

Well Name: BIG EDDY UNIT DI 5 WEST 27-20	Well Location: T20S / R31E / SEC 27 / SWNE / 32.54674 / -103.85568	County or Parish/State: EDDY / NM
Well Number: 1H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMLC065944A	Unit or CA Name: BIG EDDY	Unit or CA Number: NMNM68294X
US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Notice of Intent

Sundry ID: 2832706

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 01/20/2025	Time Sundry Submitted: 05:38
Date proposed operation will begin: 01/24/2025	

Procedure Description: Big Eddy Unit DI 5 West 27-20 1H APD ID# 10400093502 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: 1745' FNL & 2230' FEL OF SECTION 27-T20S-R31E 1670' FNL & 2140' FEL OF SECTION 27-T20S-R31E KOP: 1745' FNL & 2230' FEL OF SECTION 27-T20S-R31E 2197' FSL & 616' FWL OF SECTION 23-T20S-R31E FTP: 2310' FSL & 1320' FEL OF SECTION 22-T20S-R31E 2200' FSL & 100' FEL OF SECTION 22-T20S-R31E LTP: 2310' FSL & 100' FWL OF SECTION 20-T20S-R31E 2200' FSL & 100' FWL OF SECTION 20-T20S-R31E BHL: 2310' FSL & 50' FWL OF SECTION 20-T20S-R31E 2200' FSL & 50' FWL OF SECTION 20-T20S-R31E The proposed total depth is changing from 25765' MD/9730' TVD to 28113.7' MD/9659' 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. Attachments: C-102, Drilling Program, Directional Plan, Choke Manifold Diagram, BOP Diagram, MBS diagram.

NOI Attachments

Procedure Description

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US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Conditions of Approval

Additional

BEU_DI_5_West_27_20_1H_COA_20250227145639.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 06:55 AM

Name: XTO PERMIAN OPERATING LLC

Title: REGULATORY ANALYST

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRINGState: 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 <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No.
		6. If Indian, Allottee or Tribe Name

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

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

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

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

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

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

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

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

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

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

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

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

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

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Information

Additional Remarks

BHL: 2310' FSL & 50' FWL OF SECTION 20-T20S-R31E 2200' FSL & 50' FWL OF SECTION 20-T20S-R31E

The proposed total depth is changing from 25765 MD/9730 TVD to 28113.7 MD/9659 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.

Attachments: C-102, Drilling Program, Directional Plan, Choke Manifold Diagram, BOP Diagram, MBS diagram.

Location of Well

0. SHL: SWNE / 1745 FNL / 2230 FEL / TWSP: 20S / RANGE: 31E / SECTION: 27 / LAT: 32.54674 / LONG: -103.85568 (TVD: 0 feet, MD: 0 feet)

PPP: NESE / 2307 FSL / 0 FWL / TWSP: 20S / RANGE: 31E / SECTION: 20 / LAT: 32.557915 / LONG: -103.882734 (TVD: 9730 feet, MD: 20600 feet)

PPP: NWSE / 2301 FSL / 1327 FEL / TWSP: 20S / RANGE: 31E / SECTION: 21 / LAT: 32.557898 / LONG: -103.869825 (TVD: 9730 feet, MD: 16600 feet)

PPP: NESE / 2299 FSL / 0 FWL / TWSP: 20S / RANGE: 31E / SECTION: 21 / LAT: 32.557893 / LONG: -103.865519 (TVD: 9730 feet, MD: 15300 feet)

PPP: NWSE / 2310 FSL / 1320 FEL / TWSP: 20S / RANGE: 31E / SECTION: 22 / LAT: 32.557875 / LONG: -103.85273 (TVD: 9730 feet, MD: 11300 feet)

PPP: NWSW / 2302 FSL / 1316 FWL / TWSP: 20S / RANGE: 31E / SECTION: 22 / LAT: 32.557887 / LONG: -103.861249 (TVD: 9730 feet, MD: 14000 feet)

BHL: NWSW / 2310 FSL / 50 FWL / TWSP: 20S / RANGE: 31E / SECTION: 20 / LAT: 32.557934 / LONG: -103.899807 (TVD: 9730 feet, MD: 25765 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	NMLC065873A
LOCATION:	Sec. 27, T.20 S, R 31 E
COUNTY:	Eddy County, New Mexico ▼
WELL NAME & NO.:	Big Eddy Unit DI 5 West 27-20 1H
SURFACE HOLE FOOTAGE:	1670'/N & 2140'/E
BOTTOM HOLE FOOTAGE:	2200'/S & 50'/W

Changes approved through engineering via **Sundry 2832706** on 2/27/2025. Any previous COAs not addressed within the updated COAs still apply.

COA

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

A. HYDROGEN SULFIDE

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

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 **850** 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** inch 2nd 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.

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.

- ❖ **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**.

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:	<input type="checkbox"/> Initial Submittal
			<input checked="" type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION INFORMATION			
API Number 30-015-	Pool Code 97650	Pool Name WC WILLIAMS SINK; BONE SPRING	
Property Code	Property Name BIG EDDY UNIT DI 5 WEST 27-20	Well Number 1H	
OGRID No. 373075	Operator Name XTO PERMIAN OPERATING, LLC.	Ground Level Elevation 3,524'	
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal	

Surface Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
G	27	20S	31E		1,670 FNL	2,140 FEL	32.546946	-103.855386	EDDY

Bottom Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	20	20S	31E		2,200 FSL	50 FWL	32.557634	-103.899806	EDDY


Dedicated Acres 480.00	Infill or Defining Well DEFINING	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code U
Order Numbers.			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	23	20S	31E		2,197 FSL	616 FWL	32.557553	-103.846446	EDDY

First Take Point (FTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	22	20S	31E		2,200 FSL	100 FEL	32.557557	-103.848771	EDDY

Last Take Point (LTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	20	20S	31E		2,200 FSL	100 FWL	32.557633	-103.899644	EDDY

Unitized Area or Area of Interest NMNM-105467880	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation 3,524'
--	--	-----------------------------------

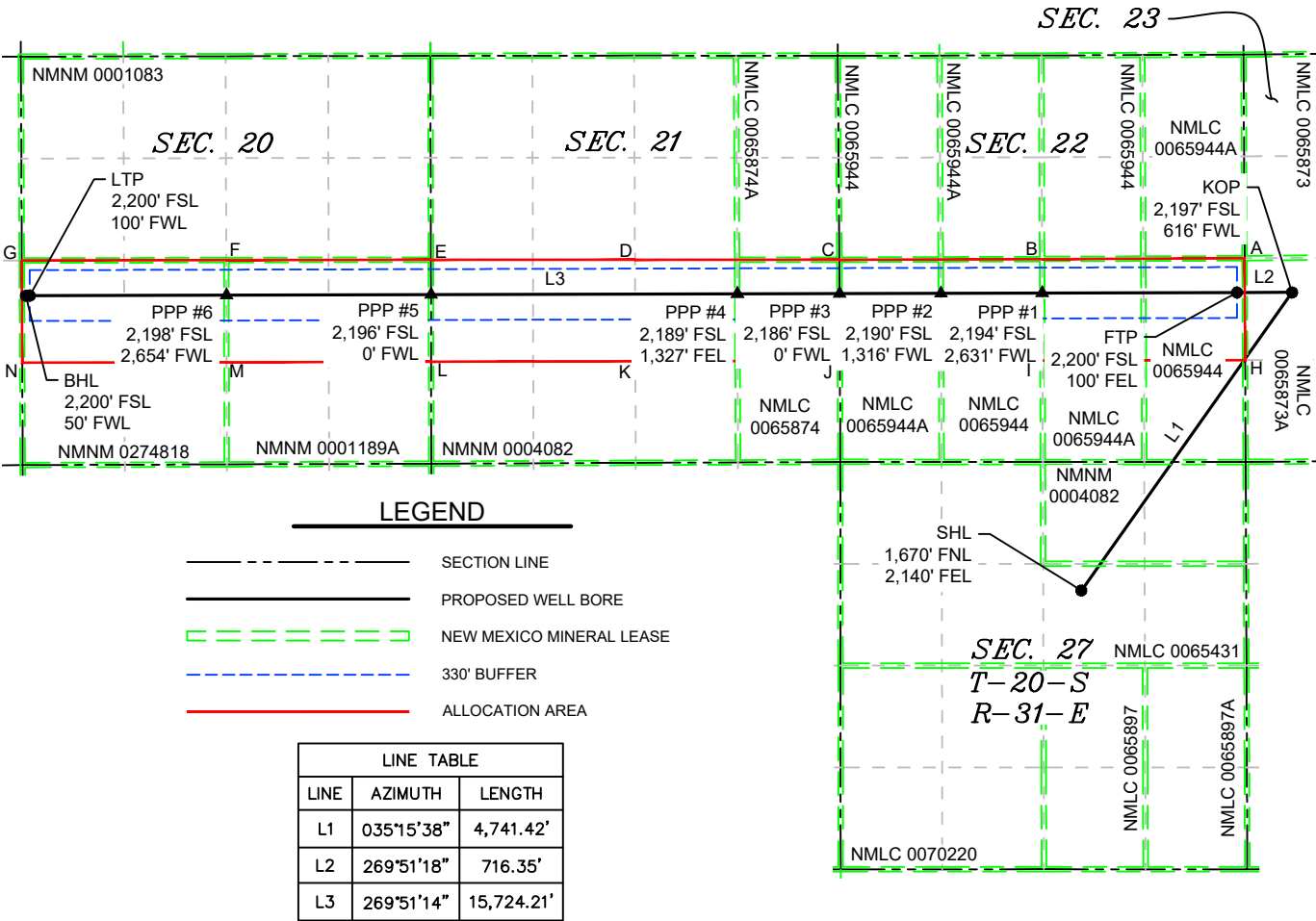
<div>OPERATOR CERTIFICATIONS</div> <div><p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the 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.</i></p><p><i>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.</i></p><div><div>Srinivas Naveen</div><div>1/6/25</div></div><div>SignatureDate</div><div>Srinivas Naveen Laghuvarapu</div><div>Printed Name</div><div>srinivas.n.laghuvarapu@exxonmobil.com</div><div>Email Address</div></div>	<div>SURVEYOR CERTIFICATIONS</div> <div><p><i>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</i></p><div><div></div><div>Signature and Seal of Professional Surveyor</div></div><div><div>MARK DILLON HARP 23786</div><div>1/3/2025</div></div><div>Certificate NumberDate of Survey</div><div>KT618.013004.04-01</div></div>
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Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

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

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



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 =	563,040.1 N	Y =	566,911.6 N	Y =	566,909.8 N	Y =	566,903.4 N	Y =	566,900.0 N
X =	688,610.0 E	X =	691,347.2 E	X =	690,630.8 E	X =	688,101.7 E	X =	686,786.0 E
LAT. =	32.546946 °N	LAT. =	32.557553 °N	LAT. =	32.557557 °N	LAT. =	32.557571 °N	LAT. =	32.557578 °N
LONG. =	103.855386 °W	LONG. =	103.846446 °W	LONG. =	103.848771 °W	LONG. =	103.856979 °W	LONG. =	103.861250 °W
PPP #3 (NAD 83 NME)		PPP #4 (NAD 83 NME)		PPP #5 (NAD 83 NME)		PPP #6 (NAD 83 NME)		LTP (NAD 83 NME)	
Y =	566,896.7 N	Y =	566,893.3 N	Y =	566,883.2 N	Y =	566,876.4 N	Y =	566,869.9 N
X =	685,470.3 E	X =	684,143.2 E	X =	680,166.0 E	X =	677,510.2 E	X =	674,956.7 E
LAT. =	32.557585 °N	LAT. =	32.557591 °N	LAT. =	32.557610 °N	LAT. =	32.557622 °N	LAT. =	32.557633 °N
LONG. =	103.865520 °W	LONG. =	103.869827 °W	LONG. =	103.882736 °W	LONG. =	103.891356 °W	LONG. =	103.899644 °W
BHL (NAD 83 NME)									
Y =	566,869.7 N								
X =	674,906.7 E								
LAT. =	32.557634 °N								
LONG. =	103.899806 °W								
SHL (NAD 27 NME)		KOP (NAD 27 NME)		FTP (NAD 27 NME)		PPP #1 (NAD 27 NME)		PPP #2 (NAD 27 NME)	
Y =	562,978.4 N	Y =	566,849.9 N	Y =	566,848.1 N	Y =	566,841.6 N	Y =	566,838.3 N
X =	647,430.4 E	X =	650,167.7 E	X =	649,451.4 E	X =	646,922.2 E	X =	645,606.5 E
LAT. =	32.546825 °N	LAT. =	32.557433 °N	LAT. =	32.557437 °N	LAT. =	32.557451 °N	LAT. =	32.557458 °N
LONG. =	103.854884 °W	LONG. =	103.845944 °W	LONG. =	103.848269 °W	LONG. =	103.856477 °W	LONG. =	103.860748 °W
PPP #3 (NAD 27 NME)		PPP #4 (NAD 27 NME)		PPP #5 (NAD 27 NME)		PPP #6 (NAD 27 NME)		LTP (NAD 27 NME)	
Y =	566,834.9 N	Y =	566,831.5 N	Y =	566,821.3 N	Y =	566,814.6 N	Y =	566,808.0 N
X =	644,290.8 E	X =	642,963.8 E	X =	638,986.5 E	X =	636,330.7 E	X =	633,777.2 E
LAT. =	32.557464 °N	LAT. =	32.557471 °N	LAT. =	32.557490 °N	LAT. =	32.557502 °N	LAT. =	32.557513 °N
LONG. =	103.865018 °W	LONG. =	103.869325 °W	LONG. =	103.882233 °W	LONG. =	103.890853 °W	LONG. =	103.899141 °W
BHL (NAD 27 NME)									
Y =	566,807.9 N								
X =	633,727.2 E								
LAT. =	32.557513 °N								
LONG. =	103.899303 °W								
CORNER COORDINATES (NAD 83 NME)					CORNER COORDINATES (NAD 27 NME)				
A - Y =	567,354.5 N	A - X =	690,728.4 E		A - Y =	567,292.7 N	A - X =	649,549.0 E	
B - Y =	567,344.9 N	B - X =	688,099.9 E		B - Y =	567,283.2 N	B - X =	646,920.5 E	
C - Y =	567,335.4 N	C - X =	685,468.1 E		C - Y =	567,273.6 N	C - X =	644,288.7 E	
D - Y =	567,336.2 N	D - X =	682,814.3 E		D - Y =	567,274.4 N	D - X =	641,634.9 E	
E - Y =	567,336.9 N	E - X =	680,165.0 E		E - Y =	567,275.1 N	E - X =	638,985.5 E	
F - Y =	567,331.3 N	F - X =	677,508.9 E		F - Y =	567,269.5 N	F - X =	636,329.4 E	
G - Y =	567,325.7 N	G - X =	674,854.6 E		G - Y =	567,263.9 N	G - X =	633,675.2 E	
H - Y =	566,032.2 N	H - X =	690,735.6 E		H - Y =	565,970.4 N	H - X =	649,556.1 E	
I - Y =	566,027.3 N	I - X =	688,105.1 E		I - Y =	565,965.6 N	I - X =	646,925.7 E	
J - Y =	566,022.8 N	J - X =	685,474.6 E		J - Y =	565,961.1 N	J - X =	644,295.1 E	
K - Y =	566,017.4 N	K - X =	682,819.6 E		K - Y =	565,955.7 N	K - X =	641,640.2 E	
L - Y =	566,012.1 N	L - X =	680,167.9 E		L - Y =	565,950.3 N	L - X =	638,988.4 E	
M - Y =	566,005.0 N	M - X =	677,512.7 E		M - Y =	565,943.2 N	M - X =	636,333.1 E	
N - Y =	565,997.6 N	N - X =	674,860.5 E		N - Y =	565,935.8 N	N - X =	633,681.0 E	

