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

Sundry Print Report

02/25/2025

Well Name: JRU APACHE FEDERAL COM

Well Location: T22S / R30E / SEC 13 / SESE / 32.386159 / -103.828575

County or Parish/State: EDDY / NM

Well Number: 802H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM89051

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001555782

Operator: XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2827465

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 12/13/2024

Time Sundry Submitted: 12:40

Date proposed operation will begin: 12/27/2024

Procedure Description: JRU APACHE FEDERAL COM 802H APD ID# 10400085312 SUNDRY LANGUAGE XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include name of the well, SHL, FTP, LTP, BHL, casing design, cement program, mud circulation system and proposed total depth. The API number for this well is 30-015-55782. The well name is changing from “JRU APACHE FEDERAL COM 802H” to “JAMES RANCH UNIT APACHE 802H” FROM: TO: SHL: 476' FSL & 923' FEL OF SECTION 13-T22S-R30E 446' FSL & 963' FEL OF SECTION 13-T22S-R30E KOP: 476' FSL & 923' FEL OF SECTION 13-T22S-R30E 1832' FSL & 330' FEL OF SECTION 13-T22S-R30E FTP: 1650' FNL & 330' FEL OF SECTION 13-T22S-R30E 1832' FSL & 330' FEL OF SECTION 13-T22S-R30E LTP: 1650' FNL & 100' FWL OF SECTION 14-T22S-R30E 1832' FSL & 100' FWL OF SECTION 14-T22S-R30E BHL: 1650' FNL & 50' FWL OF SECTION 14-T22S-R30E 1832' FSL & 50' FWL OF SECTION 14-T22S-R30E The proposed total depth is changing from 21806’ MD/10409’ TVD to 19959.65’ MD/9697.62’ TVD There will be no changes required 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, Well Bore Diagram, MBS diagram, Gas Capture Plan, Break Test Variance.

NOI Attachments

Procedure Description

Sundry_Attachments___James_Ranch_Unit_Apache_802H_20241213123720.pdf

Well Name: JRU APACHE FEDERAL COM

Well Location: T22S / R30E / SEC 13 / SESE / 32.386159 / -103.828575

County or Parish/State: EDDY / NM

Well Number: 802H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM89051

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001555782

Operator: XTO PERMIAN OPERATING LLC

Conditions of Approval

Additional

James_Ranch_Unit__Apache__802H_COA_20250221082546.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: DEC 13, 2024 12:38 PM

Name: XTO PERMIAN OPERATING LLC

Title: REGULATORY ANALYST

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING **State:** TX

Phone: (720) 539-1673

Email address: SRINIVAS.N.LAGHUVARAPU@EXXONMOBIL.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 02/25/2025

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

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

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	**NMNM89051**
LOCATION:	Sec. 13, T.22 S, R 30 E
COUNTY:	Eddy County, New Mexico
WELL NAME & NO.:	James Ranch Unit Apache 802H
SURFACE HOLE FOOTAGE:	446'/S & 963/E
BOTTOM HOLE FOOTAGE:	1832'/S & 50'/W

COA

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

*Changes approved through engineering via **Sundry 2827465** on 2-21-2025. Any previous COAs not addressed within the updated COAs still apply.*

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 **9-5/8** inch surface casing shall be set at approximately **674** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7-5/8** inch Intermediate casing is:
    - 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, or potash.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

- **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.**

Operator has proposed to pump down **intermediate x production** annulus post completion. **Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the production casing to surface after the second stage BH to verify TOC.** Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry during second stage bradenhead when running Echo-meter if cement is required to surface. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

Operator has proposed an open annulus completion in R-111-Q. Operator shall provide a method of verification pre-completion top of cement. **Submit results to the BLM. Pressure monitoring device and Pressure Safety Valves must be installed at surface on both the intermediate annulus and the production annulus for the life of the well.**

In the event of a casing failure during completion, the operator must contact the BLM at (575-706-2779) and (575-361-2822 Eddy County).

- ❖ **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.**

3. 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 the Engineering Weak Point. **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. **Excess calculates to 5%. Additional cement maybe required.**

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)**

WIPP Requirements

The proposed surface well or bottom hole is located within 330 feet of the WIPP Land Withdrawal Area boundary. As a result, the operator is required to submit daily drilling reports, logs and deviation survey information to the Bureau of Land Management Engineering Department and the U.S. Department of Energy per requirements of the Joint Powers Agreement until a total vertical depth of 7,000 feet is reached. These reports will have at a minimum, the depth of any excess mud returns (brine flows), the rate of penetration and a clearly marked section showing the deviation for each 500-foot interval. Operator may be required to do more frequent deviation surveys based on the daily information submitted and may be required to take other corrective measures. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Upon completion of the well, the operator shall submit a complete directional survey. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

Any oil and gas well operator drilling within one mile of the WIPP Boundary must notify WIPP as soon as possible if any of the following conditions are encountered during oil and gas operations: R-111-Q Amendment - Notification to Operators (Potash)

a) Indication of any well collision event,
b) Suspected well fluid flow (oil, gas, or produced water) outside of casing,
c) Sustained annulus pressure between the 1st intermediate and next innermost casing string in excess of 500 psi above the baseline pressure of the well, or above 1500 psi total,
d) Increasing pressure buildup rates (psi/day) across multiple successive bleed-off cycles on the annulus between the 1st intermediate and next innermost casing during well production, or
e) Sustained losses in excess of 50% through the salt formation during drilling.

