0.000	82.986	0.000	61.187	0.000	0.000	83.145	36.707	85.830	XOMR2_OWSG MWD+IFR1+MS
16700.000	90.000	269.782	9577.000	61.948	0.000	84.007	0.000	61.948	0.000	0.000	84.164	36.745	85.883	XOMR2_OWSG MWD+IFR1+MS
16800.000	90.000	269.782	9577.000	62.710	0.000	85.030	0.000	62.710	0.000	0.000	85.186	36.784	85.934	XOMR2_OWSG MWD+IFR1+MS
16900.000	90.000	269.782	9577.000	63.472	0.000	86.056	0.000	63.472	0.000	0.000	86.211	36.823	85.984	XOMR2_OWSG MWD+IFR1+MS
17000.000	90.000	269.782	9577.000	64.235	0.000	87.084	0.000	64.235	0.000	0.000	87.237	36.863	86.032	XOMR2_OWSG MWD+IFR1+MS
17100.000	90.000	269.782	9577.000	64.998	0.000	88.114	0.000	64.998	0.000	0.000	88.266	36.904	86.080	XOMR2_OWSG MWD+IFR1+MS
17200.000	90.000	269.782	9577.000	65.761	0.000	89.147	0.000	65.761	0.000	0.000	89.298	36.945	86.126	XOMR2_OWSG MWD+IFR1+MS
17300.000	90.000	269.782	9577.000	66.526	0.000	90.182	0.000	66.526	0.000	0.000	90.331	36.986	86.171	XOMR2_OWSG MWD+IFR1+MS
17400.000	90.000	269.782	9577.000	67.290	0.000	91.219	0.000	67.290	0.000	0.000	91.367	37.028	86.215	XOMR2_OWSG MWD+IFR1+MS

17500.000	90.000	269.782	9577.000	68.056	0.000	92.258	0.000	68.056	0.000	0.000	92.404	37.071	86.258	XOMR2_OWSG MWD+IFR1+MS
17600.000	90.000	269.782	9577.000	68.821	0.000	93.299	0.000	68.821	0.000	0.000	93.444	37.114	86.300	XOMR2_OWSG MWD+IFR1+MS
17700.000	90.000	269.782	9577.000	69.587	0.000	94.342	0.000	69.587	0.000	0.000	94.486	37.158	86.341	XOMR2_OWSG MWD+IFR1+MS
17800.000	90.000	269.782	9577.000	70.354	0.000	95.386	0.000	70.354	0.000	0.000	95.529	37.202	86.380	XOMR2_OWSG MWD+IFR1+MS
17900.000	90.000	269.782	9577.000	71.120	0.000	96.432	0.000	71.120	0.000	0.000	96.574	37.247	86.420	XOMR2_OWSG MWD+IFR1+MS
18000.000	90.000	269.782	9577.000	71.888	0.000	97.481	0.000	71.888	0.000	0.000	97.621	37.293	86.458	XOMR2_OWSG MWD+IFR1+MS
18100.000	90.000	269.782	9577.000	72.655	0.000	98.530	0.000	72.655	0.000	0.000	98.669	37.338	86.495	XOMR2_OWSG MWD+IFR1+MS
18200.000	90.000	269.782	9577.000	73.423	0.000	99.581	0.000	73.423	0.000	0.000	99.719	37.385	86.531	XOMR2_OWSG MWD+IFR1+MS
18300.000	90.000	269.782	9577.000	74.192	0.000	100.634	0.000	74.192	0.000	0.000	100.771	37.432	86.567	XOMR2_OWSG MWD+IFR1+MS
18400.000	90.000	269.782	9577.000	74.960	0.000	101.689	0.000	74.960	0.000	0.000	101.824	37.479	86.602	XOMR2_OWSG MWD+IFR1+MS
18500.000	90.000	269.782	9577.000	75.729	0.000	102.744	0.000	75.729	0.000	0.000	102.879	37.527	86.636	XOMR2_OWSG MWD+IFR1+MS
18600.000	90.000	269.782	9577.000	76.498	0.000	103.802	0.000	76.498	0.000	0.000	103.935	37.575	86.670	XOMR2_OWSG MWD+IFR1+MS
18700.000	90.000	269.782	9577.000	77.268	0.000	104.860	0.000	77.268	0.000	0.000	104.992	37.624	86.702	XOMR2_OWSG MWD+IFR1+MS
18800.000	90.000	269.782	9577.000	78.038	0.000	105.920	0.000	78.038	0.000	0.000	106.051	37.674	86.734	XOMR2_OWSG MWD+IFR1+MS
18900.000	90.000	269.782	9577.000	78.808	0.000	106.981	0.000	78.808	0.000	0.000	107.111	37.724	86.766	XOMR2_OWSG MWD+IFR1+MS
19000.000	90.000	269.782	9577.000	79.579	0.000	108.044	0.000	79.579	0.000	0.000	108.172	37.774	86.796	XOMR2_OWSG MWD+IFR1+MS
19100.000	90.000	269.782	9577.000	80.350	0.000	109.107	0.000	80.350	0.000	0.000	109.235	37.825	86.827	XOMR2_OWSG MWD+IFR1+MS
19200.000	90.000	269.782	9577.000	81.121	0.000	110.172	0.000	81.121	0.000	0.000	110.299	37.877	86.856	XOMR2_OWSG MWD+IFR1+MS
19300.000	90.000	269.782	9577.000	81.892	0.000	111.238	0.000	81.892	0.000	0.000	111.364	37.929	86.885	XOMR2_OWSG MWD+IFR1+MS
19400.000	90.000	269.782	9577.000	82.663	0.000	112.305	0.000	82.663	0.000	0.000	112.430	37.981	86.913	XOMR2_OWSG MWD+IFR1+MS