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

XTO Energy Inc.
BIG EDDY UNIT DI 5 WEST 27-20 1H
Projected TD: 28113.7' MD / 9659' TVD
SHL: 1670' FNL & 2140' FEL , Section 27, T20S, R31E
BHL: 2200' FSL & 50' FWL , Section 20, 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	674'	Water
Top of Salt	950'	Water
Base of Salt	2202'	Water
Capitan	2862'	Water
Delaware	3937'	Water
Brushy Canyon	5894'	Water/Oil/Gas
Bone Spring	7470'	Water
Avalon	7665'	Water/Oil/Gas
1st Bone Spring	8403'	Water/Oil/Gas
2nd Bone Spring	9105'	Water/Oil/Gas
Target/Land Curve	9659'	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 @ 850' (100' above the salt) and circulating cement back to surface. The salt will be isolated by setting first intermediate casing at 2302' and circulating cement to surface. The second intermediate will isolate Capitan Reef to ~50' inside Delaware formation and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 28113.7 MD/TD and 5.5 inch production casing will be set at TD and cemented to a estimated TOC 7470 feet

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 850'	13.375	54.5	J-55	BTC	New	3.97	3.04	19.62
12.25	0' – 2302'	9.625	40	J-55	BTC	New	4.17	3.93	6.84
8.75	0' – 2402'	7.625	29.7	HC L-80	Flush Joint	New	2.18	5.05	3.43
8.75	2402' – 3987'	7.625	29.7	HC L-80	Flush Joint	New	2.18	8.53	9.21
6.75	0' – 3887'	5.5	20	RY P-110	Semi-Premium / Freedom	New	1.05	5.23	1.79
6.75	3887' - 28113.7'	5.5	20	RY P-110	Semi-Flush / Talon	New	1.05	2.10	2.29

· 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 attachment.

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 +/- 850'

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 +/- 2302'

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 +/- 3987'

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: @ 2862

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 (2862') 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 +/- 28113.7'

Lead: 130 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 7470 feet

Tail: 1070 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 11264.41 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 @ 11,264' 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	Viscosity	Fluid Loss	Additional Comments.
			(ppg)	(sec/qt)	(cc)	
0' - 850'	17.5	FW/Native	8.4-8.9	35-40	NC	Fresh water or native water
850' - 2302'	12.25	Sat Brine	10-10.5	30-32	NC	Fully saturated brine across salado / salt
2302' to 3987'	8.75	FW	8.8-9.3	30-32	NC	FW across Cap Reef
3987' to 28113.7'	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 5274 psi.

10. Anticipated Starting Date and Duration of Operations

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



U. S. Steel Tubular Products

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

11/8/2023 1:08:50 PM



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

UNCONTROLLED

Notes

1.

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

Uniaxial bending rating shown is structural only, and equal to compression efficiency.
3.

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

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

Legal Notice

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www.usstubular.com



U. S. Steel Tubular Products

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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]

UNCONTROLLED

Notes

- 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).
- Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- Uniaxial bend rating shown is structural only.
- 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.).
- Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

Legal Notice

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Well Plan Report

Measured Depth: 28113.70 ft

TVD RKB: 9659.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 562978.40 ft

Easting: 647430.40 ft

RKB: 3556.00 ft

Ground Level: 3524.00 ft

North Reference: Grid

Convergence Angle: 0.26 Deg

Plan Sections

Measured			TVD			Build	Turn	Dogleg	
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate	Target
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)	
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	
5911.30	72.23	35.26	5028.05	1625.13	1148.98	2.00	0.00	2.00	
6710.30	72.23	35.26	5271.95	2246.40	1588.22	0.00	0.00	0.00	
10321.61	0.00	0.00	8000.00	3871.54	2737.19	-2.00	0.00	2.00	
11264.41	0.00	0.00	8942.80	3871.54	2737.19	0.00	0.00	0.00	
12389.41	90.00	269.85	9659.00	3869.70	2021.00	8.00	0.00	8.00	FTP 1
28063.69	90.00	269.85	9659.00	3829.49	-13653.23	0.00	0.00	0.00	LTP 1
28113.70	90.00	269.85	9659.00	3829.36	-13703.24	0.00	0.00	0.00	BHL 1

Position Uncertainty

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	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	2.638	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	35.260	2399.980	8.538	0.000	8.482	0.000	3.560	0.000	0.000	8.602	8.422	90.039	XOMR2_OWSG MWD+IFR1+MS
2500.000	4.000	35.260	2499.838	8.879	0.000	8.836	0.000	3.641	0.000	0.000	8.958	8.776	90.186	XOMR2_OWSG MWD+IFR1+MS
2600.000	6.000	35.260	2599.452	9.211	0.000	9.190	0.000	3.722	0.000	0.000	9.313	9.129	90.324	XOMR2_OWSG MWD+IFR1+MS
2700.000	8.000	35.260	2698.702	9.532	0.000	9.543	0.000	3.803	0.000	0.000	9.669	9.481	90.396	XOMR2_OWSG MWD+IFR1+MS
2800.000	10.000	35.260	2797.465	9.843	0.000	9.895	0.000	3.885	0.000	0.000	10.023	9.832	90.349	XOMR2_OWSG MWD+IFR1+MS
2900.000	12.000	35.260	2895.623	10.143	0.000	10.247	0.000	3.967	0.000	0.000	10.378	10.182	90.137	XOMR2_OWSG MWD+IFR1+MS
3000.000	14.000	35.260	2993.055	10.434	0.000	10.599	0.000	4.051	0.000	0.000	10.732	10.531	89.719	XOMR2_OWSG MWD+IFR1+MS
3100.000	16.000	35.260	3089.643	10.714	0.000	10.952	0.000	4.138	0.000	0.000	11.085	10.880	89.051	XOMR2_OWSG MWD+IFR1+MS
3200.000	18.000	35.260	3185.268	10.986	0.000	11.306	0.000	4.228	0.000	0.000	11.439	11.229	88.090	XOMR2_OWSG MWD+IFR1+MS
3300.000	20.000	35.260	3279.816	11.248	0.000	11.661	0.000	4.323	0.000	0.000	11.793	11.578	86.786	XOMR2_OWSG MWD+IFR1+MS
3400.000	22.000	35.260	3373.169	11.501	0.000	12.020	0.000	4.424	0.000	0.000	12.148	11.927	85.091	XOMR2_OWSG MWD+IFR1+MS
3500.000	24.000	35.260	3465.215	11.747	0.000	12.381	0.000	4.533	0.000	0.000	12.504	12.278	82.956	XOMR2_OWSG MWD+IFR1+MS
3600.000	26.000	35.260	3555.841	11.986	0.000	12.746	0.000	4.651	0.000	0.000	12.863	12.628	80.347	XOMR2_OWSG MWD+IFR1+MS
3700.000	28.000	35.260	3644.937	12.219	0.000	13.115	0.000	4.780	0.000	0.000	13.224	12.979	77.264	XOMR2_OWSG MWD+IFR1+MS
3800.000	30.000	35.260	3732.394	12.446	0.000	13.490	0.000	4.923	0.000	0.000	13.590	13.330	73.758	XOMR2_OWSG MWD+IFR1+MS

3900.000	32.000	35.260	3818.107	12.668	0.000	13.871	0.000	5.080	0.000	0.000	13.962	13.681	69.955	XOMR2_OWSG MWD+IFR1+MS
4000.000	34.000	35.260	3901.970	12.886	0.000	14.259	0.000	5.254	0.000	0.000	14.340	14.029	66.039	XOMR2_OWSG MWD+IFR1+MS
4100.000	36.000	35.260	3983.881	13.100	0.000	14.655	0.000	5.447	0.000	0.000	14.727	14.375	62.216	XOMR2_OWSG MWD+IFR1+MS
4200.000	38.000	35.260	4063.740	13.313	0.000	15.059	0.000	5.661	0.000	0.000	15.123	14.717	58.659	XOMR2_OWSG MWD+IFR1+MS
4300.000	40.000	35.260	4141.451	13.523	0.000	15.473	0.000	5.897	0.000	0.000	15.529	15.056	55.477	XOMR2_OWSG MWD+IFR1+MS
4400.000	42.000	35.260	4216.918	13.733	0.000	15.897	0.000	6.157	0.000	0.000	15.946	15.390	52.710	XOMR2_OWSG MWD+IFR1+MS
4500.000	44.000	35.260	4290.050	13.943	0.000	16.331	0.000	6.442	0.000	0.000	16.375	15.718	50.347	XOMR2_OWSG MWD+IFR1+MS
4600.000	46.000	35.260	4360.757	14.153	0.000	16.777	0.000	6.753	0.000	0.000	16.816	16.041	48.347	XOMR2_OWSG MWD+IFR1+MS
4700.000	48.000	35.260	4428.953	14.364	0.000	17.234	0.000	7.091	0.000	0.000	17.269	16.357	46.663	XOMR2_OWSG MWD+IFR1+MS
4800.000	50.000	35.260	4494.556	14.577	0.000	17.704	0.000	7.456	0.000	0.000	17.735	16.666	45.245	XOMR2_OWSG MWD+IFR1+MS
4900.000	52.000	35.260	4557.485	14.792	0.000	18.186	0.000	7.848	0.000	0.000	18.214	16.967	44.046	XOMR2_OWSG MWD+IFR1+MS
5000.000	54.000	35.260	4617.663	15.010	0.000	18.681	0.000	8.268	0.000	0.000	18.707	17.259	43.030	XOMR2_OWSG MWD+IFR1+MS
5100.000	56.000	35.260	4675.018	15.230	0.000	19.190	0.000	8.714	0.000	0.000	19.213	17.542	42.165	XOMR2_OWSG MWD+IFR1+MS
5200.000	58.000	35.260	4729.479	15.454	0.000	19.711	0.000	9.186	0.000	0.000	19.732	17.814	41.424	XOMR2_OWSG MWD+IFR1+MS
5300.000	60.000	35.260	4780.980	15.681	0.000	20.246	0.000	9.684	0.000	0.000	20.265	18.074	40.786	XOMR2_OWSG MWD+IFR1+MS
5400.000	62.000	35.260	4829.459	15.911	0.000	20.794	0.000	10.207	0.000	0.000	20.812	18.323	40.234	XOMR2_OWSG MWD+IFR1+MS
5500.000	64.000	35.260	4874.855	16.145	0.000	21.355	0.000	10.753	0.000	0.000	21.371	18.559	39.754	XOMR2_OWSG MWD+IFR1+MS
5600.000	66.000	35.260	4917.115	16.382	0.000	21.928	0.000	11.322	0.000	0.000	21.943	18.781	39.334	XOMR2_OWSG MWD+IFR1+MS
5700.000	68.000	35.260	4956.186	16.622	0.000	22.514	0.000	11.911	0.000	0.000	22.528	18.988	38.966	XOMR2_OWSG MWD+IFR1+MS
5800.000	70.000	35.260	4992.021	16.864	0.000	23.111	0.000	12.521	0.000	0.000	23.124	19.180	38.642	XOMR2_OWSG MWD+IFR1+MS