The operator can email the required information to OilGasReports@wipp.ws. Attached files must not be greater than 20 MB. Call WIPP Tech Support at 575-234-7422, during the hours 7:00am to 4:30pm, if there are any issues sending to this address.

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.

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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 2/21/2025
575-234-5998 / zstevens@blm.gov

C-102 Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024
		Submittal Type: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015-	40295	LOS MEDANOS, BONE SPRING

Property Code	Property Name	Well Number
	JAMES RANCH UNIT APACHE	802H

OGRID No.	Operator Name	Ground Level Elevation
373075	XTO PERMIAN OPERATING, LLC.	3,366'

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

Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	13	22S	30E		446 FSL	963 FEL	32.386074	-103.828703	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	14	22S	30E		1,832 FSL	50 FWL	32.389937	-103.860080	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
320.00	INFILL	30-015-55766	Y	U

Order Numbers. R-279-C | Well Setbacks are under Common Ownership: ☒ Yes ☐ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	13	22S	30E		1,832 FSL	330 FEL	32.389883	-103.826652	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	13	22S	30E		1,832 FSL	330 FEL	32.389883	-103.826652	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	14	22S	30E		1,832 FSL	100 FWL	32.389937	-103.859918	EDDY

Unitized Area of Area of Interest	Spacing Unit Type : ☒ Horizontal ☐ Vertical	Ground Elevation
NMNM-070965X		3,366'

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or a voluntary pooling agreement or a compulsory pooling order of heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Srinivas Naveen 12/12/24

Signature Date

Srinivas Naveen Laghuvarapu

Printed Name

srinivas.n.laghuvrapu@exxonmobil.com

Email Address

SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

MARK DILLON HARP 23786 — Certificate Number

12/9/2024 — Date of Survey

KT 618.013002.10-41

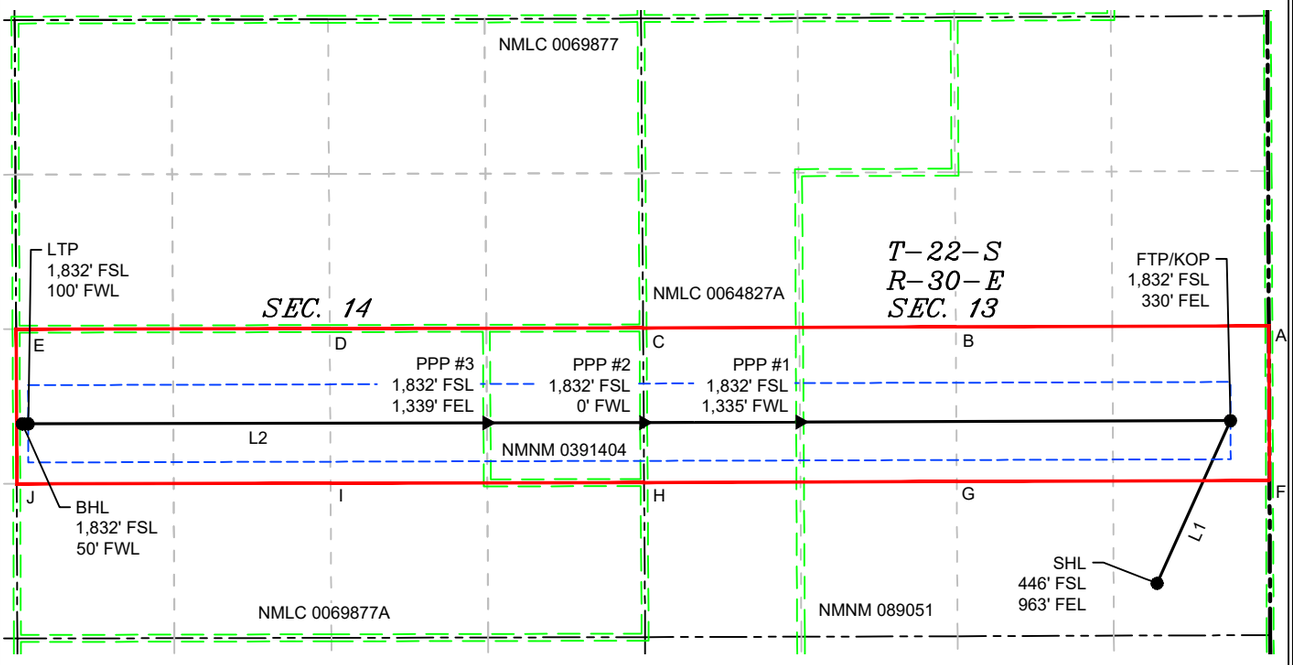
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