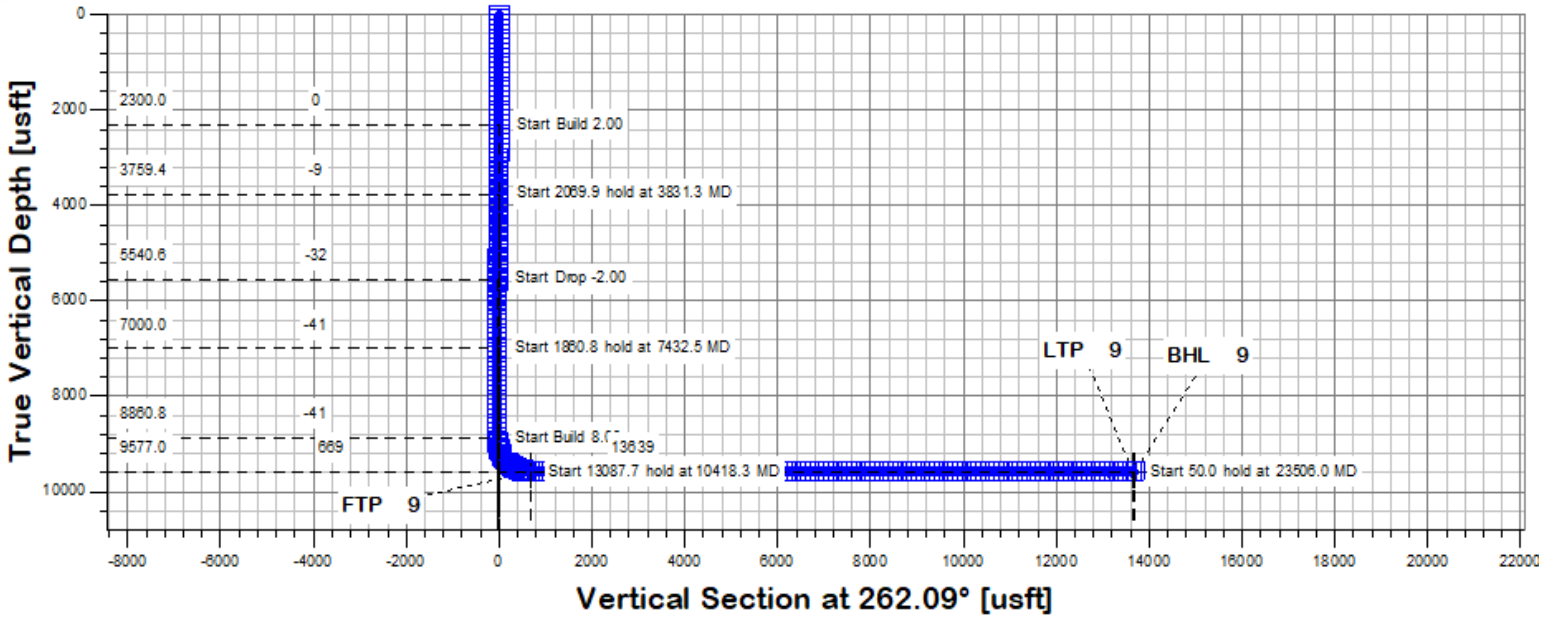
19500.000	90.000	269.782	9577.000	83.435	0.000	113.373	0.000	83.435	0.000	0.000	113.497	38.034	86.941	XOMR2_OWSG MWD+IFR1+MS
19600.000	90.000	269.782	9577.000	84.207	0.000	114.442	0.000	84.207	0.000	0.000	114.565	38.088	86.969	XOMR2_OWSG MWD+IFR1+MS
19700.000	90.000	269.782	9577.000	84.980	0.000	115.512	0.000	84.980	0.000	0.000	115.634	38.141	86.995	XOMR2_OWSG MWD+IFR1+MS
19800.000	90.000	269.782	9577.000	85.752	0.000	116.583	0.000	85.752	0.000	0.000	116.704	38.196	87.022	XOMR2_OWSG MWD+IFR1+MS
19900.000	90.000	269.782	9577.000	86.525	0.000	117.655	0.000	86.525	0.000	0.000	117.775	38.251	87.047	XOMR2_OWSG MWD+IFR1+MS
20000.000	90.000	269.782	9577.000	87.298	0.000	118.729	0.000	87.298	0.000	0.000	118.848	38.306	87.073	XOMR2_OWSG MWD+IFR1+MS
20100.000	90.000	269.782	9577.000	88.071	0.000	119.802	0.000	88.071	0.000	0.000	119.921	38.362	87.097	XOMR2_OWSG MWD+IFR1+MS
20200.000	90.000	269.782	9577.000	88.844	0.000	120.877	0.000	88.844	0.000	0.000	120.995	38.418	87.122	XOMR2_OWSG MWD+IFR1+MS
20300.000	90.000	269.782	9577.000	89.618	0.000	121.953	0.000	89.618	0.000	0.000	122.069	38.475	87.146	XOMR2_OWSG MWD+IFR1+MS
20400.000	90.000	269.782	9577.000	90.392	0.000	123.030	0.000	90.392	0.000	0.000	123.145	38.532	87.169	XOMR2_OWSG MWD+IFR1+MS
20500.000	90.000	269.782	9577.000	91.165	0.000	124.107	0.000	91.165	0.000	0.000	124.222	38.590	87.192	XOMR2_OWSG MWD+IFR1+MS
20600.000	90.000	269.782	9577.000	91.940	0.000	125.185	0.000	91.940	0.000	0.000	125.299	38.648	87.215	XOMR2_OWSG MWD+IFR1+MS
20700.000	90.000	269.782	9577.000	92.714	0.000	126.264	0.000	92.714	0.000	0.000	126.377	38.707	87.237	XOMR2_OWSG MWD+IFR1+MS
20800.000	90.000	269.782	9577.000	93.488	0.000	127.344	0.000	93.488	0.000	0.000	127.456	38.766	87.259	XOMR2_OWSG MWD+IFR1+MS
20900.000	90.000	269.782	9577.000	94.263	0.000	128.424	0.000	94.263	0.000	0.000	128.535	38.825	87.281	XOMR2_OWSG MWD+IFR1+MS
21000.000	90.000	269.782	9577.000	95.038	0.000	129.505	0.000	95.038	0.000	0.000	129.616	38.885	87.302	XOMR2_OWSG MWD+IFR1+MS
21100.000	90.000	269.782	9577.000	95.813	0.000	130.587	0.000	95.813	0.000	0.000	130.697	38.946	87.323	XOMR2_OWSG MWD+IFR1+MS
21200.000	90.000	269.782	9577.000	96.588	0.000	131.670	0.000	96.588	0.000	0.000	131.779	39.007	87.343	XOMR2_OWSG MWD+IFR1+MS
21300.000	90.000	269.782	9577.000	97.363	0.000	132.753	0.000	97.363	0.000	0.000	132.861	39.068	87.364	XOMR2_OWSG MWD+IFR1+MS
21400.000	90.000	269.782	9577.000	98.139	0.000	133.837	0.000	98.139	0.000	0.000	133.944	39.130	87.383	XOMR2_OWSG MWD+IFR1+MS