5900.000	72.000	35.260	5024.576	17.109	0.000	23.720	0.000	13.148	0.000	0.000	23.731	19.357	38.355	XOMR2_OWSG MWD+IFR1+MS
5911.303	72.226	35.260	5028.048	17.137	0.000	23.789	0.000	13.219	0.000	0.000	23.800	19.378	38.326	XOMR2_OWSG MWD+IFR1+MS
6000.000	72.226	35.260	5055.124	17.718	0.000	24.338	0.000	13.791	0.000	0.000	24.349	19.524	38.106	XOMR2_OWSG MWD+IFR1+MS
6100.000	72.226	35.260	5085.650	18.380	0.000	24.970	0.000	14.444	0.000	0.000	24.980	19.691	37.891	XOMR2_OWSG MWD+IFR1+MS
6200.000	72.226	35.260	5116.176	19.050	0.000	25.612	0.000	15.102	0.000	0.000	25.622	19.860	37.706	XOMR2_OWSG MWD+IFR1+MS
6300.000	72.226	35.260	5146.702	19.725	0.000	26.265	0.000	15.767	0.000	0.000	26.273	20.031	37.546	XOMR2_OWSG MWD+IFR1+MS
6400.000	72.226	35.260	5177.228	20.407	0.000	26.926	0.000	16.436	0.000	0.000	26.935	20.203	37.406	XOMR2_OWSG MWD+IFR1+MS
6500.000	72.226	35.260	5207.755	21.093	0.000	27.597	0.000	17.109	0.000	0.000	27.605	20.378	37.282	XOMR2_OWSG MWD+IFR1+MS
6600.000	72.226	35.260	5238.281	21.784	0.000	28.275	0.000	17.786	0.000	0.000	28.283	20.554	37.171	XOMR2_OWSG MWD+IFR1+MS
6700.000	72.226	35.260	5268.807	22.479	0.000	28.961	0.000	18.466	0.000	0.000	28.968	20.732	37.073	XOMR2_OWSG MWD+IFR1+MS
6710.303	72.226	35.260	5271.952	22.551	0.000	29.032	0.000	18.537	0.000	0.000	29.039	20.750	37.064	XOMR2_OWSG MWD+IFR1+MS
6800.000	70.432	35.260	5300.666	23.507	0.000	29.653	0.000	19.147	0.000	0.000	29.659	20.918	36.987	XOMR2_OWSG MWD+IFR1+MS
6900.000	68.432	35.260	5335.796	24.550	0.000	30.350	0.000	19.820	0.000	0.000	30.356	21.123	36.913	XOMR2_OWSG MWD+IFR1+MS
7000.000	66.432	35.260	5374.171	25.565	0.000	31.049	0.000	20.483	0.000	0.000	31.055	21.349	36.851	XOMR2_OWSG MWD+IFR1+MS
7100.000	64.432	35.260	5415.746	26.550	0.000	31.748	0.000	21.133	0.000	0.000	31.754	21.595	36.799	XOMR2_OWSG MWD+IFR1+MS
7200.000	62.432	35.260	5460.470	27.503	0.000	32.446	0.000	21.768	0.000	0.000	32.452	21.860	36.755	XOMR2_OWSG MWD+IFR1+MS
7300.000	60.432	35.260	5508.287	28.422	0.000	33.140	0.000	22.386	0.000	0.000	33.146	22.146	36.718	XOMR2_OWSG MWD+IFR1+MS
7400.000	58.432	35.260	5559.141	29.303	0.000	33.828	0.000	22.987	0.000	0.000	33.834	22.450	36.688	XOMR2_OWSG MWD+IFR1+MS
7500.000	56.432	35.260	5612.968	30.147	0.000	34.510	0.000	23.569	0.000	0.000	34.516	22.772	36.663	XOMR2_OWSG MWD+IFR1+MS
7600.000	54.432	35.260	5669.703	30.950	0.000	35.184	0.000	24.131	0.000	0.000	35.190	23.112	36.643	XOMR2_OWSG MWD+IFR1+MS

7700.000	52.432	35.260	5729.277	31.711	0.000	35.848	0.000	24.671	0.000	0.000	35.854	23.468	36.628	XOMR2_OWSG MWD+IFR1+MS
7800.000	50.432	35.260	5791.618	32.428	0.000	36.501	0.000	25.190	0.000	0.000	36.507	23.839	36.616	XOMR2_OWSG MWD+IFR1+MS
7900.000	48.432	35.260	5856.650	33.099	0.000	37.142	0.000	25.685	0.000	0.000	37.148	24.224	36.608	XOMR2_OWSG MWD+IFR1+MS
8000.000	46.432	35.260	5924.293	33.724	0.000	37.769	0.000	26.158	0.000	0.000	37.775	24.621	36.604	XOMR2_OWSG MWD+IFR1+MS
8100.000	44.432	35.260	5994.465	34.301	0.000	38.383	0.000	26.606	0.000	0.000	38.389	25.029	36.602	XOMR2_OWSG MWD+IFR1+MS
8200.000	42.432	35.260	6067.080	34.829	0.000	38.981	0.000	27.031	0.000	0.000	38.987	25.447	36.602	XOMR2_OWSG MWD+IFR1+MS
8300.000	40.432	35.260	6142.050	35.306	0.000	39.564	0.000	27.432	0.000	0.000	39.570	25.873	36.606	XOMR2_OWSG MWD+IFR1+MS
8400.000	38.432	35.260	6219.284	35.732	0.000	40.130	0.000	27.808	0.000	0.000	40.136	26.305	36.611	XOMR2_OWSG MWD+IFR1+MS
8500.000	36.432	35.260	6298.687	36.106	0.000	40.679	0.000	28.161	0.000	0.000	40.685	26.741	36.617	XOMR2_OWSG MWD+IFR1+MS
8600.000	34.432	35.260	6380.163	36.427	0.000	41.210	0.000	28.490	0.000	0.000	41.217	27.180	36.626	XOMR2_OWSG MWD+IFR1+MS
8700.000	32.432	35.260	6463.613	36.695	0.000	41.724	0.000	28.796	0.000	0.000	41.731	27.621	36.636	XOMR2_OWSG MWD+IFR1+MS
8800.000	30.432	35.260	6548.935	36.908	0.000	42.219	0.000	29.078	0.000	0.000	42.226	28.060	36.647	XOMR2_OWSG MWD+IFR1+MS
8900.000	28.432	35.260	6636.024	37.067	0.000	42.695	0.000	29.339	0.000	0.000	42.702	28.498	36.659	XOMR2_OWSG MWD+IFR1+MS
9000.000	26.432	35.260	6724.775	37.172	0.000	43.153	0.000	29.579	0.000	0.000	43.160	28.932	36.672	XOMR2_OWSG MWD+IFR1+MS
9100.000	24.432	35.260	6815.080	37.223	0.000	43.591	0.000	29.798	0.000	0.000	43.598	29.360	36.685	XOMR2_OWSG MWD+IFR1+MS
9200.000	22.432	35.260	6906.829	37.219	0.000	44.010	0.000	29.997	0.000	0.000	44.018	29.782	36.700	XOMR2_OWSG MWD+IFR1+MS
9300.000	20.432	35.260	6999.909	37.161	0.000	44.410	0.000	30.178	0.000	0.000	44.418	30.195	36.714	XOMR2_OWSG MWD+IFR1+MS
9400.000	18.432	35.260	7094.208	37.049	0.000	44.791	0.000	30.342	0.000	0.000	44.799	30.599	36.728	XOMR2_OWSG MWD+IFR1+MS
9500.000	16.432	35.260	7189.610	36.885	0.000	45.153	0.000	30.490	0.000	0.000	45.161	30.992	36.743	XOMR2_OWSG MWD+IFR1+MS
9600.000	14.432	35.260	7286.000	36.668	0.000	45.496	0.000	30.623	0.000	0.000	45.504	31.373	36.757	XOMR2_OWSG MWD+IFR1+MS

9700.000	12.432	35.260	7383.260	36.400	0.000	45.820	0.000	30.743	0.000	0.000	45.829	31.740	36.771	XOMR2_OWSG MWD+IFR1+MS
9800.000	10.432	35.260	7481.271	36.083	0.000	46.126	0.000	30.851	0.000	0.000	46.134	32.093	36.784	XOMR2_OWSG MWD+IFR1+MS
9900.000	8.432	35.260	7579.914	35.717	0.000	46.413	0.000	30.949	0.000	0.000	46.422	32.431	36.797	XOMR2_OWSG MWD+IFR1+MS
10000.000	6.432	35.260	7679.068	35.304	0.000	46.682	0.000	31.037	0.000	0.000	46.691	32.754	36.809	XOMR2_OWSG MWD+IFR1+MS
10100.000	4.432	35.260	7778.614	34.847	0.000	46.934	0.000	31.119	0.000	0.000	46.943	33.059	36.820	XOMR2_OWSG MWD+IFR1+MS
10200.000	2.432	35.260	7878.430	34.348	0.000	47.168	0.000	31.195	0.000	0.000	47.177	33.348	36.831	XOMR2_OWSG MWD+IFR1+MS
10300.000	0.432	35.260	7978.394	33.810	0.000	47.385	0.000	31.267	0.000	0.000	47.394	33.619	36.840	XOMR2_OWSG MWD+IFR1+MS
10321.607	0.000	0.000	8000.000	39.185	0.000	43.001	0.000	31.283	0.000	0.000	47.439	33.676	36.843	XOMR2_OWSG MWD+IFR1+MS
10400.000	0.000	0.000	8078.393	39.371	0.000	43.170	0.000	31.338	0.000	0.000	47.603	33.878	36.857	XOMR2_OWSG MWD+IFR1+MS
10500.000	0.000	0.000	8178.393	39.610	0.000	43.388	0.000	31.412	0.000	0.000	47.813	34.138	36.875	XOMR2_OWSG MWD+IFR1+MS
10600.000	0.000	0.000	8278.393	39.851	0.000	43.608	0.000	31.487	0.000	0.000	48.026	34.400	36.893	XOMR2_OWSG MWD+IFR1+MS
10700.000	0.000	0.000	8378.393	40.094	0.000	43.830	0.000	31.565	0.000	0.000	48.240	34.663	36.911	XOMR2_OWSG MWD+IFR1+MS
10800.000	0.000	0.000	8478.393	40.338	0.000	44.054	0.000	31.646	0.000	0.000	48.455	34.928	36.929	XOMR2_OWSG MWD+IFR1+MS
10900.000	0.000	0.000	8578.393	40.584	0.000	44.279	0.000	31.730	0.000	0.000	48.673	35.195	36.947	XOMR2_OWSG MWD+IFR1+MS
11000.000	0.000	0.000	8678.393	40.832	0.000	44.507	0.000	31.816	0.000	0.000	48.892	35.463	36.964	XOMR2_OWSG MWD+IFR1+MS
11100.000	0.000	0.000	8778.393	41.081	0.000	44.735	0.000	31.904	0.000	0.000	49.113	35.733	36.982	XOMR2_OWSG MWD+IFR1+MS
11200.000	0.000	0.000	8878.393	41.332	0.000	44.966	0.000	31.996	0.000	0.000	49.335	36.005	37.000	XOMR2_OWSG MWD+IFR1+MS
11264.409	0.000	0.000	8942.803	41.495	0.000	45.115	0.000	32.056	0.000	0.000	49.479	36.181	37.011	XOMR2_OWSG MWD+IFR1+MS
11300.000	2.847	269.853	8978.379	44.633	-0.000	41.614	0.000	32.090	0.000	0.000	49.557	36.272	37.016	XOMR2_OWSG MWD+IFR1+MS
11400.000	10.847	269.853	9077.585	43.059	-0.000	41.829	0.000	32.191	0.000	0.000	49.757	36.493	37.040	XOMR2_OWSG MWD+IFR1+MS

11500.000	18.847	269.853	9174.168	41.123	-0.000	42.018	0.000	32.315	0.000	0.000	49.932	36.673	37.099	XOMR2_OWSG MWD+IFR1+MS
11600.000	26.847	269.853	9266.247	38.971	-0.000	42.188	0.000	32.485	0.000	0.000	50.083	36.813	37.213	XOMR2_OWSG MWD+IFR1+MS
11700.000	34.847	269.853	9352.031	36.787	-0.000	42.342	0.000	32.718	0.000	0.000	50.211	36.918	37.390	XOMR2_OWSG MWD+IFR1+MS
11800.000	42.847	269.853	9429.850	34.790	-0.000	42.487	0.000	33.026	0.000	0.000	50.319	36.994	37.629	XOMR2_OWSG MWD+IFR1+MS
11900.000	50.847	269.853	9498.189	33.222	-0.000	42.626	0.000	33.416	0.000	0.000	50.407	37.053	37.922	XOMR2_OWSG MWD+IFR1+MS
12000.000	58.847	269.853	9555.718	32.310	-0.000	42.761	0.000	33.889	0.000	0.000	50.476	37.104	38.250	XOMR2_OWSG MWD+IFR1+MS
12100.000	66.847	269.853	9601.317	32.213	-0.000	42.892	0.000	34.438	0.000	0.000	50.525	37.158	38.594	XOMR2_OWSG MWD+IFR1+MS
12200.000	74.847	269.853	9634.100	32.968	-0.000	43.019	0.000	35.051	0.000	0.000	50.555	37.227	38.926	XOMR2_OWSG MWD+IFR1+MS
12300.000	82.847	269.853	9653.426	34.481	-0.000	43.138	0.000	35.710	0.000	0.000	50.566	37.317	39.215	XOMR2_OWSG MWD+IFR1+MS
12389.409	90.000	269.853	9659.000	36.321	0.000	43.233	0.000	36.321	0.000	0.000	50.558	37.421	39.409	XOMR2_OWSG MWD+IFR1+MS
12400.000	90.000	269.853	9659.000	36.394	0.000	43.243	0.000	36.394	0.000	0.000	50.557	37.434	39.426	XOMR2_OWSG MWD+IFR1+MS
12500.000	90.000	269.853	9659.000	37.086	0.000	43.359	0.000	37.086	0.000	0.000	50.545	37.575	39.644	XOMR2_OWSG MWD+IFR1+MS
12600.000	90.000	269.853	9659.000	37.781	0.000	43.504	0.000	37.781	0.000	0.000	50.545	37.734	39.928	XOMR2_OWSG MWD+IFR1+MS
12700.000	90.000	269.853	9659.000	38.480	0.000	43.677	0.000	38.480	0.000	0.000	50.556	37.911	40.280	XOMR2_OWSG MWD+IFR1+MS
12800.000	90.000	269.853	9659.000	39.182	0.000	43.879	0.000	39.182	0.000	0.000	50.579	38.106	40.704	XOMR2_OWSG MWD+IFR1+MS
12900.000	90.000	269.853	9659.000	39.887	0.000	44.108	0.000	39.887	0.000	0.000	50.614	38.317	41.202	XOMR2_OWSG MWD+IFR1+MS
13000.000	90.000	269.853	9659.000	40.595	0.000	44.364	0.000	40.595	0.000	0.000	50.662	38.543	41.777	XOMR2_OWSG MWD+IFR1+MS
13100.000	90.000	269.853	9659.000	41.306	0.000	44.647	0.000	41.306	0.000	0.000	50.724	38.782	42.431	XOMR2_OWSG MWD+IFR1+MS
13200.000	90.000	269.853	9659.000	42.020	0.000	44.956	0.000	42.020	0.000	0.000	50.800	39.034	43.166	XOMR2_OWSG MWD+IFR1+MS
13300.000	90.000	269.853	9659.000	42.735	0.000	45.291	0.000	42.735	0.000	0.000	50.892	39.296	43.986	XOMR2_OWSG MWD+IFR1+MS