P:\618.013 XTO Energy - NM\002 James Ranch Unit\.10 - APACHE DI - EDDY\Wells\-41 - 802H\DWG\APACHE 802H C-102.dwg

ACREAGE DEDICATION PLATS

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

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



LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	024°17'26.58"	1,523.44
L2	269°50'49.37"	10,318.37

LEGEND

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

COORDINATE TABLE

SHL (NAD 83 NME)			FTP/KOP (NAD 83 NME)			PPP #1 (NAD 83 NME)			PPP #2 (NAD 83 NME)			PPP #3 (NAD 83 NME)		
Y =	504,552.7	N	Y =	505,941.3	N	Y =	505,929.6	N	Y =	505,925.3	N	Y =	505,922.4	N
X =	697,108.6	E	X =	697,735.3	E	X =	694,058.4	E	X =	692,723.4	E	X =	691,384.8	E
LAT. =	32.386074	°N	LAT. =	32.389883	°N	LAT. =	32.389898	°N	LAT. =	32.389903	°N	LAT. =	32.389912	°N
LONG. =	103.828703	°W	LONG. =	103.826652	°W	LONG. =	103.838564	°W	LONG. =	103.842889	°W	LONG. =	103.847225	°W

LTP (NAD 83 NME)			BHL (NAD 83 NME)		
Y =	505,913.9	N	Y =	505,913.8	N
X =	687,467.0	E	X =	687,417.0	E
LAT. =	32.389937	°N	LAT. =	32.389937	°N
LONG. =	103.859918	°W	LONG. =	103.860080	°W

SHL (NAD 27 NME)			FTP/KOP (NAD 27 NME)			PPP #1 (NAD 83 NME)			PPP #2 (NAD 83 NME)			PPP #3 (NAD 27 NME)		
Y =	504,492.1	N	Y =	505,880.7	N	Y =	505,868.9	N	Y =	505,864.7	N	Y =	505,861.7	N
X =	655,927.1	E	X =	656,553.8	E	X =	652,877.0	E	X =	651,542.0	E	X =	650,203.4	E
LAT. =	32.385952	°N	LAT. =	32.389760	°N	LAT. =	32.389775	°N	LAT. =	32.389780	°N	LAT. =	32.389789	°N
LONG. =	103.828210	°W	LONG. =	103.826158	°W	LONG. =	103.838070	°W	LONG. =	103.842394	°W	LONG. =	103.846731	°W

LTP (NAD 27 NME)			BHL (NAD 27 NME)		
Y =	505,853.2	N	Y =	505,853.1	N
X =	646,285.6	E	X =	646,235.6	E
LAT. =	32.389814	°N	LAT. =	32.389814	°N
LONG. =	103.859423	°W	LONG. =	103.859585	°W

CORNER COORDINATES (NAD 83 NME)						CORNER COORDINATES (NAD 27 NME)					
A - Y =	506,750.2	N	A - X =	698,061.8	E	A - Y =	506,689.5	N	A - X =	656,880.3	E
B - Y =	506,741.3	N	B - X =	695,389.1	E	B - Y =	506,680.6	N	B - X =	654,207.6	E
C - Y =	506,732.3	N	C - X =	692,717.9	E	C - Y =	506,671.6	N	C - X =	651,536.5	E
D - Y =	506,727.2	N	D - X =	690,042.0	E	D - Y =	506,666.5	N	D - X =	648,860.6	E
E - Y =	506,721.9	N	E - X =	687,363.8	E	E - Y =	506,661.2	N	E - X =	646,182.4	E
F - Y =	505,430.3	N	F - X =	698,067.5	E	F - Y =	505,369.7	N	F - X =	656,886.0	E
G - Y =	505,421.3	N	G - X =	695,396.5	E	G - Y =	505,360.7	N	G - X =	654,215.0	E
H - Y =	505,412.6	N	H - X =	692,726.6	E	H - Y =	505,351.9	N	H - X =	651,545.1	E
I - Y =	505,407.3	N	I - X =	690,049.1	E	I - Y =	505,346.6	N	I - X =	648,867.6	E
J - Y =	505,401.8	N	J - X =	687,369.0	E	J - Y =	505,341.1	N	J - X =	646,187.5	E

KT 618.013002.10-41

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

XTO Energy Inc.
JAMES RANCH UNIT APACHE 802H
Projected TD: 19959.65' MD / 9697.62' TVD
SHL: 446' FSL & 963' FEL , Section 13, T22S, R30E
BHL: 1832' FSL & 50' FWL , Section 14, T22S, R30E
EDDY County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	474'	Water
Top of Salt	774'	Water
MB 126	1458'	Water
Base of Salt	3626'	Water
Delaware	3887'	Water/Oil/Gas
Brushy Canyon	6395'	Water
Bone Spring	7804'	Water/Oil/Gas
Avalon	7869'	Water/Oil/Gas
1st Bone Spring	8651'	Water/Oil/Gas
2nd Bone Spring	9259'	Water/Oil/Gas
Target/Land Curve	9771'	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 casing @ 674' (100' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 3872' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 19959.65 MD/TD and 5.5 inch production casing will be set at TD.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 674'	9.625	40	J-55	BTC	New	3.72	9.34	23.37
8.75	0' – 3872'	7.625	29.7	RY P-110	Flush Joint	New	3.82	2.87	4.85
6.75	0' – 3772'	5.5	20	RY P-110	Semi-Premium / Freedom	New	1.26	6.22	2.34
6.75	3772' - 19959.65'	5.5	20	RY P-110	Semi-Flush / Talon	New	1.26	2.40	2.34

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

Wellhead:

Permanent Wellhead
Multibowl System for 3 String desing as per attachement.