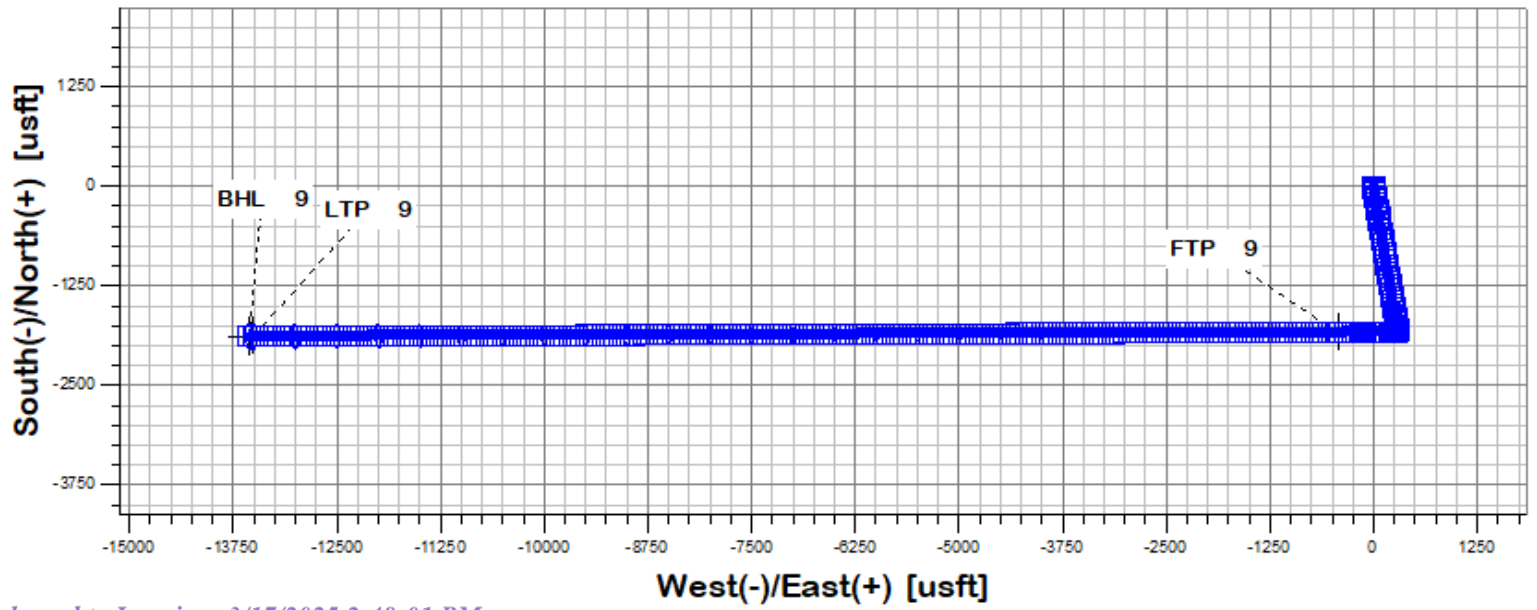
21500.000	90.000	269.782	9577.000	98.914	0.000	134.921	0.000	98.914	0.000	0.000	135.028	39.192	87.403	XOMR2_OWSG MWD+IFR1+MS
21600.000	90.000	269.782	9577.000	99.690	0.000	136.006	0.000	99.690	0.000	0.000	136.112	39.255	87.422	XOMR2_OWSG MWD+IFR1+MS
21700.000	90.000	269.782	9577.000	100.466	0.000	137.092	0.000	100.466	0.000	0.000	137.197	39.318	87.441	XOMR2_OWSG MWD+IFR1+MS
21800.000	90.000	269.782	9577.000	101.242	0.000	138.178	0.000	101.242	0.000	0.000	138.283	39.381	87.460	XOMR2_OWSG MWD+IFR1+MS
21900.000	90.000	269.782	9577.000	102.018	0.000	139.265	0.000	102.018	0.000	0.000	139.369	39.445	87.478	XOMR2_OWSG MWD+IFR1+MS
22000.000	90.000	269.782	9577.000	102.794	0.000	140.353	0.000	102.794	0.000	0.000	140.456	39.510	87.496	XOMR2_OWSG MWD+IFR1+MS
22100.000	90.000	269.782	9577.000	103.571	0.000	141.441	0.000	103.571	0.000	0.000	141.543	39.575	87.514	XOMR2_OWSG MWD+IFR1+MS
22200.000	90.000	269.782	9577.000	104.347	0.000	142.529	0.000	104.347	0.000	0.000	142.631	39.640	87.531	XOMR2_OWSG MWD+IFR1+MS
22300.000	90.000	269.782	9577.000	105.124	0.000	143.618	0.000	105.124	0.000	0.000	143.719	39.706	87.548	XOMR2_OWSG MWD+IFR1+MS
22400.000	90.000	269.782	9577.000	105.901	0.000	144.708	0.000	105.901	0.000	0.000	144.808	39.772	87.565	XOMR2_OWSG MWD+IFR1+MS
22500.000	90.000	269.782	9577.000	106.678	0.000	145.798	0.000	106.678	0.000	0.000	145.898	39.838	87.582	XOMR2_OWSG MWD+IFR1+MS
22600.000	90.000	269.782	9577.000	107.455	0.000	146.889	0.000	107.455	0.000	0.000	146.987	39.905	87.598	XOMR2_OWSG MWD+IFR1+MS
22700.000	90.000	269.782	9577.000	108.232	0.000	147.980	0.000	108.232	0.000	0.000	148.078	39.973	87.614	XOMR2_OWSG MWD+IFR1+MS
22800.000	90.000	269.782	9577.000	109.009	0.000	149.071	0.000	109.009	0.000	0.000	149.169	40.041	87.630	XOMR2_OWSG MWD+IFR1+MS
22900.000	90.000	269.782	9577.000	109.786	0.000	150.163	0.000	109.786	0.000	0.000	150.260	40.109	87.646	XOMR2_OWSG MWD+IFR1+MS
23000.000	90.000	269.782	9577.000	110.564	0.000	151.256	0.000	110.564	0.000	0.000	151.352	40.177	87.661	XOMR2_OWSG MWD+IFR1+MS
23100.000	90.000	269.782	9577.000	111.341	0.000	152.348	0.000	111.341	0.000	0.000	152.444	40.247	87.677	XOMR2_OWSG MWD+IFR1+MS
23200.000	90.000	269.782	9577.000	112.119	0.000	153.442	0.000	112.119	0.000	0.000	153.537	40.316	87.692	XOMR2_OWSG MWD+IFR1+MS
23300.000	90.000	269.782	9577.000	112.897	0.000	154.536	0.000	112.897	0.000	0.000	154.630	40.386	87.707	XOMR2_OWSG MWD+IFR1+MS
23400.000	90.000	269.782	9577.000	113.674	0.000	155.630	0.000	113.674	0.000	0.000	155.724	40.456	87.721	XOMR2_OWSG MWD+IFR1+MS

23506.000	90.000	269.782	9577.000	114.499	0.000	156.790	0.000	114.499	0.000	0.000	156.883	40.531	87.736	XOMR2_OWSG MWD+IFR1+MS
23558.561	90.000	269.782	9577.000	114.908	0.000	157.365	0.000	114.908	0.000	0.000	157.458	40.568	87.744	XOMR2_OWSG MWD+IFR1+MS

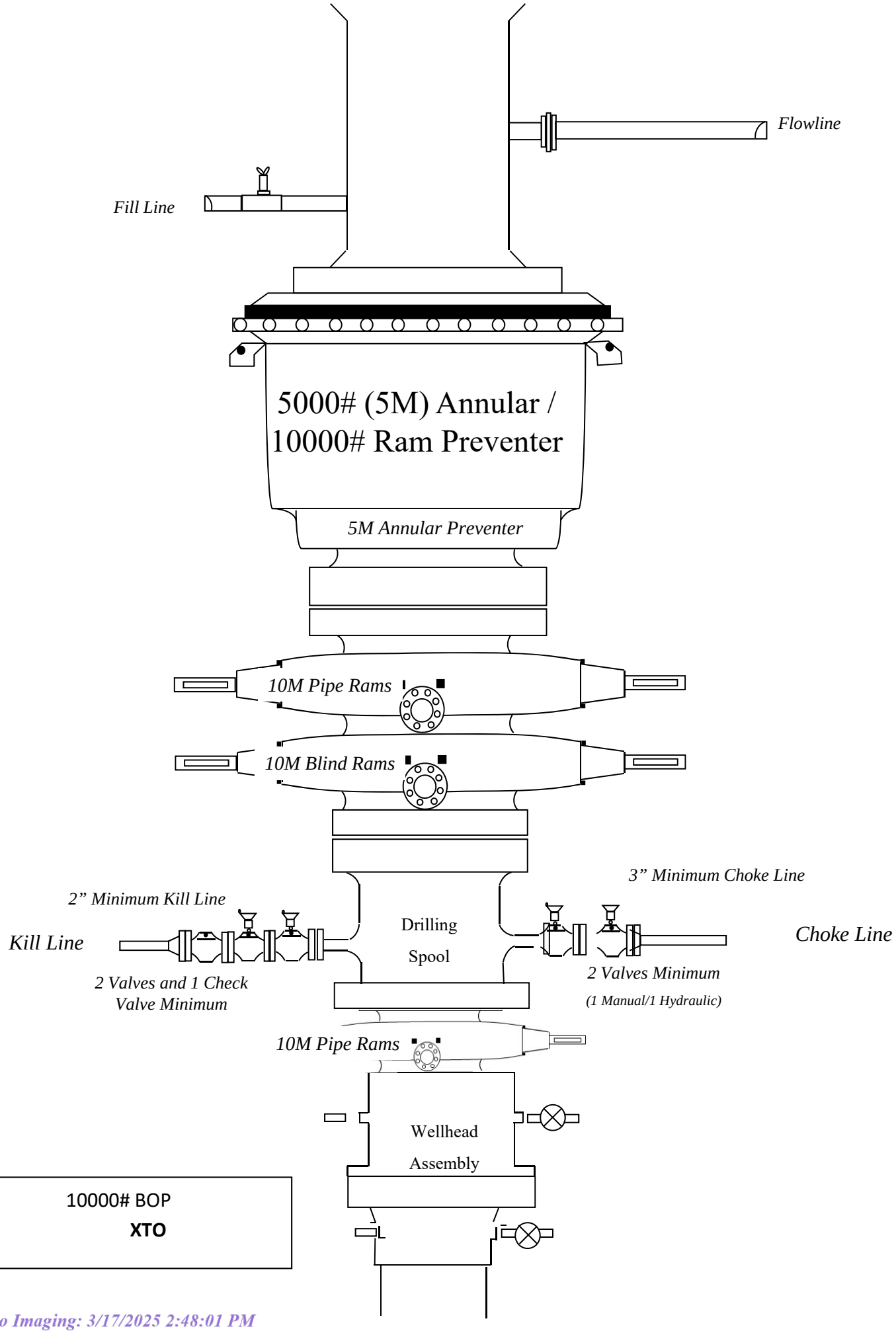
Plan Targets BEU DI 5 27-29 8H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 9	10418.30	560670.40	646891.20	6020.00	CIRCLE
LTP 9	23506.00	560620.60	633803.60	6020.00	CIRCLE
BHL 9	23556.00	560620.40	633753.60	6020.00	CIRCLE