13400.000	90.000	269.853	9659.000	43.454	0.000	45.651	0.000	43.454	0.000	0.000	51.001	39.568	44.892	XOMR2_OWSG MWD+IFR1+MS
13500.000	90.000	269.853	9659.000	44.174	0.000	46.036	0.000	44.174	0.000	0.000	51.127	39.846	45.884	XOMR2_OWSG MWD+IFR1+MS
13600.000	90.000	269.853	9659.000	44.897	0.000	46.445	0.000	44.897	0.000	0.000	51.273	40.130	46.962	XOMR2_OWSG MWD+IFR1+MS
13700.000	90.000	269.853	9659.000	45.622	0.000	46.877	0.000	45.622	0.000	0.000	51.439	40.417	48.125	XOMR2_OWSG MWD+IFR1+MS
13800.000	90.000	269.853	9659.000	46.349	0.000	47.332	0.000	46.349	0.000	0.000	51.628	40.704	49.369	XOMR2_OWSG MWD+IFR1+MS
13900.000	90.000	269.853	9659.000	47.077	0.000	47.809	0.000	47.077	0.000	0.000	51.839	40.991	50.690	XOMR2_OWSG MWD+IFR1+MS
14000.000	90.000	269.853	9659.000	47.808	0.000	48.307	0.000	47.808	0.000	0.000	52.075	41.274	52.080	XOMR2_OWSG MWD+IFR1+MS
14100.000	90.000	269.853	9659.000	48.540	0.000	48.826	0.000	48.540	0.000	0.000	52.338	41.552	53.531	XOMR2_OWSG MWD+IFR1+MS
14200.000	90.000	269.853	9659.000	49.274	0.000	49.365	0.000	49.274	0.000	0.000	52.627	41.824	55.031	XOMR2_OWSG MWD+IFR1+MS
14300.000	90.000	269.853	9659.000	50.009	0.000	49.923	0.000	50.009	0.000	0.000	52.945	42.086	56.567	XOMR2_OWSG MWD+IFR1+MS
14400.000	90.000	269.853	9659.000	50.746	0.000	50.500	0.000	50.746	0.000	0.000	53.291	42.338	58.126	XOMR2_OWSG MWD+IFR1+MS
14500.000	90.000	269.853	9659.000	51.484	0.000	51.096	0.000	51.484	0.000	0.000	53.667	42.580	59.694	XOMR2_OWSG MWD+IFR1+MS
14600.000	90.000	269.853	9659.000	52.224	0.000	51.709	0.000	52.224	0.000	0.000	54.073	42.808	61.254	XOMR2_OWSG MWD+IFR1+MS
14700.000	90.000	269.853	9659.000	52.964	0.000	52.339	0.000	52.964	0.000	0.000	54.508	43.025	62.795	XOMR2_OWSG MWD+IFR1+MS
14800.000	90.000	269.853	9659.000	53.706	0.000	52.985	0.000	53.706	0.000	0.000	54.972	43.228	64.302	XOMR2_OWSG MWD+IFR1+MS
14900.000	90.000	269.853	9659.000	54.450	0.000	53.647	0.000	54.450	0.000	0.000	55.465	43.418	65.766	XOMR2_OWSG MWD+IFR1+MS
15000.000	90.000	269.853	9659.000	55.194	0.000	54.324	0.000	55.194	0.000	0.000	55.986	43.595	67.177	XOMR2_OWSG MWD+IFR1+MS
15100.000	90.000	269.853	9659.000	55.940	0.000	55.015	0.000	55.940	0.000	0.000	56.534	43.760	68.528	XOMR2_OWSG MWD+IFR1+MS
15200.000	90.000	269.853	9659.000	56.686	0.000	55.721	0.000	56.686	0.000	0.000	57.108	43.913	69.815	XOMR2_OWSG MWD+IFR1+MS
15300.000	90.000	269.853	9659.000	57.434	0.000	56.440	0.000	57.434	0.000	0.000	57.706	44.055	71.035	XOMR2_OWSG MWD+IFR1+MS

15400.000	90.000	269.853	9659.000	58.183	0.000	57.172	0.000	58.183	0.000	0.000	58.328	44.186	72.186	XOMR2_OWSG MWD+IFR1+MS
15500.000	90.000	269.853	9659.000	58.932	0.000	57.917	0.000	58.932	0.000	0.000	58.973	44.308	73.269	XOMR2_OWSG MWD+IFR1+MS
15600.000	90.000	269.853	9659.000	59.683	0.000	58.674	0.000	59.683	0.000	0.000	59.638	44.420	74.285	XOMR2_OWSG MWD+IFR1+MS
15700.000	90.000	269.853	9659.000	60.434	0.000	59.442	0.000	60.434	0.000	0.000	60.323	44.525	75.237	XOMR2_OWSG MWD+IFR1+MS
15800.000	90.000	269.853	9659.000	61.186	0.000	60.222	0.000	61.186	0.000	0.000	61.026	44.621	76.126	XOMR2_OWSG MWD+IFR1+MS
15900.000	90.000	269.853	9659.000	61.939	0.000	61.012	0.000	61.939	0.000	0.000	61.748	44.711	76.956	XOMR2_OWSG MWD+IFR1+MS
16000.000	90.000	269.853	9659.000	62.693	0.000	61.812	0.000	62.693	0.000	0.000	62.485	44.795	77.730	XOMR2_OWSG MWD+IFR1+MS
16100.000	90.000	269.853	9659.000	63.447	0.000	62.622	0.000	63.447	0.000	0.000	63.239	44.873	78.452	XOMR2_OWSG MWD+IFR1+MS
16200.000	90.000	269.853	9659.000	64.202	0.000	63.442	0.000	64.202	0.000	0.000	64.007	44.945	79.125	XOMR2_OWSG MWD+IFR1+MS
16300.000	90.000	269.853	9659.000	64.958	0.000	64.271	0.000	64.958	0.000	0.000	64.789	45.013	79.753	XOMR2_OWSG MWD+IFR1+MS
16400.000	90.000	269.853	9659.000	65.715	0.000	65.109	0.000	65.715	0.000	0.000	65.584	45.077	80.338	XOMR2_OWSG MWD+IFR1+MS
16500.000	90.000	269.853	9659.000	66.472	0.000	65.955	0.000	66.472	0.000	0.000	66.391	45.138	80.883	XOMR2_OWSG MWD+IFR1+MS
16600.000	90.000	269.853	9659.000	67.230	0.000	66.810	0.000	67.230	0.000	0.000	67.210	45.194	81.393	XOMR2_OWSG MWD+IFR1+MS
16700.000	90.000	269.853	9659.000	67.989	0.000	67.672	0.000	67.989	0.000	0.000	68.039	45.248	81.868	XOMR2_OWSG MWD+IFR1+MS
16800.000	90.000	269.853	9659.000	68.748	0.000	68.542	0.000	68.748	0.000	0.000	68.879	45.299	82.312	XOMR2_OWSG MWD+IFR1+MS
16900.000	90.000	269.853	9659.000	69.507	0.000	69.419	0.000	69.507	0.000	0.000	69.729	45.348	82.728	XOMR2_OWSG MWD+IFR1+MS
17000.000	90.000	269.853	9659.000	70.268	0.000	70.303	0.000	70.268	0.000	0.000	70.589	45.394	83.116	XOMR2_OWSG MWD+IFR1+MS
17100.000	90.000	269.853	9659.000	71.028	0.000	71.194	0.000	71.028	0.000	0.000	71.457	45.438	83.480	XOMR2_OWSG MWD+IFR1+MS
17200.000	90.000	269.853	9659.000	71.790	0.000	72.091	0.000	71.790	0.000	0.000	72.333	45.481	83.822	XOMR2_OWSG MWD+IFR1+MS
17300.000	90.000	269.853	9659.000	72.551	0.000	72.995	0.000	72.551	0.000	0.000	73.218	45.522	84.142	XOMR2_OWSG MWD+IFR1+MS

17400.000	90.000	269.853	9659.000	73.314	0.000	73.904	0.000	73.314	0.000	0.000	74.110	45.562	84.442	XOMR2_OWSG MWD+IFR1+MS
17500.000	90.000	269.853	9659.000	74.076	0.000	74.820	0.000	74.076	0.000	0.000	75.009	45.600	84.725	XOMR2_OWSG MWD+IFR1+MS
17600.000	90.000	269.853	9659.000	74.840	0.000	75.741	0.000	74.840	0.000	0.000	75.915	45.637	84.990	XOMR2_OWSG MWD+IFR1+MS
17700.000	90.000	269.853	9659.000	75.603	0.000	76.667	0.000	75.603	0.000	0.000	76.828	45.673	85.240	XOMR2_OWSG MWD+IFR1+MS
17800.000	90.000	269.853	9659.000	76.367	0.000	77.599	0.000	76.367	0.000	0.000	77.747	45.709	85.476	XOMR2_OWSG MWD+IFR1+MS
17900.000	90.000	269.853	9659.000	77.132	0.000	78.535	0.000	77.132	0.000	0.000	78.672	45.743	85.698	XOMR2_OWSG MWD+IFR1+MS
18000.000	90.000	269.853	9659.000	77.897	0.000	79.476	0.000	77.897	0.000	0.000	79.603	45.777	85.907	XOMR2_OWSG MWD+IFR1+MS
18100.000	90.000	269.853	9659.000	78.662	0.000	80.422	0.000	78.662	0.000	0.000	80.539	45.810	86.105	XOMR2_OWSG MWD+IFR1+MS
18200.000	90.000	269.853	9659.000	79.428	0.000	81.373	0.000	79.428	0.000	0.000	81.480	45.843	86.292	XOMR2_OWSG MWD+IFR1+MS
18300.000	90.000	269.853	9659.000	80.194	0.000	82.328	0.000	80.194	0.000	0.000	82.427	45.875	86.468	XOMR2_OWSG MWD+IFR1+MS
18400.000	90.000	269.853	9659.000	80.960	0.000	83.287	0.000	80.960	0.000	0.000	83.378	45.907	86.636	XOMR2_OWSG MWD+IFR1+MS
18500.000	90.000	269.853	9659.000	81.727	0.000	84.250	0.000	81.727	0.000	0.000	84.334	45.939	86.794	XOMR2_OWSG MWD+IFR1+MS
18600.000	90.000	269.853	9659.000	82.494	0.000	85.217	0.000	82.494	0.000	0.000	85.295	45.970	86.944	XOMR2_OWSG MWD+IFR1+MS
18700.000	90.000	269.853	9659.000	83.261	0.000	86.187	0.000	83.261	0.000	0.000	86.259	46.001	87.087	XOMR2_OWSG MWD+IFR1+MS
18800.000	90.000	269.853	9659.000	84.029	0.000	87.162	0.000	84.029	0.000	0.000	87.228	46.032	87.222	XOMR2_OWSG MWD+IFR1+MS
18900.000	90.000	269.853	9659.000	84.797	0.000	88.140	0.000	84.797	0.000	0.000	88.201	46.063	87.350	XOMR2_OWSG MWD+IFR1+MS
19000.000	90.000	269.853	9659.000	85.565	0.000	89.121	0.000	85.565	0.000	0.000	89.178	46.093	87.472	XOMR2_OWSG MWD+IFR1+MS
19100.000	90.000	269.853	9659.000	86.334	0.000	90.106	0.000	86.334	0.000	0.000	90.158	46.124	87.588	XOMR2_OWSG MWD+IFR1+MS
19200.000	90.000	269.853	9659.000	87.103	0.000	91.094	0.000	87.103	0.000	0.000	91.142	46.155	87.698	XOMR2_OWSG MWD+IFR1+MS
19300.000	90.000	269.853	9659.000	87.872	0.000	92.085	0.000	87.872	0.000	0.000	92.129	46.185	87.803	XOMR2_OWSG MWD+IFR1+MS

19400.000	90.000	269.853	9659.000	88.641	0.000	93.079	0.000	88.641	0.000	0.000	93.119	46.216	87.903	XOMR2_OWSG MWD+IFR1+MS
19500.000	90.000	269.853	9659.000	89.411	0.000	94.075	0.000	89.411	0.000	0.000	94.113	46.246	87.999	XOMR2_OWSG MWD+IFR1+MS
19600.000	90.000	269.853	9659.000	90.181	0.000	95.075	0.000	90.181	0.000	0.000	95.109	46.277	88.090	XOMR2_OWSG MWD+IFR1+MS
19700.000	90.000	269.853	9659.000	90.951	0.000	96.077	0.000	90.951	0.000	0.000	96.109	46.308	88.176	XOMR2_OWSG MWD+IFR1+MS
19800.000	90.000	269.853	9659.000	91.722	0.000	97.082	0.000	91.722	0.000	0.000	97.111	46.339	88.259	XOMR2_OWSG MWD+IFR1+MS
19900.000	90.000	269.853	9659.000	92.493	0.000	98.090	0.000	92.493	0.000	0.000	98.117	46.370	88.338	XOMR2_OWSG MWD+IFR1+MS
20000.000	90.000	269.853	9659.000	93.264	0.000	99.100	0.000	93.264	0.000	0.000	99.124	46.401	88.414	XOMR2_OWSG MWD+IFR1+MS
20100.000	90.000	269.853	9659.000	94.035	0.000	100.112	0.000	94.035	0.000	0.000	100.135	46.433	88.486	XOMR2_OWSG MWD+IFR1+MS
20200.000	90.000	269.853	9659.000	94.806	0.000	101.127	0.000	94.806	0.000	0.000	101.148	46.465	88.555	XOMR2_OWSG MWD+IFR1+MS
20300.000	90.000	269.853	9659.000	95.578	0.000	102.144	0.000	95.578	0.000	0.000	102.163	46.496	88.621	XOMR2_OWSG MWD+IFR1+MS
20400.000	90.000	269.853	9659.000	96.350	0.000	103.163	0.000	96.350	0.000	0.000	103.181	46.529	88.684	XOMR2_OWSG MWD+IFR1+MS
20500.000	90.000	269.853	9659.000	97.122	0.000	104.185	0.000	97.122	0.000	0.000	104.200	46.561	88.745	XOMR2_OWSG MWD+IFR1+MS
20600.000	90.000	269.853	9659.000	97.894	0.000	105.208	0.000	97.894	0.000	0.000	105.222	46.593	88.803	XOMR2_OWSG MWD+IFR1+MS
20700.000	90.000	269.853	9659.000	98.666	0.000	106.234	0.000	98.666	0.000	0.000	106.247	46.626	88.858	XOMR2_OWSG MWD+IFR1+MS
20800.000	90.000	269.853	9659.000	99.439	0.000	107.261	0.000	99.439	0.000	0.000	107.273	46.659	88.912	XOMR2_OWSG MWD+IFR1+MS
20900.000	90.000	269.853	9659.000	100.212	0.000	108.290	0.000	100.212	0.000	0.000	108.301	46.693	88.963	XOMR2_OWSG MWD+IFR1+MS
21000.000	90.000	269.853	9659.000	100.985	0.000	109.321	0.000	100.985	0.000	0.000	109.331	46.726	89.012	XOMR2_OWSG MWD+IFR1+MS
21100.000	90.000	269.853	9659.000	101.758	0.000	110.354	0.000	101.758	0.000	0.000	110.363	46.760	89.059	XOMR2_OWSG MWD+IFR1+MS
21200.000	90.000	269.853	9659.000	102.532	0.000	111.389	0.000	102.532	0.000	0.000	111.397	46.794	89.104	XOMR2_OWSG MWD+IFR1+MS
21300.000	90.000	269.853	9659.000	103.305	0.000	112.425	0.000	103.305	0.000	0.000	112.432	46.829	89.148	XOMR2_OWSG MWD+IFR1+MS