4. Cement Program

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

Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 674'

Lead: 120 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

1St Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 3872'

Lead: 190 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: Surface
Tail: 30 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC:@ 3572
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

Production Casing: 5.5, 20 New Semi-Flush / Talon, RY P-110 casing to be set at +/- 19959.65'

Lead: 110 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 6395 feet
Tail: 770 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 9232.33 feet
Compressives: 12-hr = 800 psi 24 hr = 1500 psi

5. Pressure Control Equipment

Once the permanent WH is installed on the casing, the blow out preventer equipment (BOP) will consist of 5M Hydril and 10M 3-Ram BOP.

All BOP testing will be done by an independent service company. Operator will test as per CFR43-3172

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 intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

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.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)	Additional Comments
0' - 674'	12.25	FW/Native	8.4-8.9	35-40	NC	Fresh water or native water
674' - 3872'	8.75	Saturated brine for salt	9.5-10.5	30-32	NC	Fully saturated salt across salado
3872' - 19959.65'	6.75	OBM	9.1-9.6	50-60	NC - 20	N/A

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

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

7. Auxiliary Well Control and Monitoring Equipment

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

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 165 to 185 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.

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.

Well Plan Report - James Ranch Unit Apache 802H

Measured Depth:	19959.65 ft
TVD RKB:	9697.62 ft
Location	
Cartographic Reference System:	New Mexico East - NAD 27
Northing:	504492.10 ft
Easting:	655927.10 ft
RKB:	3398.00 ft
Ground Level:	3366
North Reference:	Grid
Convergence Angle:	0.27 Deg
Site:	E
Slot:	James Ranch Unit Apache 802H

Plan Sections — James Ranch Unit, Apache 802H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0	0	0	0	0	0	0	0	0	
1100	0	0	1100	0	0	0	0	0	
1789.5	13.79	24.29	1782.86	75.26	33.97	2	0	2	
7488.03	13.79	24.29	7317.14	1313.34	592.73	0	0	0	
8177.53	0	0	8000	1388.6	626.7	-2	0	2	
9232.33	0	0	9054.8	1388.6	626.7	0	0	0	
10357.33	90	269.85	9771	1386.69	-89.49	8	0	8	
10379.25	90.44	269.85	9770.91	1386.63	-111.41	2	0	2	
19909.65	90.44	269.85	9698	1361.1	-9641.5	0	0	0	LTP 17
19959.65	90.44	269.85	9697.62	1360.97	-9691.5	0	0	0	BHL 17

Position Uncertainty — James Ranch Unit, Apache 802H

Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD RKB (ft)	Highside Error (ft)	Bias (ft)	Lateral Error (ft)	Bias (ft)	Vertical Error (ft)	Bias (ft)	Magnitude of Bias (ft)	Semi-major Error (ft)	Semi-minor Error (ft)	Semi-minor Azimuth (°)	Tool Used
0	0	0	0	0	0	0	0	0	0	0	0	0	0	MWD+IFR1+MS
100	0	0	100	0.7	0	0.35	0	2.3	0	0	0.751	0.22	112.264	MWD+IFR1+MS
200	0	0	200	1.112	0	0.861	0	2.31	0	0	1.259	0.627	122.711	MWD+IFR1+MS
300	0	0	300	1.497	0	1.271	0	2.325	0	0	1.698	0.986	125.469	MWD+IFR1+MS
400	0	0	400	1.871	0	1.658	0	2.347	0	0	2.108	1.344	126.713	MWD+IFR1+MS
500	0	0	500	2.24	0	2.034	0	2.374	0	0	2.503	1.701	127.419	MWD+IFR1+MS
600	0	0	600	2.607	0	2.405	0	2.407	0	0	2.888	2.059	127.873	MWD+IFR1+MS
700	0	0	700	2.971	0	2.773	0	2.444	0	0	3.267	2.417	128.19	MWD+IFR1+MS
800	0	0	800	3.334	0	3.138	0	2.485	0	0	3.642	2.775	128.423	MWD+IFR1+MS
900	0	0	900	3.696	0	3.502	0	2.531	0	0	4.014	3.133	128.602	MWD+IFR1+MS
1000	0	0	1000	4.058	0	3.865	0	2.581	0	0	4.384	3.491	128.744	MWD+IFR1+MS
1100	0	0	1100	4.419	0	4.228	0	2.634	0	0	4.752	3.849	128.859	MWD+IFR1+MS
1200	2	24.291	1199.98	5.238	0	4.283	0	2.691	0	0	5.303	4.205	128.888	MWD+IFR1+MS
1300	4	24.291	1299.838	5.997	0	4.668	0	2.751	0	0	6.088	4.56	128.59	MWD+IFR1+MS