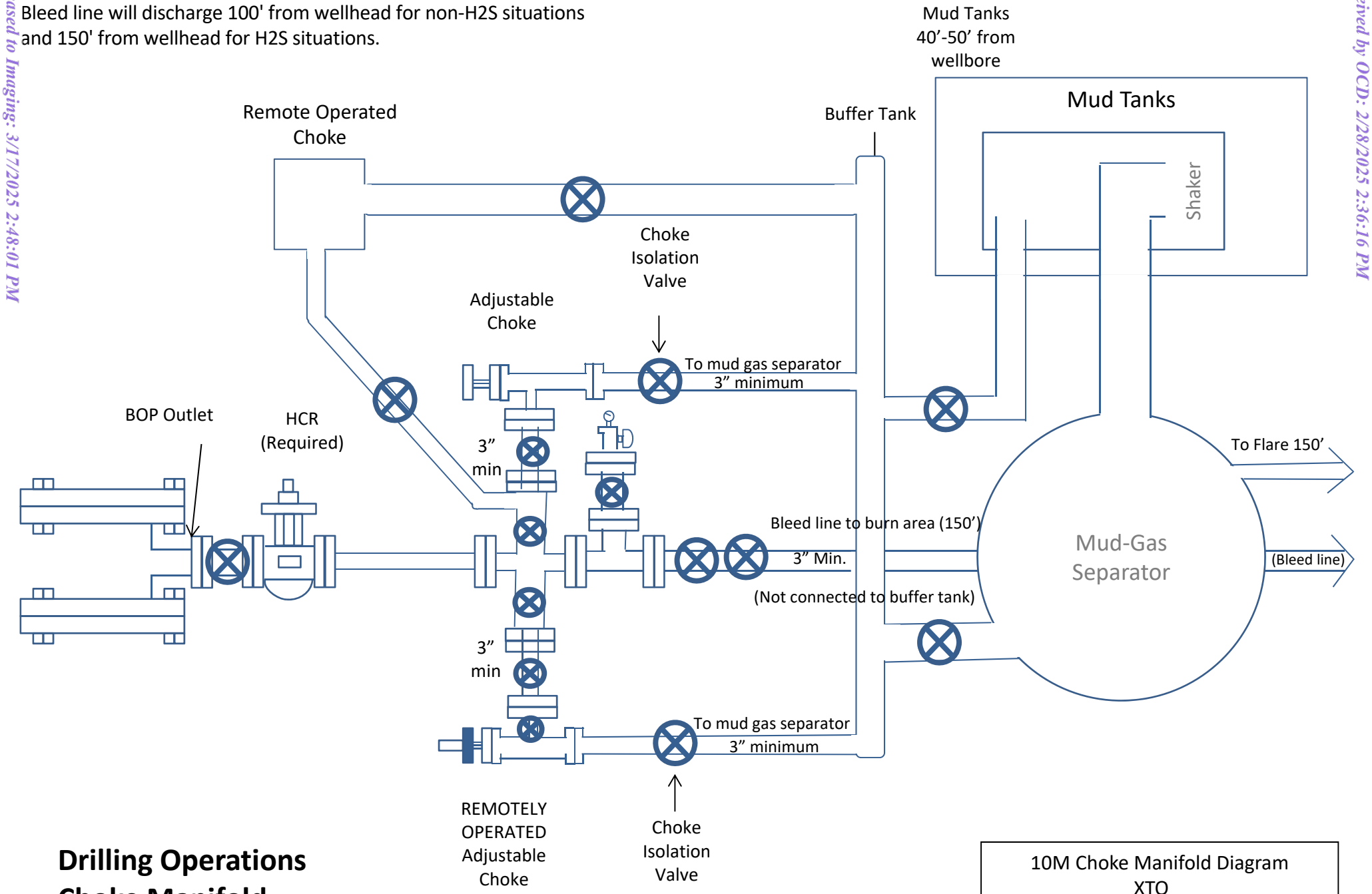
Formation	TVDSS (feet)	TVD (feet)
Rustler	2,882'	675'
Salado	2,606'	951'
Base Salt	1,354'	2,203'
Capitan Reef	694'	2,863'
Delaware Ss.	-381'	3,938'
Brushy Canyon Ss.	-2,338'	5,895'
Basal Brushy Canyon Ss.	-3,727'	7,284'
Bone Spring Lime	-3,914'	7,471'
Avalon Shale Upper SH	-4,109'	7,666'
Avalon Mid Carb	-4,453'	8,010'
Avalon Shale Lower SH	-4,612'	8,169'
1st Bone Spring Lime	-4,847'	8,404'
1st Bone Spring Sand	-5,188'	8,745'
2nd Bone Spring Lime	-5,549'	9,106'
2nd Bone Spring Sand	-5,649'	9,206'
2nd Bone Spring B Sand	-5,833'	9,390'
Landing Point	-6,020'	9,577'
2nd Bone Spring C Sand	-6,044'	9,601'
3rd Bone Spring Lime	-6,259'	9,816'



10000# BOP

XTO

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



Drilling Operations
Choke Manifold
10M Service

10M Choke Manifold Diagram
XTO

U. S. Steel Tubular Products

11/8/2023 1:08:50 PM

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

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	--

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.

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

U. S. Steel Tubular Products

11/29/2021 4:16:04 PM

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

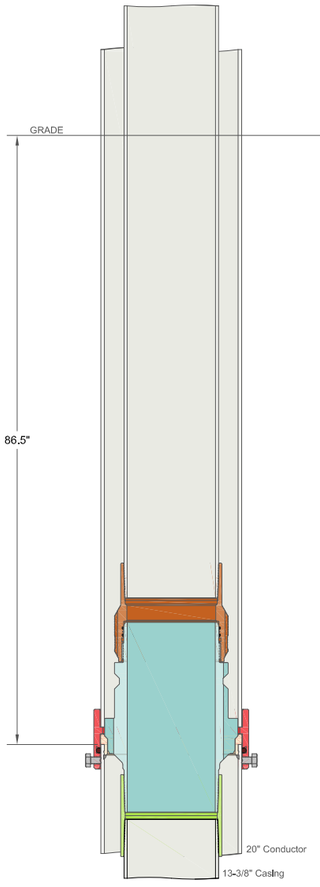
MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	**Pipe**	**USS-TALON HTQ™ RD**		**--**
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	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]