21400.000	90.000	269.853	9659.000	104.079	0.000	113.463	0.000	104.079	0.000	0.000	113.470	46.864	89.189	XOMR2_OWSG MWD+IFR1+MS
21500.000	90.000	269.853	9659.000	104.853	0.000	114.503	0.000	104.853	0.000	0.000	114.509	46.899	89.229	XOMR2_OWSG MWD+IFR1+MS
21600.000	90.000	269.853	9659.000	105.627	0.000	115.544	0.000	105.627	0.000	0.000	115.549	46.934	89.268	XOMR2_OWSG MWD+IFR1+MS
21700.000	90.000	269.853	9659.000	106.401	0.000	116.587	0.000	106.401	0.000	0.000	116.591	46.970	89.305	XOMR2_OWSG MWD+IFR1+MS
21800.000	90.000	269.853	9659.000	107.175	0.000	117.631	0.000	107.175	0.000	0.000	117.635	47.006	89.341	XOMR2_OWSG MWD+IFR1+MS
21900.000	90.000	269.853	9659.000	107.950	0.000	118.676	0.000	107.950	0.000	0.000	118.680	47.043	89.375	XOMR2_OWSG MWD+IFR1+MS
22000.000	90.000	269.853	9659.000	108.724	0.000	119.723	0.000	108.724	0.000	0.000	119.726	47.079	89.408	XOMR2_OWSG MWD+IFR1+MS
22100.000	90.000	269.853	9659.000	109.499	0.000	120.772	0.000	109.499	0.000	0.000	120.774	47.117	89.440	XOMR2_OWSG MWD+IFR1+MS
22200.000	90.000	269.853	9659.000	110.274	0.000	121.821	0.000	110.274	0.000	0.000	121.824	47.154	89.470	XOMR2_OWSG MWD+IFR1+MS
22300.000	90.000	269.853	9659.000	111.049	0.000	122.872	0.000	111.049	0.000	0.000	122.874	47.192	89.500	XOMR2_OWSG MWD+IFR1+MS
22400.000	90.000	269.853	9659.000	111.825	0.000	123.925	0.000	111.825	0.000	0.000	123.926	47.230	89.528	XOMR2_OWSG MWD+IFR1+MS
22500.000	90.000	269.853	9659.000	112.600	0.000	124.978	0.000	112.600	0.000	0.000	124.979	47.268	89.555	XOMR2_OWSG MWD+IFR1+MS
22600.000	90.000	269.853	9659.000	113.375	0.000	126.033	0.000	113.375	0.000	0.000	126.034	47.307	89.582	XOMR2_OWSG MWD+IFR1+MS
22700.000	90.000	269.853	9659.000	114.151	0.000	127.088	0.000	114.151	0.000	0.000	127.089	47.347	89.607	XOMR2_OWSG MWD+IFR1+MS
22800.000	90.000	269.853	9659.000	114.927	0.000	128.145	0.000	114.927	0.000	0.000	128.146	47.386	89.632	XOMR2_OWSG MWD+IFR1+MS
22900.000	90.000	269.853	9659.000	115.703	0.000	129.203	0.000	115.703	0.000	0.000	129.204	47.426	89.655	XOMR2_OWSG MWD+IFR1+MS
23000.000	90.000	269.853	9659.000	116.478	0.000	130.263	0.000	116.478	0.000	0.000	130.263	47.466	89.678	XOMR2_OWSG MWD+IFR1+MS
23100.000	90.000	269.853	9659.000	117.255	0.000	131.323	0.000	117.255	0.000	0.000	131.323	47.507	89.700	XOMR2_OWSG MWD+IFR1+MS
23200.000	90.000	269.853	9659.000	118.031	0.000	132.384	0.000	118.031	0.000	0.000	132.384	47.548	89.722	XOMR2_OWSG MWD+IFR1+MS
23300.000	90.000	269.853	9659.000	118.807	0.000	133.446	0.000	118.807	0.000	0.000	133.446	47.590	89.742	XOMR2_OWSG MWD+IFR1+MS

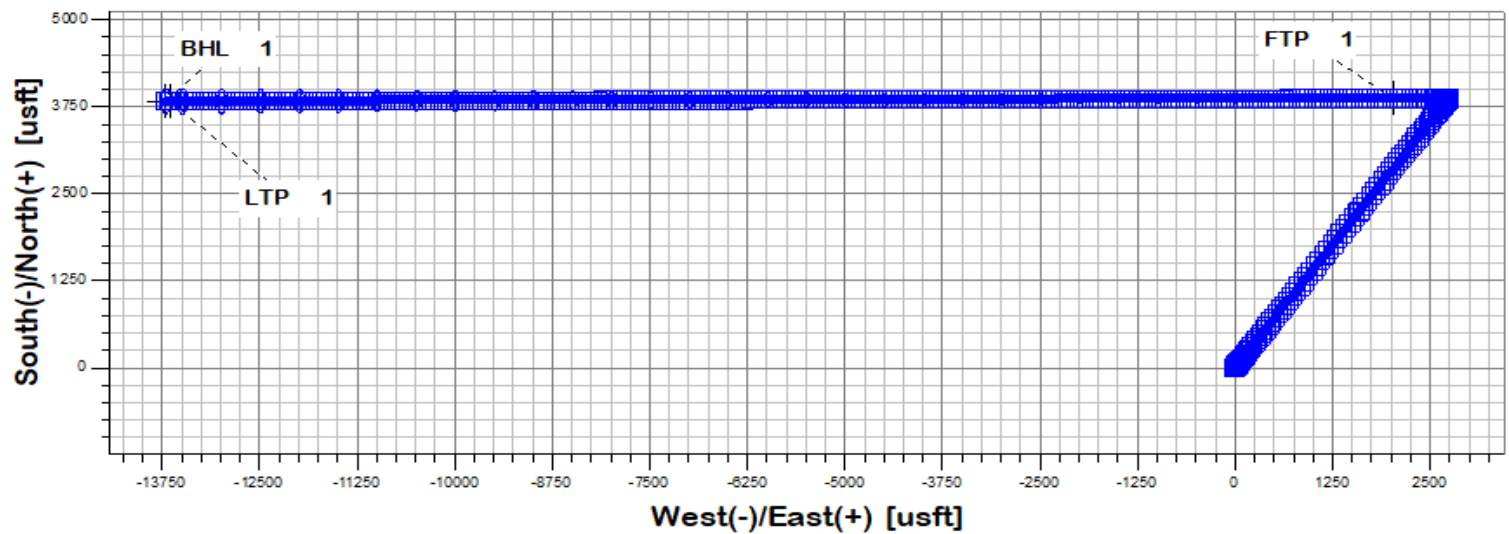
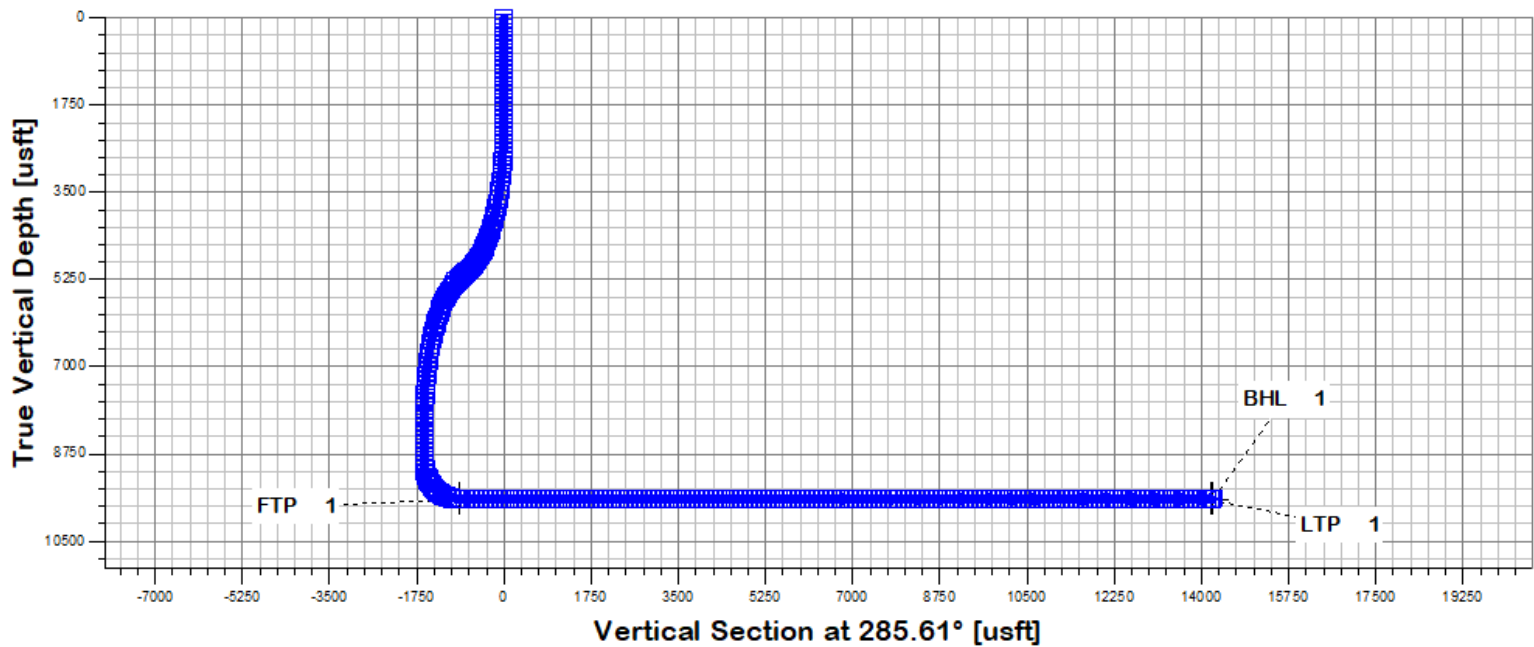
23400.000	90.000	269.853	9659.000	119.584	0.000	134.509	0.000	119.584	0.000	0.000	134.510	47.631	89.762	XOMR2_OWSG MWD+IFR1+MS
23500.000	90.000	269.853	9659.000	120.360	0.000	135.574	0.000	120.360	0.000	0.000	135.574	47.673	89.781	XOMR2_OWSG MWD+IFR1+MS
23600.000	90.000	269.853	9659.000	121.137	0.000	136.639	0.000	121.137	0.000	0.000	136.639	47.716	89.799	XOMR2_OWSG MWD+IFR1+MS
23700.000	90.000	269.853	9659.000	121.913	0.000	137.705	0.000	121.913	0.000	0.000	137.705	47.759	89.817	XOMR2_OWSG MWD+IFR1+MS
23800.000	90.000	269.853	9659.000	122.690	0.000	138.772	0.000	122.690	0.000	0.000	138.772	47.802	89.834	XOMR2_OWSG MWD+IFR1+MS
23900.000	90.000	269.853	9659.000	123.467	0.000	139.840	0.000	123.467	0.000	0.000	139.840	47.846	89.851	XOMR2_OWSG MWD+IFR1+MS
24000.000	90.000	269.853	9659.000	124.244	0.000	140.908	0.000	124.244	0.000	0.000	140.908	47.890	89.867	XOMR2_OWSG MWD+IFR1+MS
24100.000	90.000	269.853	9659.000	125.021	0.000	141.978	0.000	125.021	0.000	0.000	141.978	47.934	89.883	XOMR2_OWSG MWD+IFR1+MS
24200.000	90.000	269.853	9659.000	125.799	0.000	143.048	0.000	125.799	0.000	0.000	143.048	47.979	89.898	XOMR2_OWSG MWD+IFR1+MS
24300.000	90.000	269.853	9659.000	126.576	0.000	144.119	0.000	126.576	0.000	0.000	144.119	48.024	89.912	XOMR2_OWSG MWD+IFR1+MS
24400.000	90.000	269.853	9659.000	127.353	0.000	145.191	0.000	127.353	0.000	0.000	145.191	48.069	89.926	XOMR2_OWSG MWD+IFR1+MS
24500.000	90.000	269.853	9659.000	128.131	0.000	146.264	0.000	128.131	0.000	0.000	146.264	48.115	89.940	XOMR2_OWSG MWD+IFR1+MS
24600.000	90.000	269.853	9659.000	128.909	0.000	147.337	0.000	128.909	0.000	0.000	147.337	48.162	89.953	XOMR2_OWSG MWD+IFR1+MS
24700.000	90.000	269.853	9659.000	129.686	0.000	148.411	0.000	129.686	0.000	0.000	148.412	48.208	89.966	XOMR2_OWSG MWD+IFR1+MS
24800.000	90.000	269.853	9659.000	130.464	0.000	149.486	0.000	130.464	0.000	0.000	149.486	48.255	89.978	XOMR2_OWSG MWD+IFR1+MS
24900.000	90.000	269.853	9659.000	131.242	0.000	150.562	0.000	131.242	0.000	0.000	150.562	48.303	89.990	XOMR2_OWSG MWD+IFR1+MS
25000.000	90.000	269.853	9659.000	132.020	0.000	151.638	0.000	132.020	0.000	0.000	151.638	48.350	90.002	XOMR2_OWSG MWD+IFR1+MS
25100.000	90.000	269.853	9659.000	132.798	0.000	152.715	0.000	132.798	0.000	0.000	152.715	48.398	90.013	XOMR2_OWSG MWD+IFR1+MS
25200.000	90.000	269.853	9659.000	133.576	0.000	153.792	0.000	133.576	0.000	0.000	153.793	48.447	90.024	XOMR2_OWSG MWD+IFR1+MS
25300.000	90.000	269.853	9659.000	134.354	0.000	154.871	0.000	134.354	0.000	0.000	154.871	48.496	90.034	XOMR2_OWSG MWD+IFR1+MS