1400	6	24.291	1399.452	6.681	0	5.047	0	2.816	0	0	6.8	4.915	128.442	MWD+IFR1+MS
1500	8	24.291	1498.702	7.312	0	5.423	0	2.889	0	0	7.458	5.269	128.354	MWD+IFR1+MS
1600	10	24.291	1597.465	7.9	0	5.797	0	2.972	0	0	8.076	5.624	128.299	MWD+IFR1+MS
1700	12	24.291	1695.623	8.452	0	6.169	0	3.067	0	0	8.661	5.98	128.266	MWD+IFR1+MS
1789.498	13.79	24.291	1782.861	8.869	0	6.497	0	3.154	0	0	9.109	6.3	128.23	MWD+IFR1+MS
1800	13.79	24.291	1793.06	8.897	0	6.533	0	3.157	0	0	9.137	6.338	128.208	MWD+IFR1+MS
1900	13.79	24.291	1890.177	9.166	0	6.888	0	3.239	0	0	9.397	6.703	128.235	MWD+IFR1+MS
2000	13.79	24.291	1987.295	9.458	0	7.263	0	3.326	0	0	9.683	7.079	128.546	MWD+IFR1+MS
2100	13.79	24.291	2084.413	9.757	0	7.64	0	3.417	0	0	9.976	7.456	128.85	MWD+IFR1+MS
2200	13.79	24.291	2181.53	10.063	0	8.017	0	3.511	0	0	10.276	7.833	129.148	MWD+IFR1+MS
2300	13.79	24.291	2278.648	10.375	0	8.395	0	3.608	0	0	10.581	8.211	129.439	MWD+IFR1+MS
2400	13.79	24.291	2375.765	10.693	0	8.773	0	3.708	0	0	10.891	8.59	129.723	MWD+IFR1+MS
2500	13.79	24.291	2472.883	11.016	0	9.152	0	3.811	0	0	11.206	8.969	130.001	MWD+IFR1+MS
2600	13.79	24.291	2570.001	11.343	0	9.531	0	3.916	0	0	11.525	9.349	130.273	MWD+IFR1+MS
2700	13.79	24.291	2667.118	11.675	0	9.911	0	4.024	0	0	11.848	9.729	130.538	MWD+IFR1+MS
2800	13.79	24.291	2764.236	12.01	0	10.291	0	4.133	0	0	12.175	10.109	130.797	MWD+IFR1+MS
2900	13.79	24.291	2861.353	12.35	0	10.672	0	4.245	0	0	12.506	10.489	131.05	MWD+IFR1+MS
3000	13.79	24.291	2958.471	12.692	0	11.052	0	4.359	0	0	12.839	10.87	131.297	MWD+IFR1+MS
3100	13.79	24.291	3055.589	13.038	0	11.433	0	4.474	0	0	13.176	11.251	131.538	MWD+IFR1+MS
3200	13.79	24.291	3152.706	13.386	0	11.815	0	4.592	0	0	13.515	11.633	131.772	MWD+IFR1+MS
3300	13.79	24.291	3249.824	13.737	0	12.196	0	4.711	0	0	13.856	12.014	132.001	MWD+IFR1+MS
3400	13.79	24.291	3346.941	14.091	0	12.578	0	4.832	0	0	14.2	12.396	132.224	MWD+IFR1+MS
3500	13.79	24.291	3444.059	14.446	0	12.96	0	4.955	0	0	14.546	12.777	132.442	MWD+IFR1+MS
3600	13.79	24.291	3541.177	14.804	0	13.342	0	5.079	0	0	14.894	13.159	132.654	MWD+IFR1+MS
3700	13.79	24.291	3638.294	15.164	0	13.724	0	5.205	0	0	15.244	13.542	132.86	MWD+IFR1+MS
3800	13.79	24.291	3735.412	15.525	0	14.106	0	5.333	0	0	15.595	13.924	133.061	MWD+IFR1+MS
3900	13.79	24.291	3832.529	15.888	0	14.489	0	5.462	0	0	15.948	14.306	133.256	MWD+IFR1+MS
4000	13.79	24.291	3929.647	16.253	0	14.871	0	5.593	0	0	16.303	14.689	133.446	MWD+IFR1+MS
4100	13.79	24.291	4026.765	16.619	0	15.254	0	5.725	0	0	16.659	15.072	133.631	MWD+IFR1+MS
4200	13.79	24.291	4123.882	16.987	0	15.637	0	5.859	0	0	17.016	15.454	133.811	MWD+IFR1+MS
4300	13.79	24.291	4221	17.355	0	16.019	0	5.994	0	0	17.375	15.837	133.986	MWD+IFR1+MS
4400	13.79	24.291	4318.117	17.725	0	16.402	0	6.131	0	0	17.735	16.22	134.155	MWD+IFR1+MS
4500	13.79	24.291	4415.235	18.096	0	16.785	0	6.269	0	0	18.095	16.603	134.32	MWD+IFR1+MS
4600	13.79	24.291	4512.353	18.468	0	17.168	0	6.409	0	0	18.457	16.987	134.48	MWD+IFR1+MS
4700	13.79	24.291	4609.47	18.841	0	17.552	0	6.55	0	0	18.82	17.37	134.635	MWD+IFR1+MS
4800	13.79	24.291	4706.588	19.216	0	17.935	0	6.693	0	0	19.184	17.753	134.785	MWD+IFR1+MS
4900	13.79	24.291	4803.706	19.59	0	18.318	0	6.838	0	0	19.548	18.137	134.93	MWD+IFR1+MS
5000	13.79	24.291	4900.823	19.966	0	18.701	0	6.984	0	0	19.914	18.52	-44.929	MWD+IFR1+MS