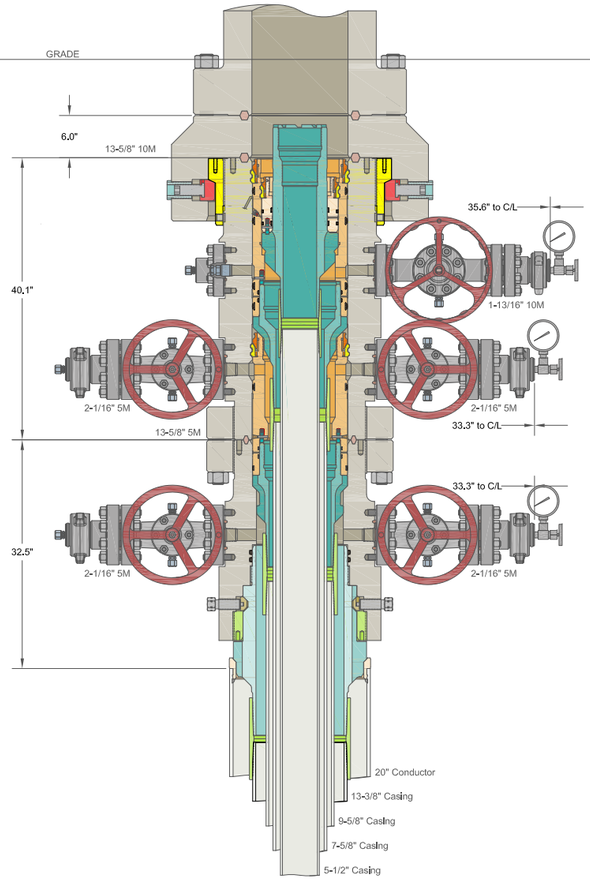
Notes

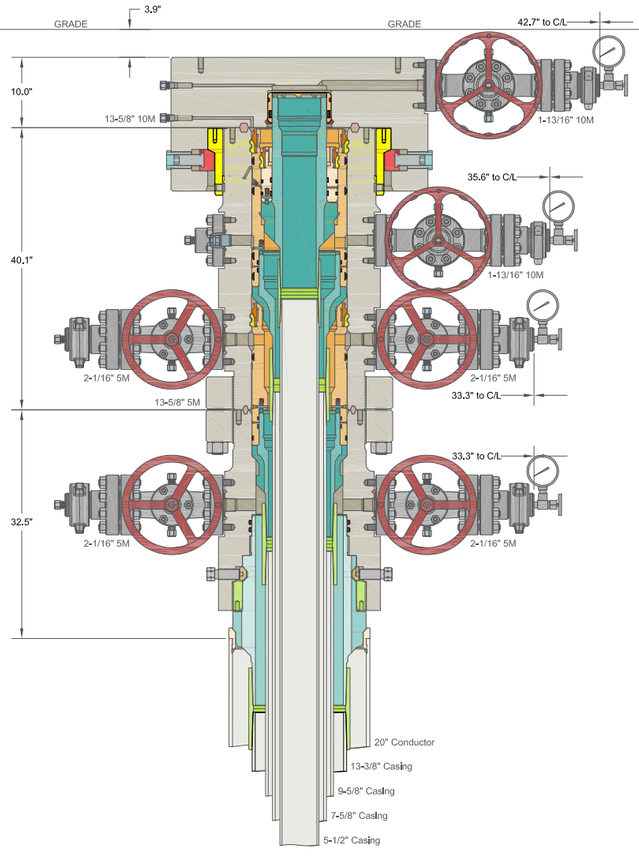
1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength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

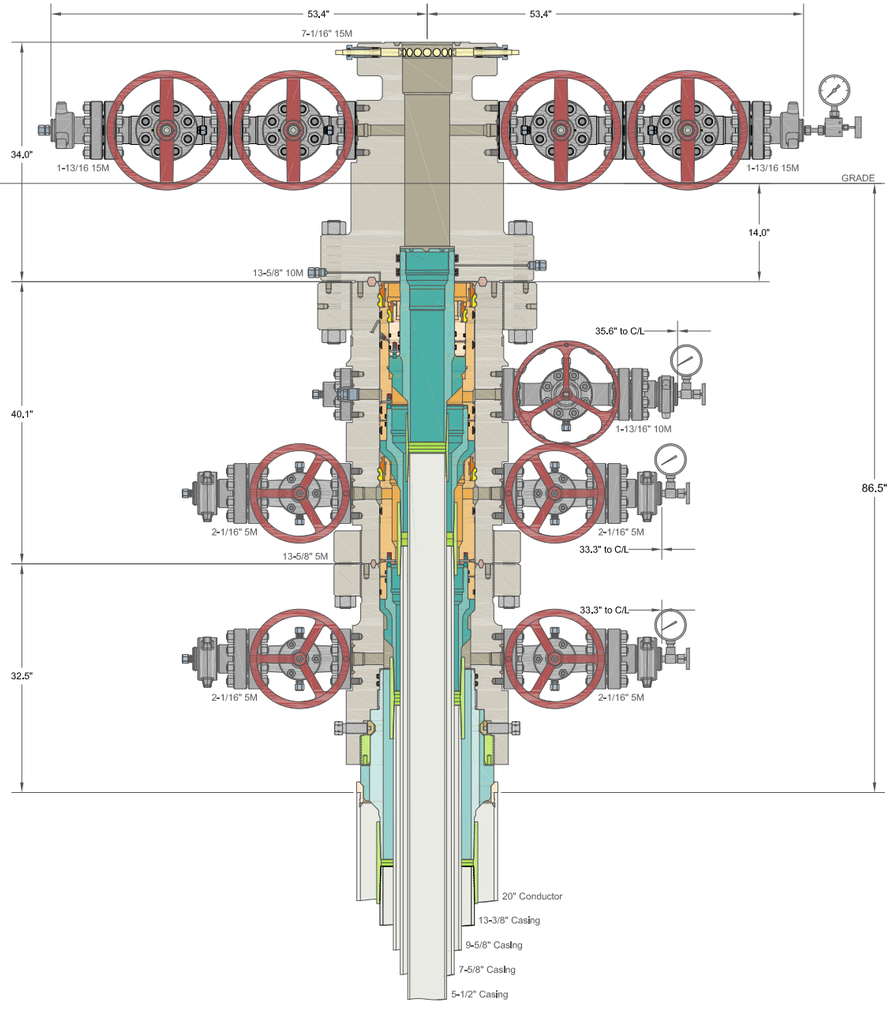
U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com









ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

(20") x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head
And Drilling & Skid Configurations