25400.000	90.000	269.853	9659.000	135.132	0.000	155.949	0.000	135.132	0.000	0.000	155.950	48.545	90.044	XOMR2_OWSG MWD+IFR1+MS
25500.000	90.000	269.853	9659.000	135.911	0.000	157.029	0.000	135.911	0.000	0.000	157.030	48.595	90.054	XOMR2_OWSG MWD+IFR1+MS
25600.000	90.000	269.853	9659.000	136.689	0.000	158.109	0.000	136.689	0.000	0.000	158.110	48.645	90.064	XOMR2_OWSG MWD+IFR1+MS
25700.000	90.000	269.853	9659.000	137.468	0.000	159.190	0.000	137.468	0.000	0.000	159.191	48.695	90.073	XOMR2_OWSG MWD+IFR1+MS
25800.000	90.000	269.853	9659.000	138.246	0.000	160.271	0.000	138.246	0.000	0.000	160.272	48.746	90.082	XOMR2_OWSG MWD+IFR1+MS
25900.000	90.000	269.853	9659.000	139.025	0.000	161.353	0.000	139.025	0.000	0.000	161.354	48.797	90.090	XOMR2_OWSG MWD+IFR1+MS
26000.000	90.000	269.853	9659.000	139.803	0.000	162.435	0.000	139.803	0.000	0.000	162.436	48.848	90.099	XOMR2_OWSG MWD+IFR1+MS
26100.000	90.000	269.853	9659.000	140.582	0.000	163.518	0.000	140.582	0.000	0.000	163.519	48.900	90.107	XOMR2_OWSG MWD+IFR1+MS
26200.000	90.000	269.853	9659.000	141.361	0.000	164.601	0.000	141.361	0.000	0.000	164.603	48.952	90.115	XOMR2_OWSG MWD+IFR1+MS
26300.000	90.000	269.853	9659.000	142.140	0.000	165.685	0.000	142.140	0.000	0.000	165.687	49.005	90.122	XOMR2_OWSG MWD+IFR1+MS
26400.000	90.000	269.853	9659.000	142.919	0.000	166.770	0.000	142.919	0.000	0.000	166.772	49.058	90.129	XOMR2_OWSG MWD+IFR1+MS
26500.000	90.000	269.853	9659.000	143.698	0.000	167.855	0.000	143.698	0.000	0.000	167.857	49.111	90.137	XOMR2_OWSG MWD+IFR1+MS
26600.000	90.000	269.853	9659.000	144.477	0.000	168.940	0.000	144.477	0.000	0.000	168.942	49.165	90.143	XOMR2_OWSG MWD+IFR1+MS
26700.000	90.000	269.853	9659.000	145.256	0.000	170.026	0.000	145.256	0.000	0.000	170.028	49.219	90.150	XOMR2_OWSG MWD+IFR1+MS
26800.000	90.000	269.853	9659.000	146.035	0.000	171.113	0.000	146.035	0.000	0.000	171.115	49.273	90.157	XOMR2_OWSG MWD+IFR1+MS
26900.000	90.000	269.853	9659.000	146.814	0.000	172.200	0.000	146.814	0.000	0.000	172.202	49.328	90.163	XOMR2_OWSG MWD+IFR1+MS
27000.000	90.000	269.853	9659.000	147.594	0.000	173.287	0.000	147.594	0.000	0.000	173.289	49.383	90.169	XOMR2_OWSG MWD+IFR1+MS
27100.000	90.000	269.853	9659.000	148.373	0.000	174.375	0.000	148.373	0.000	0.000	174.377	49.439	90.175	XOMR2_OWSG MWD+IFR1+MS
27200.000	90.000	269.853	9659.000	149.153	0.000	175.463	0.000	149.153	0.000	0.000	175.466	49.495	90.181	XOMR2_OWSG MWD+IFR1+MS
27300.000	90.000	269.853	9659.000	149.932	0.000	176.552	0.000	149.932	0.000	0.000	176.554	49.551	90.186	XOMR2_OWSG MWD+IFR1+MS

27400.000	90.000	269.853	9659.000	150.712	0.000	177.641	0.000	150.712	0.000	0.000	177.644	49.608	90.191	XOMR2_OWSG MWD+IFR1+MS
27500.000	90.000	269.853	9659.000	151.491	0.000	178.730	0.000	151.491	0.000	0.000	178.733	49.664	90.197	XOMR2_OWSG MWD+IFR1+MS
27600.000	90.000	269.853	9659.000	152.271	0.000	179.820	0.000	152.271	0.000	0.000	179.823	49.722	90.202	XOMR2_OWSG MWD+IFR1+MS
27700.000	90.000	269.853	9659.000	153.051	0.000	180.910	0.000	153.051	0.000	0.000	180.914	49.779	90.206	XOMR2_OWSG MWD+IFR1+MS
27800.000	90.000	269.853	9659.000	153.830	0.000	182.001	0.000	153.830	0.000	0.000	182.005	49.837	90.211	XOMR2_OWSG MWD+IFR1+MS
27900.000	90.000	269.853	9659.000	154.610	0.000	183.092	0.000	154.610	0.000	0.000	183.096	49.896	90.216	XOMR2_OWSG MWD+IFR1+MS
28000.000	90.000	269.853	9659.000	155.390	0.000	184.184	0.000	155.390	0.000	0.000	184.187	49.954	90.220	XOMR2_OWSG MWD+IFR1+MS
28063.693	90.000	269.853	9659.000	155.887	0.000	184.879	0.000	155.887	0.000	0.000	184.883	49.992	90.223	XOMR2_OWSG MWD+IFR1+MS
28100.000	90.000	269.853	9659.000	156.170	0.000	185.275	0.000	156.170	0.000	0.000	185.279	50.014	90.224	XOMR2_OWSG MWD+IFR1+MS
28113.701	90.000	269.853	9659.000	156.277	0.000	185.425	0.000	156.277	0.000	0.000	185.428	50.022	90.225	XOMR2_OWSG MWD+IFR1+MS

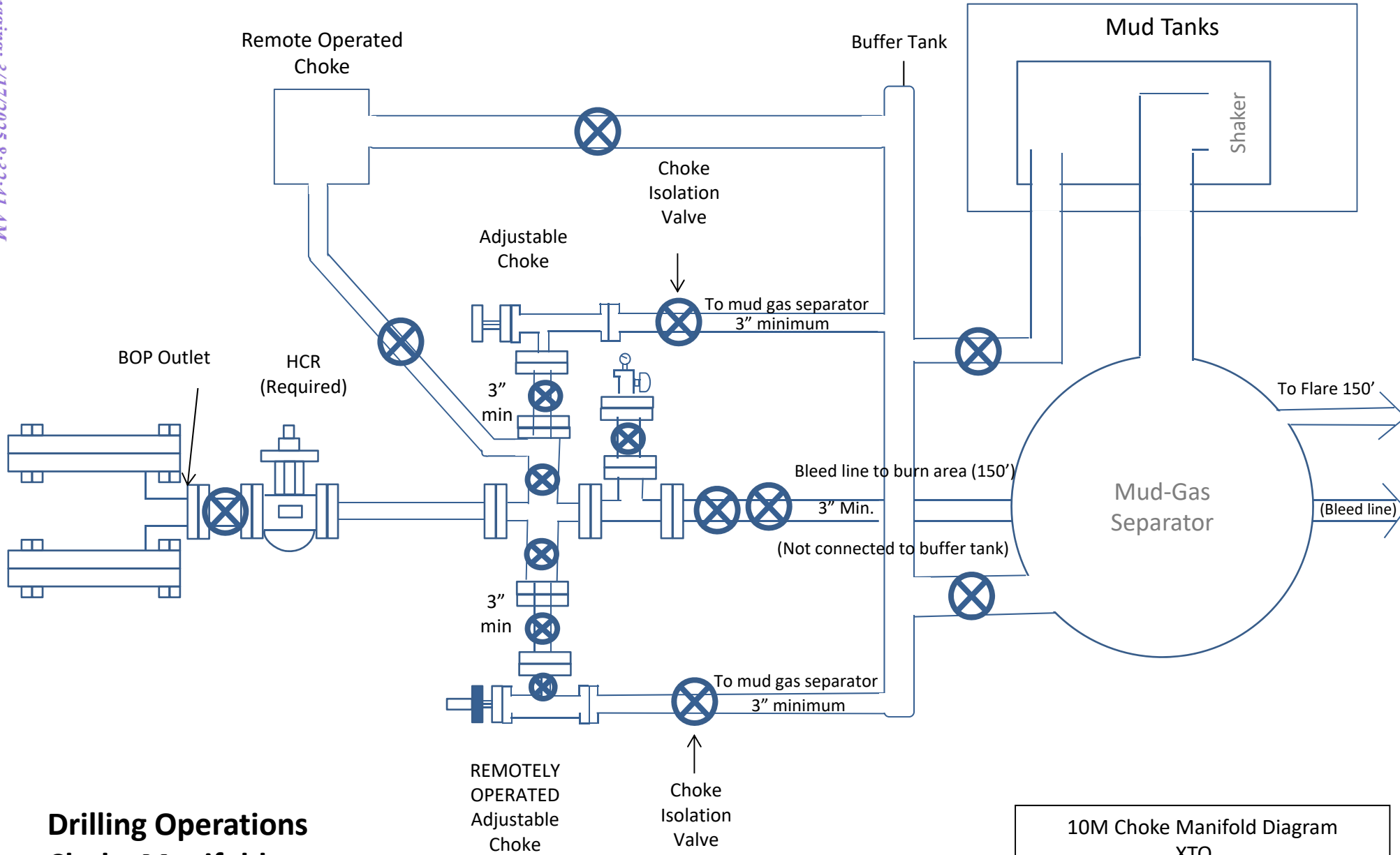
Plan Targets

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 1	12389.35	566848.10	649451.40	6103.00	CIRCLE
LTP 1	28063.66	566808.00	633777.20	6103.00	CIRCLE
BHL 1	28113.66	566807.90	633727.20	6103.00	CIRCLE



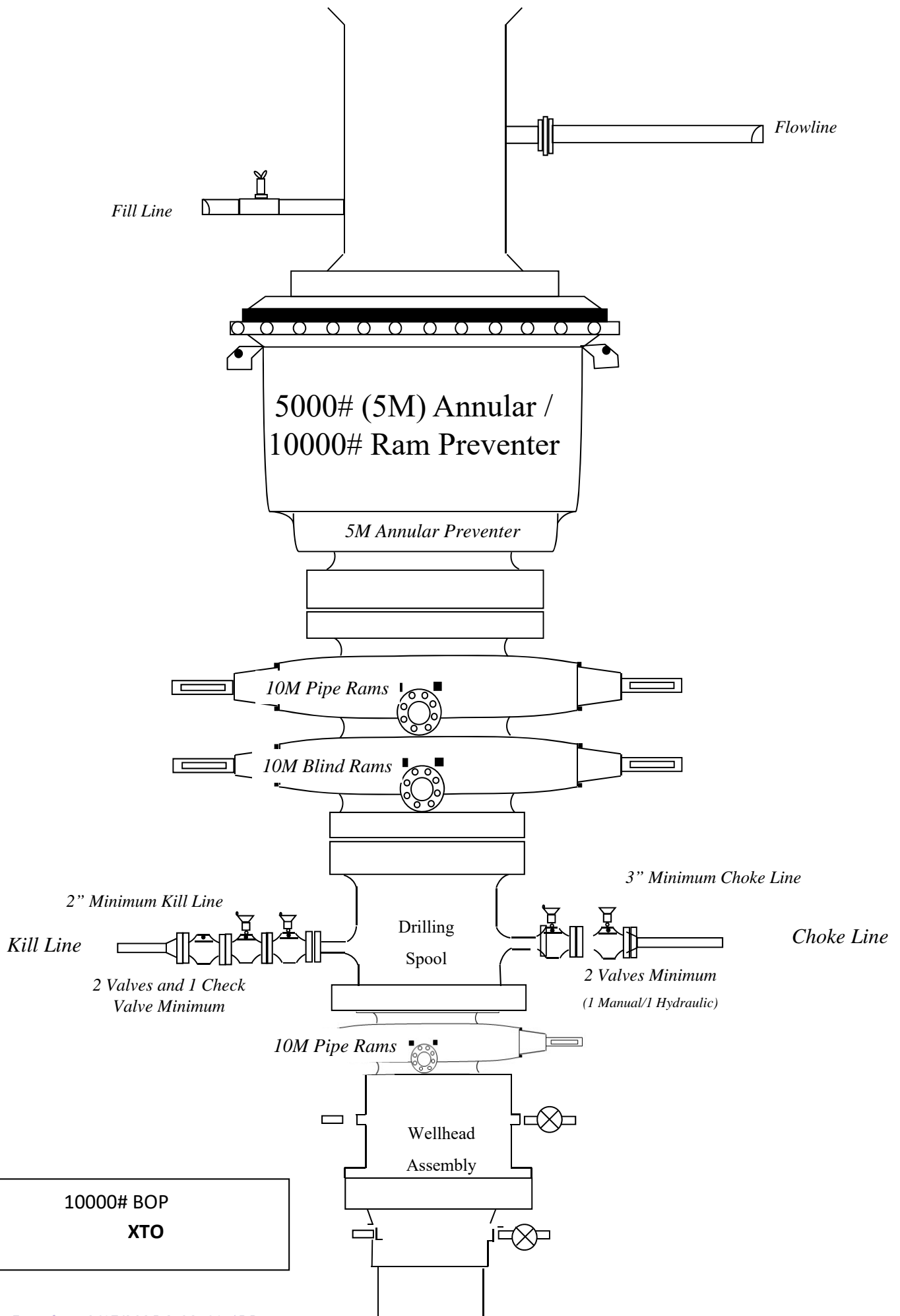
Formation	TVDSS (feet)	TVD (feet)
Rustler	2,882'	674'
Salado	2,606'	950'
Base Salt	1,354'	2,202'
Capitan Reef	694'	2,862'
Delaware Ss.	-381'	3,937'
Brushy Canyon Ss.	-2,338'	5,894'
Basal Brushy Canyon Ss.	-3,727'	7,283'
Bone Spring Lime	-3,914'	7,470'
Avalon Shale Upper SH	-4,109'	7,665'
Avalon Mid Carb	-4,453'	8,009'
Avalon Shale Lower SH	-4,612'	8,168'
1st Bone Spring Lime	-4,847'	8,403'
1st Bone Spring Sand	-5,188'	8,744'
2nd Bone Spring Lime	-5,549'	9,105'
2nd Bone Spring Sand	-5,649'	9,205'
2nd Bone Spring B Sand	-5,833'	9,389'
2nd Bone Spring C Sand	-6,044'	9,600'
Landing Point	-6,103'	9,659'
3rd Bone Spring Lime	-6,259'	9,815'