5100	13.79	24.291	4997.941	20.343	0	19.085	0	7.132	0	0	20.28	18.904	-44.793	MWD+IFR1+MS
5200	13.79	24.291	5095.058	20.72	0	19.468	0	7.281	0	0	20.647	19.288	-44.661	MWD+IFR1+MS
5300	13.79	24.291	5192.176	21.098	0	19.852	0	7.432	0	0	21.014	19.671	-44.534	MWD+IFR1+MS
5400	13.79	24.291	5289.294	21.477	0	20.235	0	7.585	0	0	21.383	20.055	-44.412	MWD+IFR1+MS
5500	13.79	24.291	5386.411	21.856	0	20.619	0	7.739	0	0	21.751	20.439	-44.294	MWD+IFR1+MS
5600	13.79	24.291	5483.529	22.236	0	21.002	0	7.895	0	0	22.121	20.823	-44.18	MWD+IFR1+MS
5700	13.79	24.291	5580.646	22.616	0	21.386	0	8.053	0	0	22.491	21.207	-44.07	MWD+IFR1+MS
5800	13.79	24.291	5677.764	22.997	0	21.77	0	8.212	0	0	22.862	21.591	-43.965	MWD+IFR1+MS
5900	13.79	24.291	5774.882	23.379	0	22.153	0	8.374	0	0	23.233	21.975	-43.865	MWD+IFR1+MS
6000	13.79	24.291	5871.999	23.761	0	22.537	0	8.537	0	0	23.604	22.359	-43.768	MWD+IFR1+MS
6100	13.79	24.291	5969.117	24.143	0	22.921	0	8.701	0	0	23.976	22.743	-43.676	MWD+IFR1+MS
6200	13.79	24.291	6066.234	24.526	0	23.305	0	8.868	0	0	24.349	23.128	-43.587	MWD+IFR1+MS
6300	13.79	24.291	6163.352	24.909	0	23.689	0	9.036	0	0	24.722	23.512	-43.503	MWD+IFR1+MS
6400	13.79	24.291	6260.47	25.293	0	24.073	0	9.207	0	0	25.095	23.896	-43.423	MWD+IFR1+MS
6500	13.79	24.291	6357.587	25.677	0	24.456	0	9.379	0	0	25.469	24.281	-43.348	MWD+IFR1+MS
6600	13.79	24.291	6454.705	26.061	0	24.84	0	9.553	0	0	25.843	24.665	-43.276	MWD+IFR1+MS
6700	13.79	24.291	6551.822	26.446	0	25.224	0	9.729	0	0	26.218	25.05	-43.208	MWD+IFR1+MS
6800	13.79	24.291	6648.94	26.831	0	25.608	0	9.907	0	0	26.592	25.434	-43.144	MWD+IFR1+MS
6900	13.79	24.291	6746.058	27.217	0	25.992	0	10.087	0	0	26.968	25.819	-43.085	MWD+IFR1+MS
7000	13.79	24.291	6843.175	27.603	0	26.376	0	10.268	0	0	27.343	26.204	-43.029	MWD+IFR1+MS
7100	13.79	24.291	6940.293	27.989	0	26.76	0	10.452	0	0	27.719	26.588	-42.977	MWD+IFR1+MS
7200	13.79	24.291	7037.41	28.375	0	27.144	0	10.638	0	0	28.095	26.973	-42.929	MWD+IFR1+MS
7300	13.79	24.291	7134.528	28.762	0	27.528	0	10.826	0	0	28.472	27.358	-42.885	MWD+IFR1+MS
7400	13.79	24.291	7231.646	29.149	0	27.912	0	11.016	0	0	28.849	27.743	-42.845	MWD+IFR1+MS
7488.031	13.79	24.291	7317.139	29.488	0	28.249	0	11.185	0	0	29.179	28.081	-42.859	MWD+IFR1+MS
7500	13.551	24.291	7328.769	29.539	0	28.294	0	11.208	0	0	29.222	28.127	-42.88	MWD+IFR1+MS
7600	11.551	24.291	7426.375	29.965	0	28.67	0	11.402	0	0	29.615	28.506	-43.281	MWD+IFR1+MS
7700	9.551	24.291	7524.679	30.411	0	29.044	0	11.598	0	0	30.064	28.88	-44.066	MWD+IFR1+MS
7800	7.551	24.291	7623.562	30.813	0	29.41	0	11.787	0	0	30.507	29.246	-44.748	MWD+IFR1+MS
7900	5.551	24.291	7722.905	31.172	0	29.769	0	11.969	0	0	30.941	29.604	134.667	MWD+IFR1+MS
8000	3.551	24.291	7822.584	31.485	0	30.12	0	12.146	0	0	31.366	29.954	134.169	MWD+IFR1+MS
8100	1.551	24.291	7922.48	31.755	0	30.464	0	12.318	0	0	31.781	30.295	133.751	MWD+IFR1+MS
8177.529	0	0	8000	31.364	0	31.274	0	12.45	0	0	32.063	30.557	133.29	MWD+IFR1+MS
8200	0	0	8022.471	31.437	0	31.346	0	12.488	0	0	32.134	30.631	133.265	MWD+IFR1+MS
8300	0	0	8122.471	31.761	0	31.668	0	12.658	0	0	32.45	30.962	133.211	MWD+IFR1+MS
8400	0	0	8222.471	32.089	0	31.995	0	12.831	0	0	32.773	31.294	133.166	MWD+IFR1+MS
8500	0	0	8322.471	32.418	0	32.322	0	13.008	0	0	33.097	31.626	133.122	MWD+IFR1+MS
8600	0	0	8422.471	32.748	0	32.65	0	13.188	0	0	33.422	31.959	133.078	MWD+IFR1+MS