XTO ENERGY INC
DELAWARE BASIN

DRAWN	VJK	31MAR22
APPRV		

DRAWING NO. SDT-3301

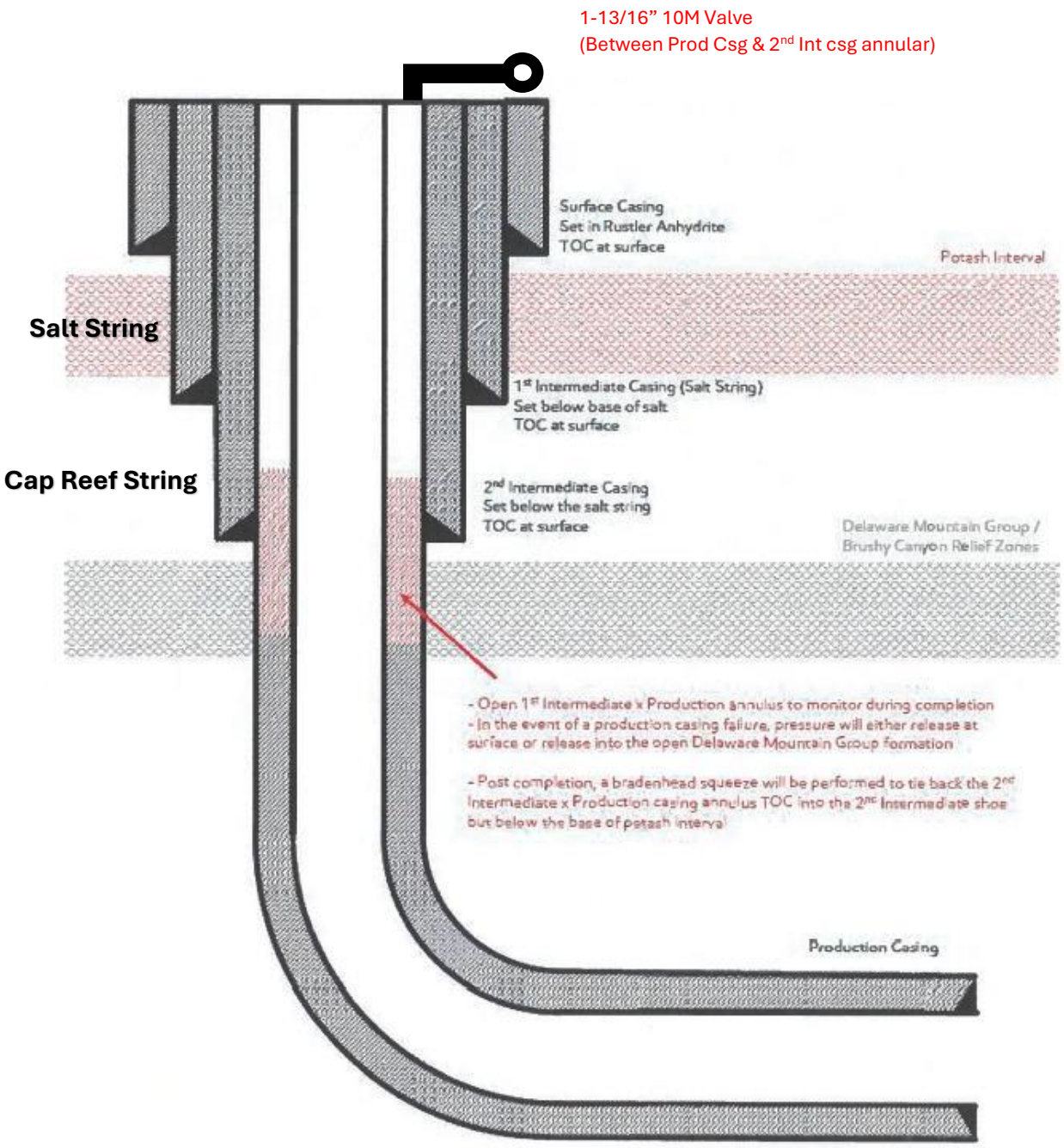


Figure E

Updated May 2024:

XTO is aware of the R-111-Q update and will comply with these requirements including (but not limited to):

1. Alignment with KPLA requirements per schematic above, leaving open annulus for pressure mnoitoring during frac and utilizing new casing that meets API standards.
2. Contingency plans in place to divert formation fluids away fromm salt interval in even of production casin failure.
3. Bradenhead squeeze to be completed within 180 days to tie back TOC to salt string at least 500ft but with top below Marker Bed 126.
4. Productin Cement to be tied back no less than 500ft inside previous casing shoe

BLACK GOLD®

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/oilandgas

NEW CHOKE HOSE INSTALLED 02-10-2024

CERTIFICATE OF CONFORMANCE

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

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

SIGNATURE: F. OSPINOS

TITLE: QUALITY ASSURANCE

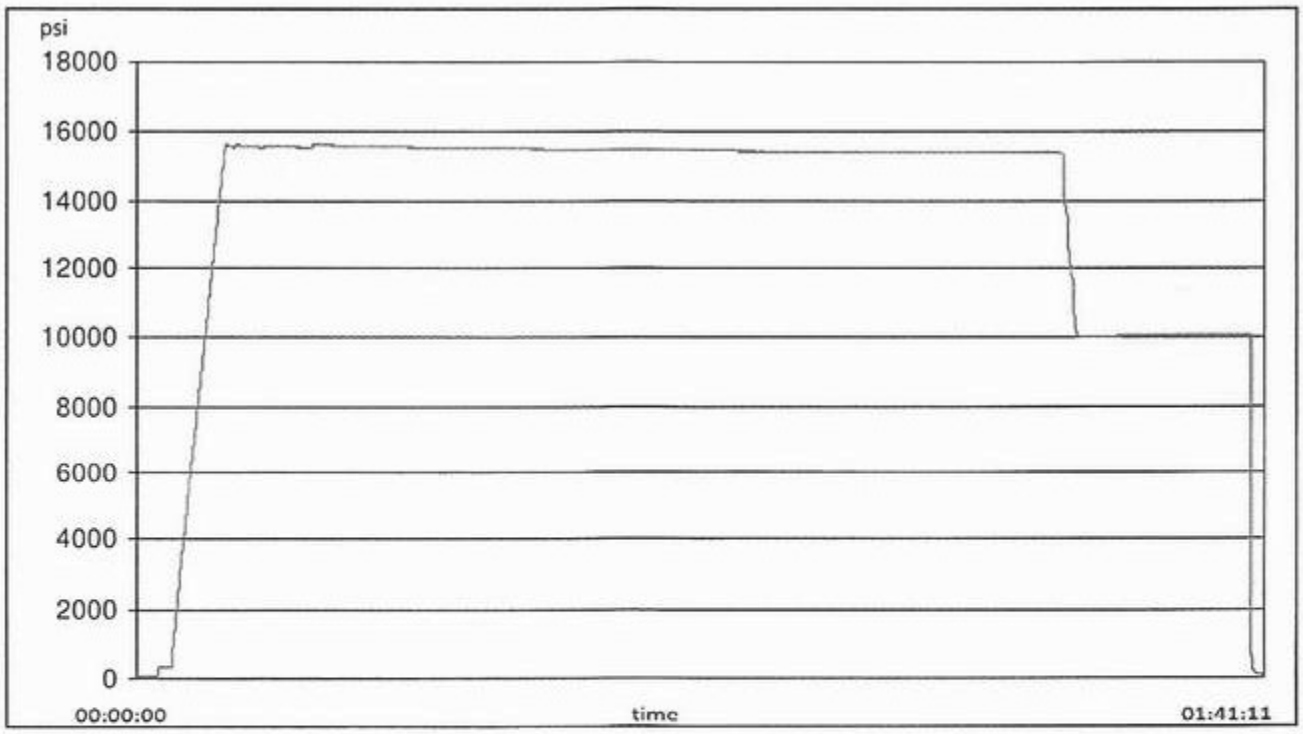
DATE: 1/25/2024

H3-15716

1/25/2024 11:48:06 AM

TEST REPORT

CUSTOMER			TEST OBJECT		
Company:	Nabors Industries Inc.		Serial number:	H3-012524-1	
			Lot number:		
Production description:	74621/66-1531		Description:	74621/66-1531	
Sales order #:	529480				
Customer reference:	FG1213		Hose ID:	3" 16C CK	
			Part number:		
TEST INFORMATION					
Test procedure:	GTS-04-053		Fitting 1:	3.0 x 4-1/16 10K	
Test pressure:	15000.00	psi	Part number:		
Test pressure hold:	3600.00	sec	Description:		
Work pressure:	10000.00	psi			
Work pressure hold:	900.00	sec	Fitting 2:	3.0 x 4-1/16 10K	
Length difference:	0.00	%	Part number:		
Length difference:	0.00	inch	Description:		
Visual check:			Length:	45	feet
Pressure test result:	PASS				
Length measurement result:					
Test operator:	Travis				