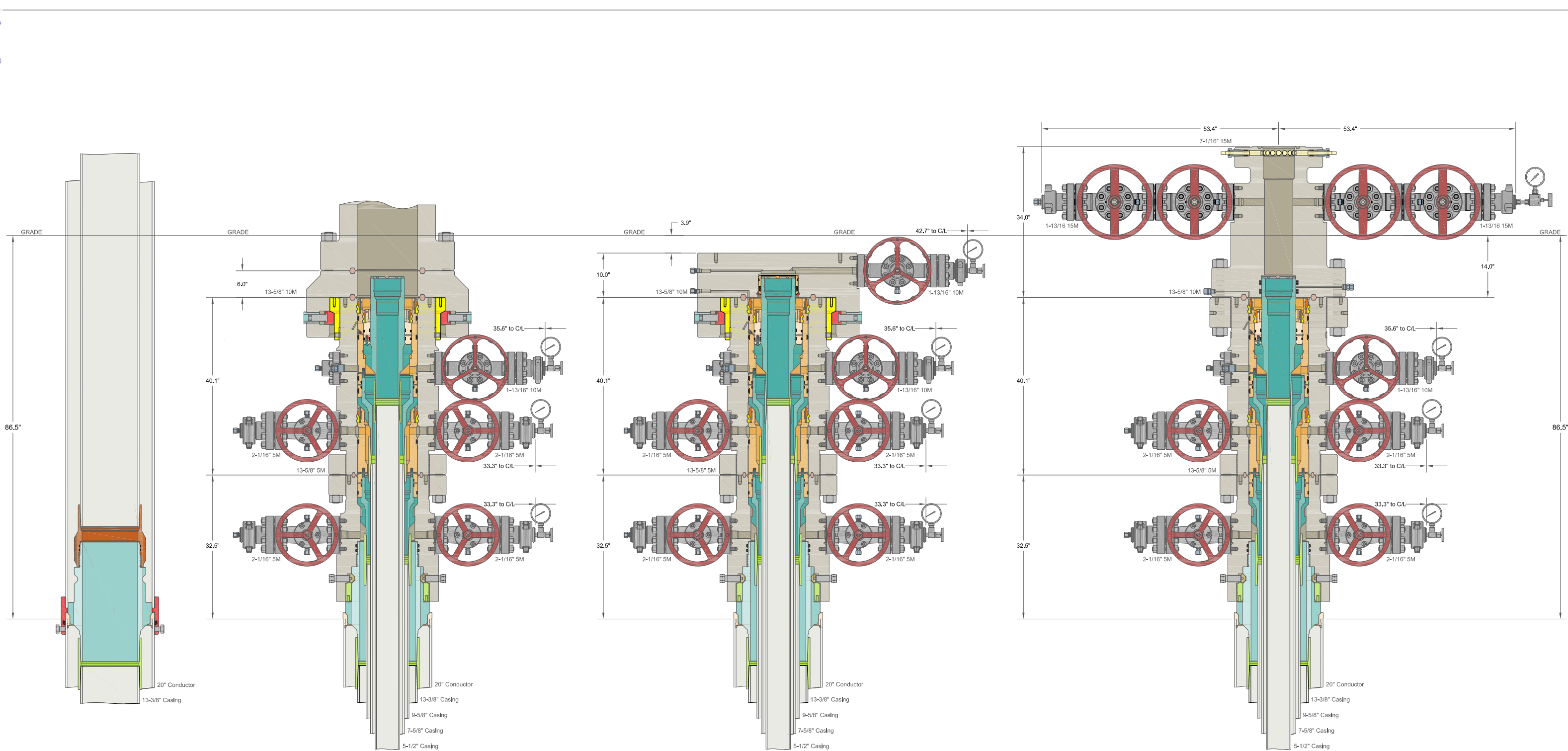
Bleed line will discharge 100' from wellhead for non-H2S situations and 150' from wellhead for H2S situations.



Drilling Operations Choke Manifold 10M Service

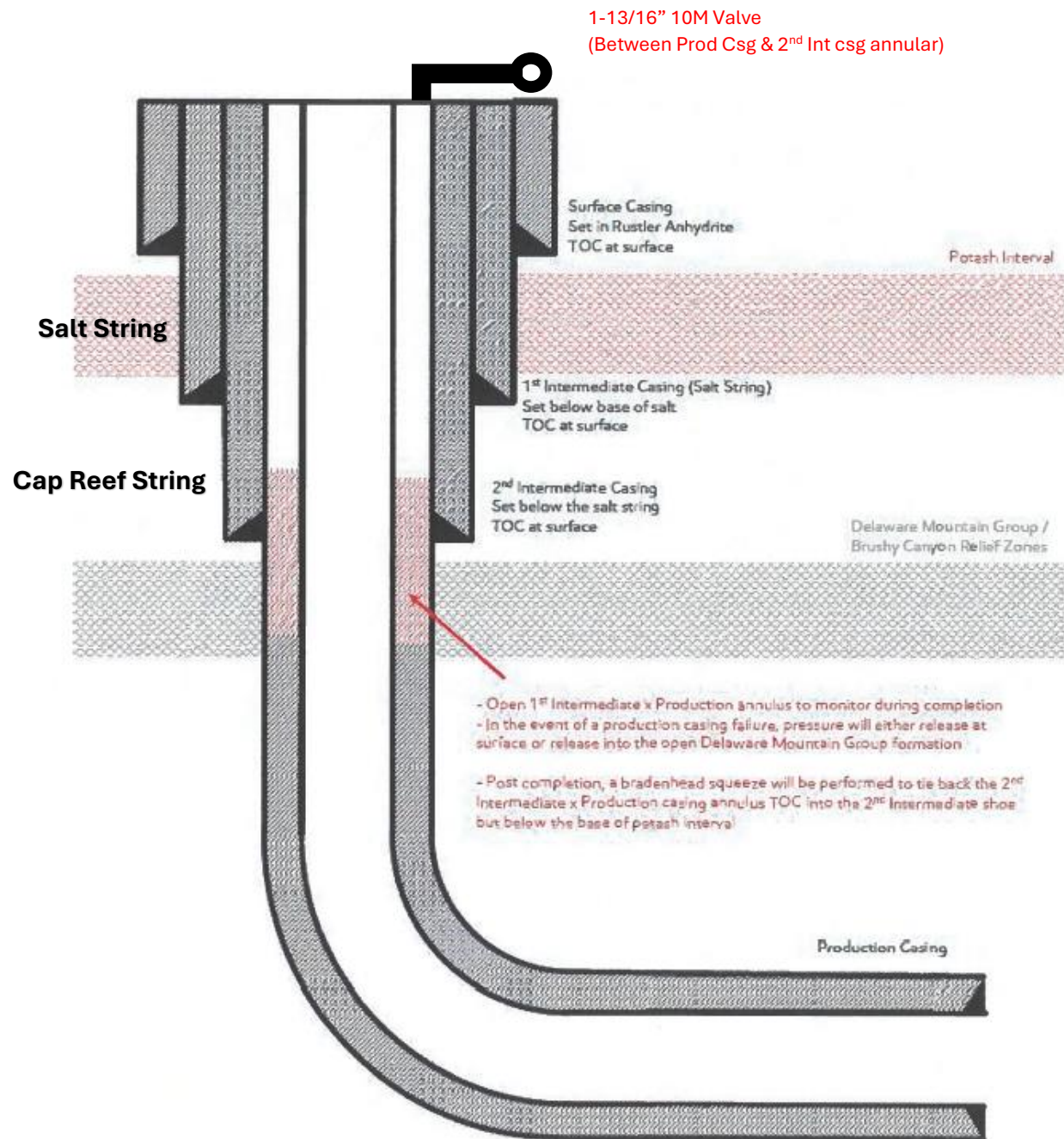
10M Choke Manifold Diagram
XTO





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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			
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 monitoring during frac and utilizing new casing that meets API standards.
2. Contingency plans in place to divert formation fluids away from salt interval in even of production casing 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. Production 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. Cismos***TITLE:****QUALITY ASSURANCE****DATE:****1/25/2024**



H3-15/16

1/25/2024 11:48:06 AM

TEST REPORT

CUSTOMER

Company: Nabors Industries Inc.

Production description: 74621/66-1531

Sales order #: 529480

Customer reference: FG1213

TEST OBJECT

Serial number: H3-012524-1

Lot number:

Description: 74621/66-1531

Hose ID: 3" 16C CK

Part number:

TEST INFORMATION

Test procedure: GTS-04-053

Test pressure: 15000.00 psi

Test pressure hold: 3600.00 sec

Work pressure: 10000.00 psi

Work pressure hold: 900.00 sec

Length difference: 0.00 %

Length difference: 0.00 inch

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

Part number:

Description:

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

Part number:

Description:

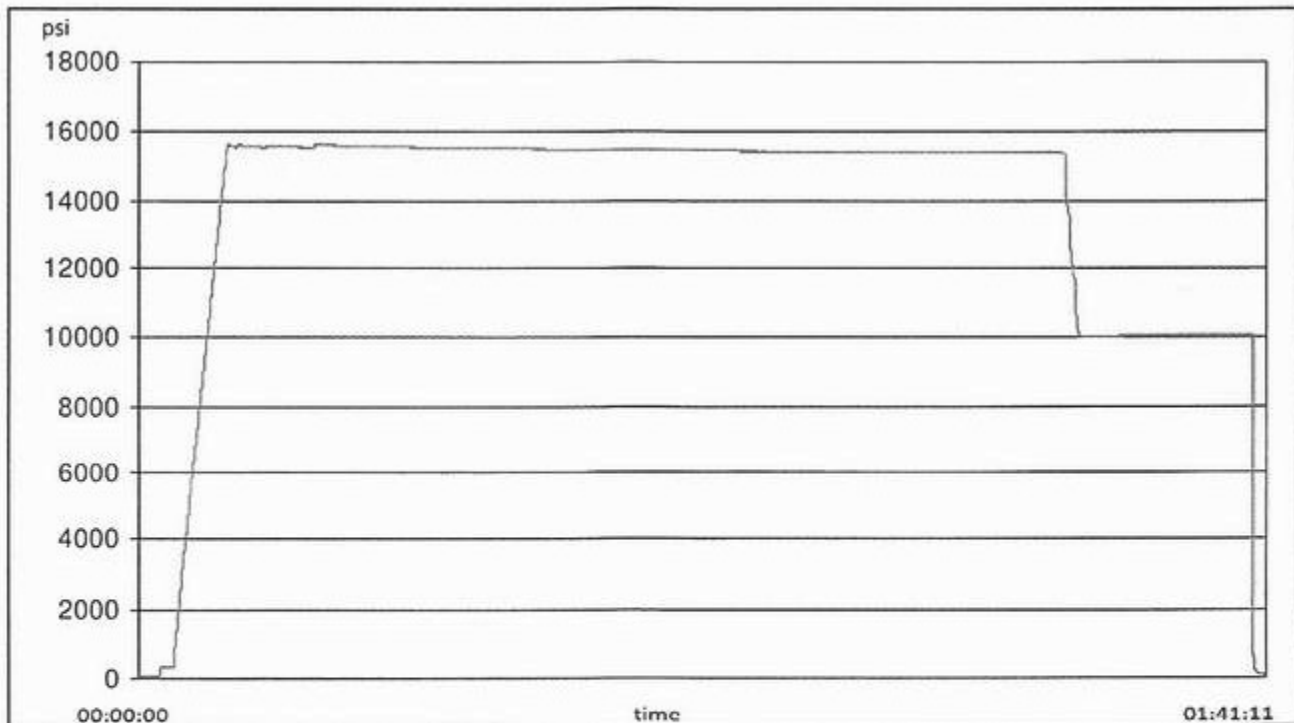
Visual check:

Pressure test result: PASS

Length measurement result:

Length: 45 feet

Test operator: Travis





H3-15/16

1/25/2024 11:48:06 AM

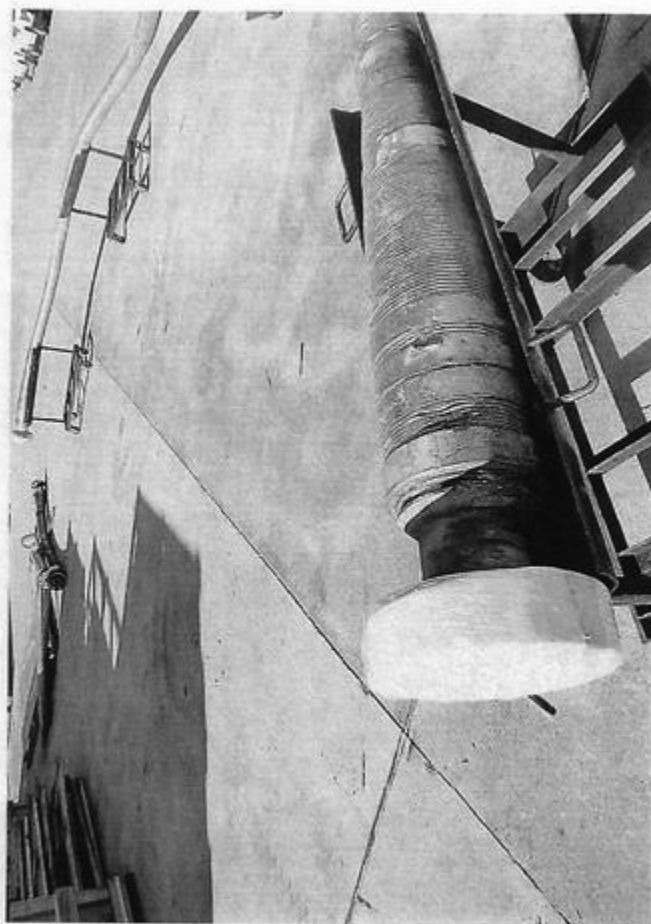
TEST REPORT

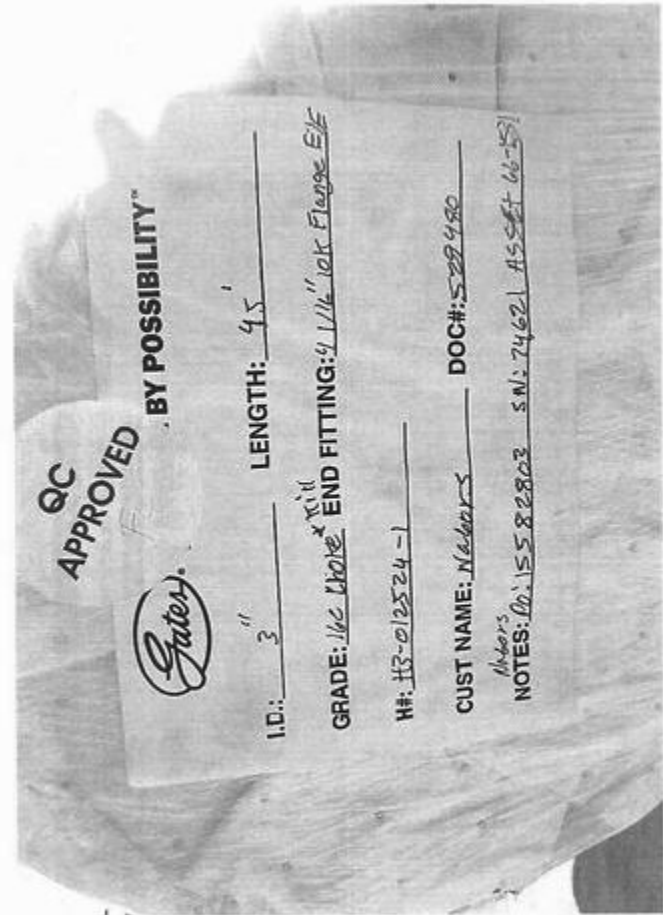
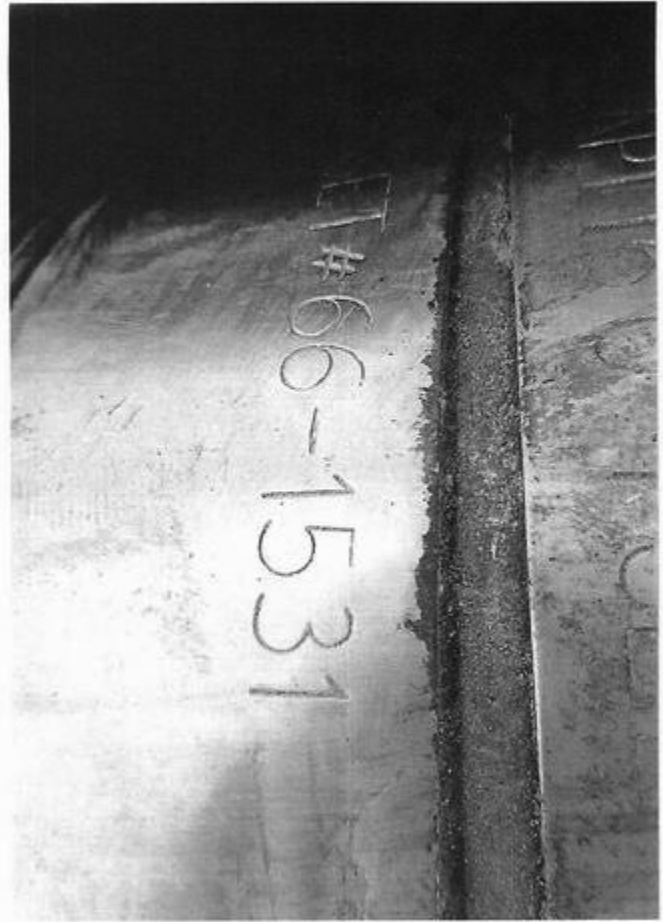
GAUGE TRACEABILITY

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

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

Description of Operations:

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

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

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

Background

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

Supporting Documentation

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



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

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

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API STANDARD 53

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

Component to be Pressure Tested	Pressure Test—Low Pressure ^{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

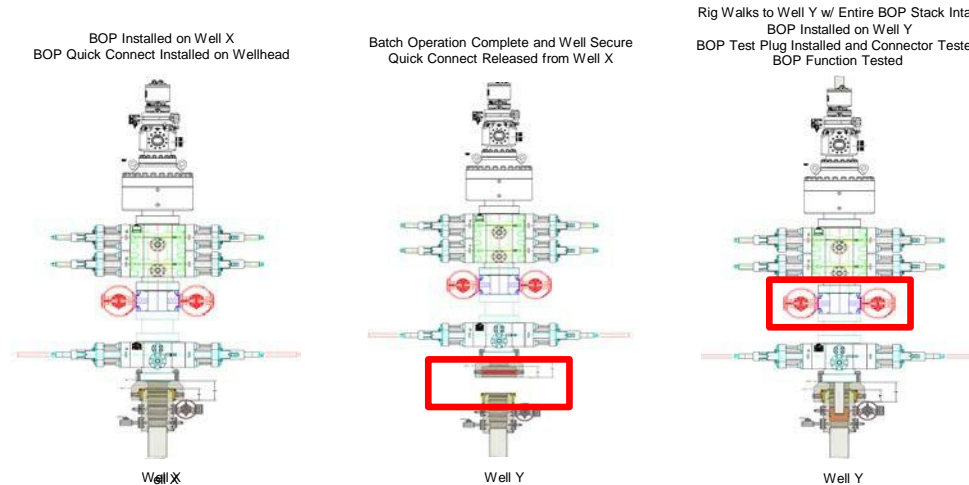
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

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.

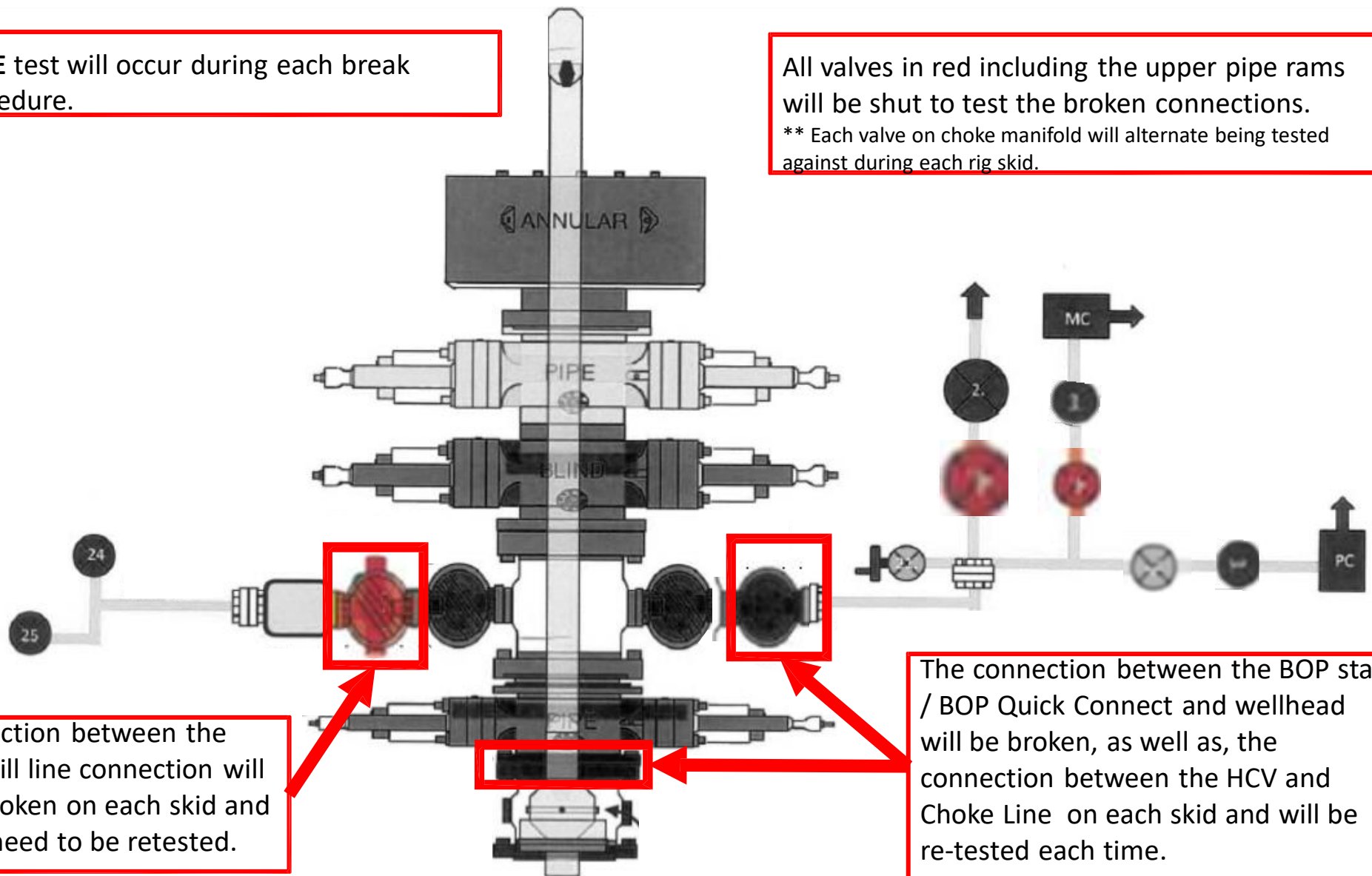
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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.

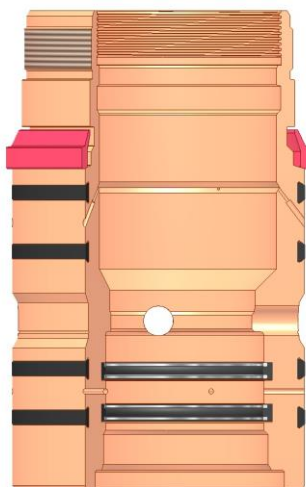
1. Cement Program

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

2. Offline Cementing Procedure

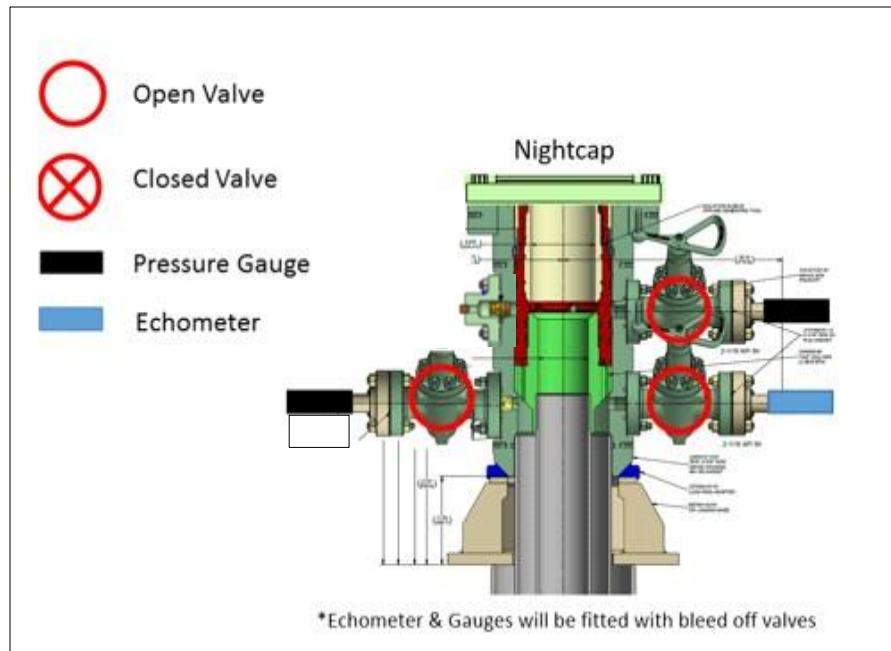
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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 nippedled down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



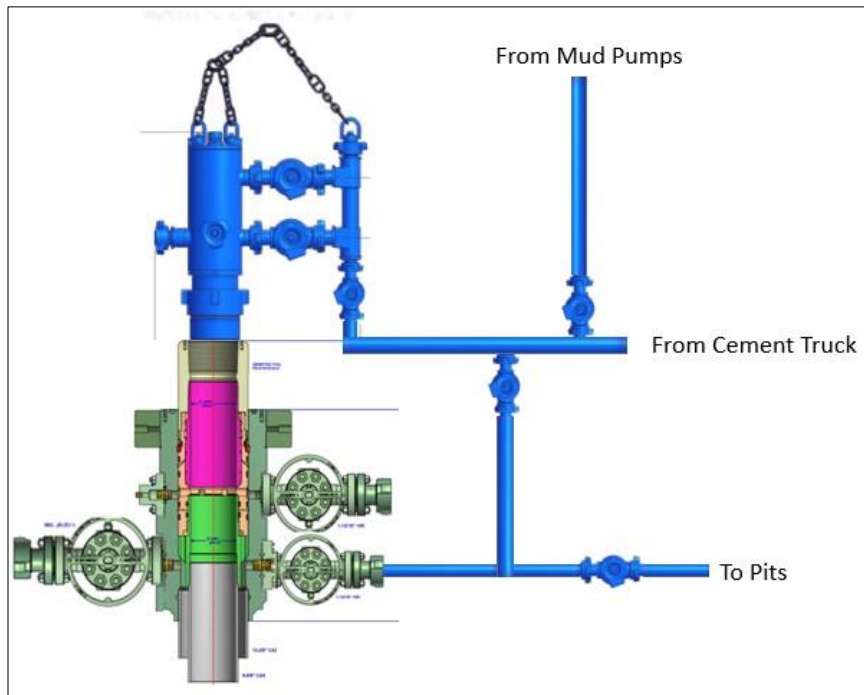
Annular packoff with both external and internal seals

XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during skidding operations

6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nipping up for further remediation.
 - a. Well Control Plan
 - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
 - ii. Rig pumps or a 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
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 437858

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 437858
	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