8700	0	0	8522.471	33.078	0	32.978	0	13.371	0	0	33.747	32.292	133.035	MWD+IFR1+MS
8800	0	0	8622.471	33.408	0	33.307	0	13.557	0	0	34.074	32.626	132.992	MWD+IFR1+MS
8900	0	0	8722.471	33.74	0	33.637	0	13.746	0	0	34.4	32.96	132.949	MWD+IFR1+MS
9000	0	0	8822.471	34.071	0	33.967	0	13.939	0	0	34.728	33.295	132.907	MWD+IFR1+MS
9100	0	0	8922.471	34.404	0	34.298	0	14.135	0	0	35.056	33.631	132.865	MWD+IFR1+MS
9200	0	0	9022.471	34.737	0	34.629	0	14.334	0	0	35.385	33.967	132.823	MWD+IFR1+MS
9232.329	0	0	9054.8	34.843	0	34.735	0	14.399	0	0	35.488	34.075	132.805	MWD+IFR1+MS
9300	5.414	269.847	9122.37	34.662	0	35.053	0	14.536	0	0	35.716	34.335	133.963	MWD+IFR1+MS
9400	13.414	269.847	9220.943	34.854	0	35.355	0	14.795	0	0	36.455	35.012	-29.088	MWD+IFR1+MS
9500	21.414	269.847	9316.283	34.875	0	35.646	0	15.238	0	0	37.574	35.508	-14.927	MWD+IFR1+MS
9600	29.414	269.847	9406.533	34.409	0	35.922	0	15.925	0	0	38.644	35.856	-8.811	MWD+IFR1+MS
9700	37.414	269.847	9489.936	33.537	0	36.181	0	16.894	0	0	39.557	36.147	-5.736	MWD+IFR1+MS
9800	45.414	269.847	9564.871	32.362	0	36.424	0	18.14	0	0	40.286	36.405	-3.984	MWD+IFR1+MS
9900	53.414	269.847	9629.877	31.02	0	36.65	0	19.628	0	0	40.828	36.64	-2.945	MWD+IFR1+MS
10000	61.414	269.847	9683.691	29.677	0	36.863	0	21.3	0	0	41.197	36.856	-2.378	MWD+IFR1+MS
10100	69.414	269.847	9725.263	28.528	0	37.062	0	23.09	0	0	41.417	37.056	-2.196	MWD+IFR1+MS
10200	77.414	269.847	9753.786	27.773	0	37.249	0	24.933	0	0	41.522	37.242	-2.385	MWD+IFR1+MS
10300	85.414	269.847	9768.704	27.591	0	37.422	0	26.766	0	0	41.556	37.411	-2.966	MWD+IFR1+MS
10357.329	90	269.847	9770.997	27.209	0	37.511	0	27.209	0	0	41.562	37.497	-3.493	MWD+IFR1+MS
10379.247	90.438	269.847	9770.913	27.196	0	37.544	0	27.262	0	0	41.564	37.528	-3.717	MWD+IFR1+MS
10400	90.438	269.847	9770.755	27.24	0	37.578	0	27.306	0	0	41.566	37.559	-3.936	MWD+IFR1+MS
10500	90.438	269.847	9769.99	27.469	0	37.762	0	27.534	0	0	41.579	37.733	-5.061	MWD+IFR1+MS
10600	90.438	269.847	9769.225	27.723	0	37.982	0	27.786	0	0	41.596	37.937	-6.332	MWD+IFR1+MS
10700	90.438	269.847	9768.459	27.996	0	38.233	0	28.057	0	0	41.618	38.17	-7.798	MWD+IFR1+MS
10800	90.438	269.847	9767.694	28.289	0	38.516	0	28.348	0	0	41.645	38.427	-9.525	MWD+IFR1+MS
10900	90.438	269.847	9766.929	28.599	0	38.829	0	28.658	0	0	41.681	38.707	-11.609	MWD+IFR1+MS
11000	90.438	269.847	9766.164	28.928	0	39.171	0	28.985	0	0	41.728	39.006	-14.179	MWD+IFR1+MS
11100	90.438	269.847	9765.399	29.275	0	39.542	0	29.329	0	0	41.79	39.318	-17.412	MWD+IFR1+MS
11200	90.438	269.847	9764.634	29.638	0	39.941	0	29.691	0	0	41.875	39.637	-21.531	MWD+IFR1+MS
11300	90.438	269.847	9763.869	30.017	0	40.368	0	30.068	0	0	41.994	39.949	-26.761	MWD+IFR1+MS
11400	90.438	269.847	9763.104	30.411	0	40.821	0	30.461	0	0	42.159	40.242	-33.18	MWD+IFR1+MS
11500	90.438	269.847	9762.339	30.821	0	41.299	0	30.869	0	0	42.388	40.496	-40.47	MWD+IFR1+MS
11600	90.438	269.847	9761.574	31.245	0	41.802	0	31.292	0	0	42.69	40.703	132.148	MWD+IFR1+MS
11700	90.438	269.847	9760.809	31.682	0	42.328	0	31.728	0	0	43.065	40.861	125.52	MWD+IFR1+MS
11800	90.438	269.847	9760.044	32.133	0	42.878	0	32.177	0	0	43.504	40.979	120.068	MWD+IFR1+MS
11900	90.438	269.847	9759.279	32.597	0	43.449	0	32.639	0	0	43.994	41.067	115.779	MWD+IFR1+MS
12000	90.438	269.847	9758.514	33.073	0	44.042	0	33.114	0	0	44.526	41.135	112.442	MWD+IFR1+MS
12100	90.438	269.847	9757.749	33.56	0	44.655	0	33.599	0	0	45.093	41.19	109.828	MWD+IFR1+MS