H3-15/16

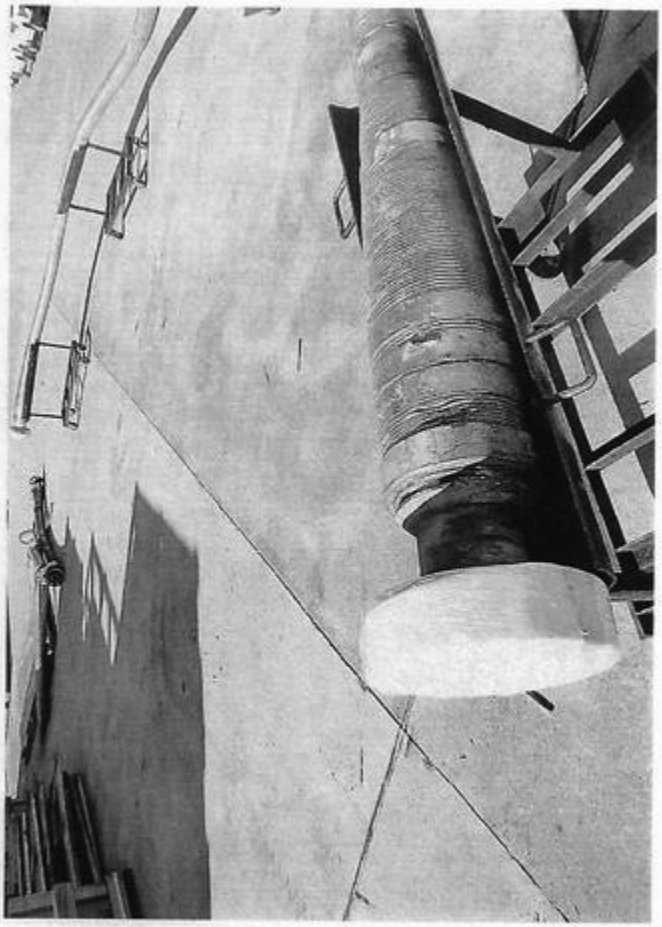
1/25/2024 11:48:06 AM

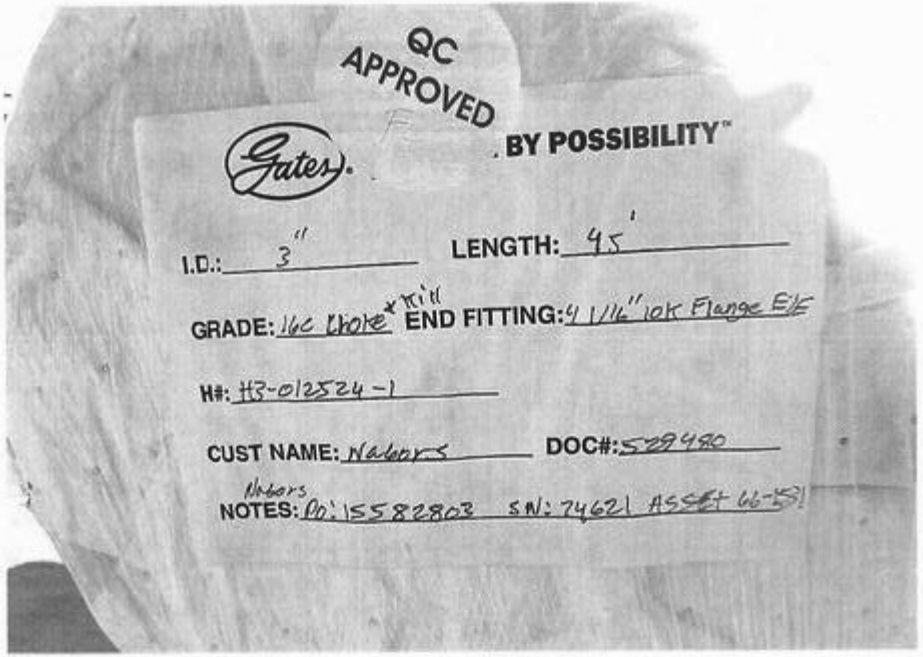
TEST REPORT

GAUGE TRACEABILITY

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

Comment





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

Description of Operations:

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

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

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

Background

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

Supporting Documentation

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

Figure 1: Winch System attached to BOP Stack

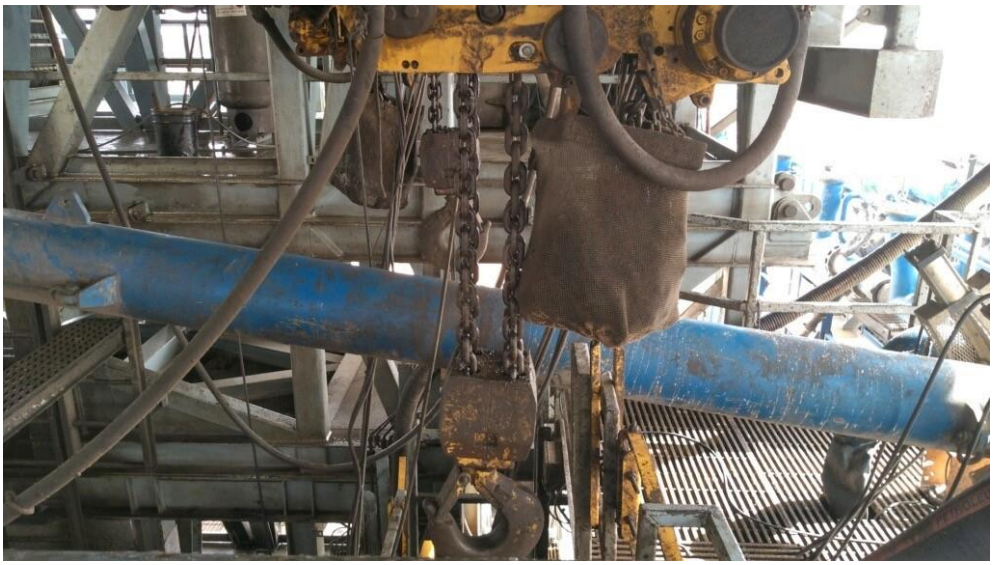


Figure 2: BOP Winch System

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

62 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.

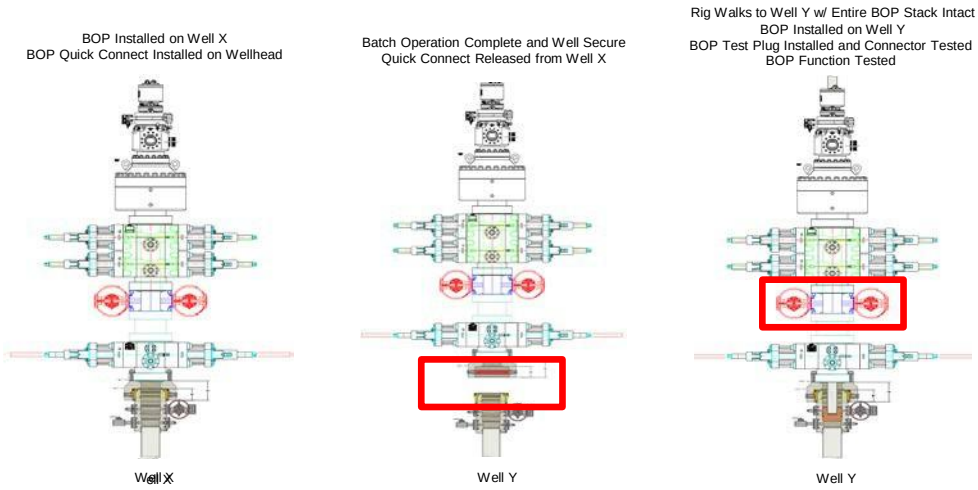
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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

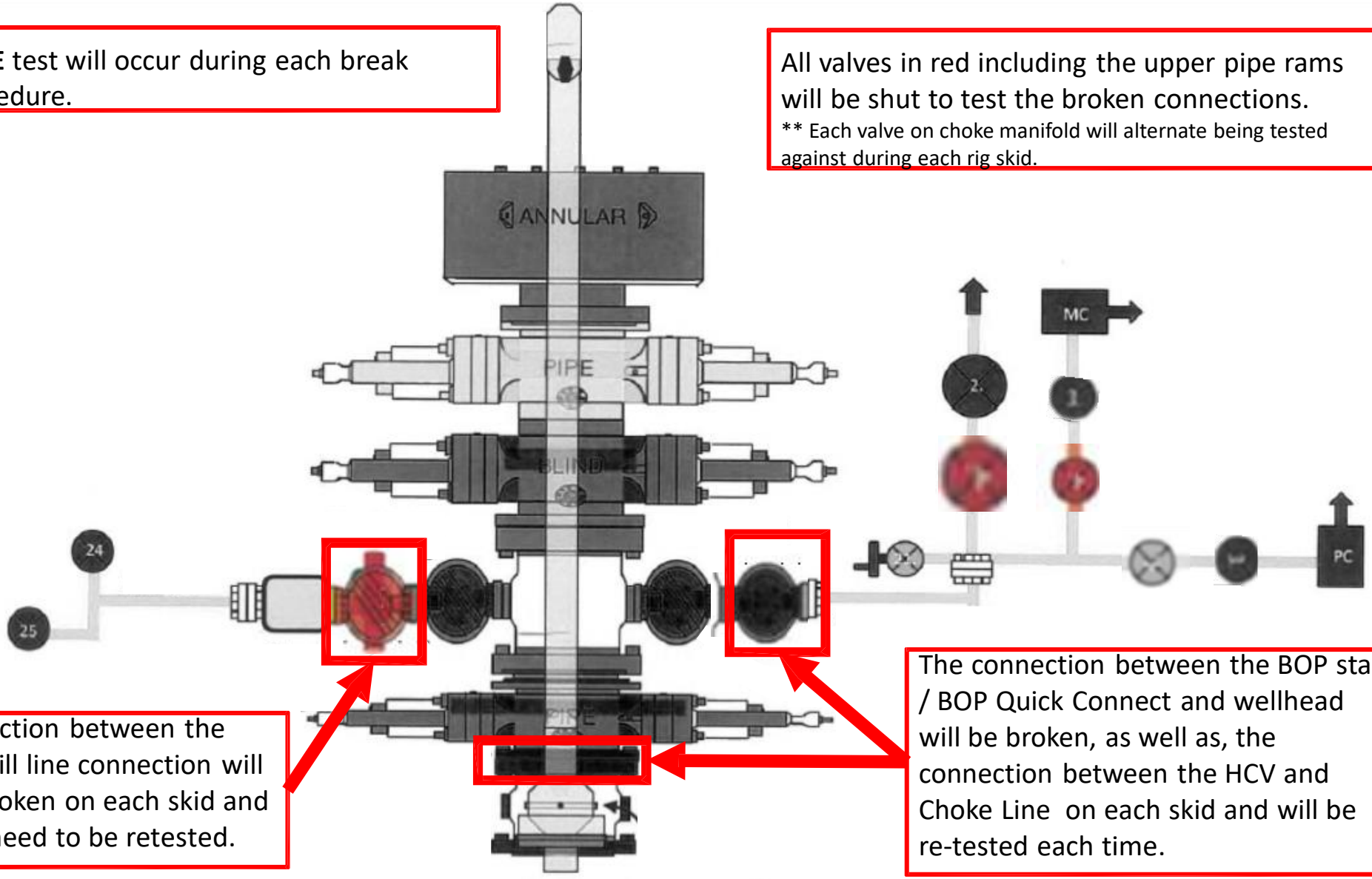
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.

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 Permian Operating, LLC Offline Cementing Variance Request

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

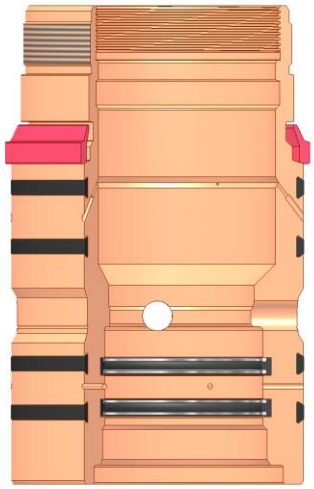
1. Cement Program

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

2. Offline Cementing Procedure

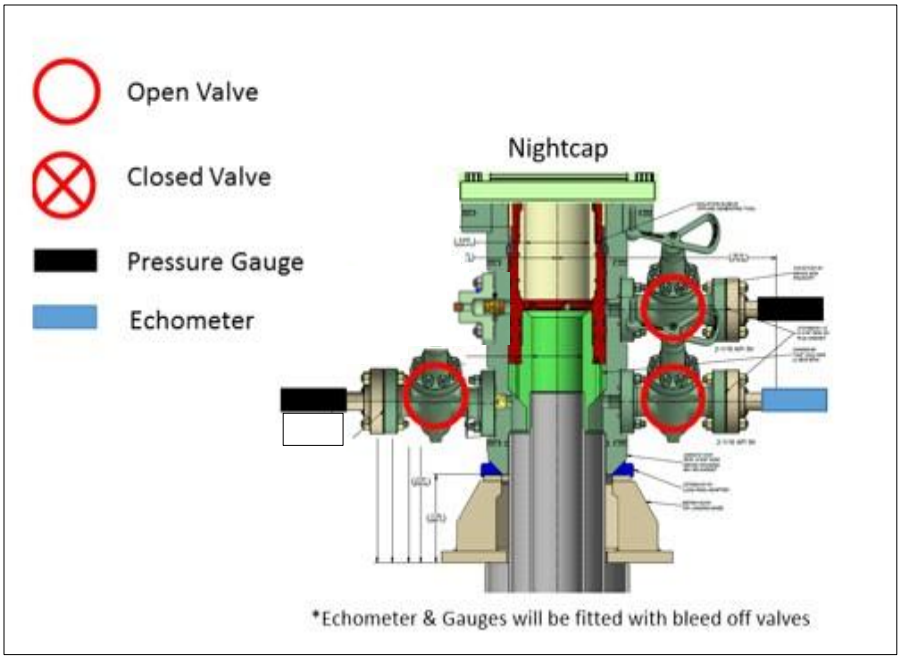
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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



Annular packoff with both external and internal seals

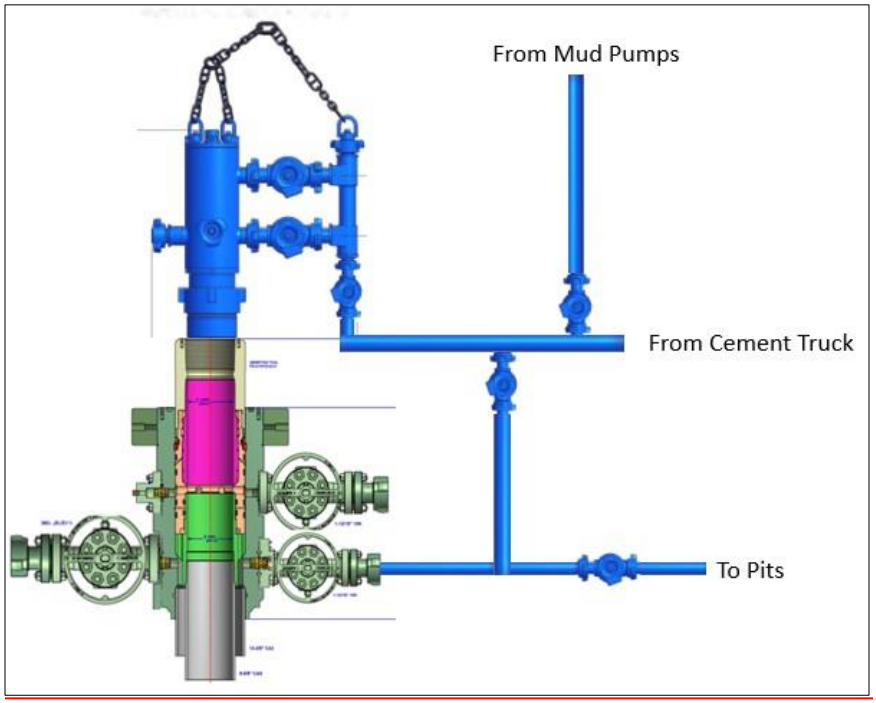
XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during skidding operations

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

XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during offline cementing operations

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

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Operator:	OGRID:
XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	373075
	Action Number: 437884
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	3/17/2025