12200	90.438	269.847	9756.984	34.058	0	45.287	0	34.096	0	0	45.69	41.234	107.752	MWD+IFR1+MS
12300	90.438	269.847	9756.218	34.567	0	45.938	0	34.604	0	0	46.312	41.272	106.074	MWD+IFR1+MS
12400	90.438	269.847	9755.453	35.086	0	46.607	0	35.122	0	0	46.958	41.305	104.695	MWD+IFR1+MS
12500	90.438	269.847	9754.688	35.615	0	47.293	0	35.649	0	0	47.624	41.335	103.545	MWD+IFR1+MS
12600	90.438	269.847	9753.923	36.154	0	47.996	0	36.186	0	0	48.31	41.363	102.572	MWD+IFR1+MS
12700	90.438	269.847	9753.158	36.701	0	48.714	0	36.732	0	0	49.014	41.388	101.738	MWD+IFR1+MS
12800	90.438	269.847	9752.393	37.256	0	49.447	0	37.287	0	0	49.734	41.413	101.015	MWD+IFR1+MS
12900	90.438	269.847	9751.628	37.82	0	50.195	0	37.849	0	0	50.471	41.436	100.383	MWD+IFR1+MS
13000	90.438	269.847	9750.863	38.391	0	50.956	0	38.419	0	0	51.222	41.459	99.825	MWD+IFR1+MS
13100	90.438	269.847	9750.098	38.97	0	51.73	0	38.997	0	0	51.987	41.481	99.328	MWD+IFR1+MS
13200	90.438	269.847	9749.333	39.556	0	52.517	0	39.582	0	0	52.766	41.504	98.883	MWD+IFR1+MS
13300	90.438	269.847	9748.568	40.149	0	53.316	0	40.174	0	0	53.557	41.526	98.482	MWD+IFR1+MS
13400	90.438	269.847	9747.803	40.749	0	54.126	0	40.772	0	0	54.361	41.548	98.119	MWD+IFR1+MS
13500	90.438	269.847	9747.038	41.354	0	54.947	0	41.377	0	0	55.175	41.57	97.788	MWD+IFR1+MS
13600	90.438	269.847	9746.273	41.965	0	55.779	0	41.987	0	0	56.001	41.592	97.484	MWD+IFR1+MS
13700	90.438	269.847	9745.508	42.583	0	56.62	0	42.603	0	0	56.837	41.614	97.206	MWD+IFR1+MS
13800	90.438	269.847	9744.743	43.205	0	57.472	0	43.225	0	0	57.683	41.636	96.948	MWD+IFR1+MS
13900	90.438	269.847	9743.977	43.833	0	58.332	0	43.852	0	0	58.539	41.659	96.71	MWD+IFR1+MS
14000	90.438	269.847	9743.212	44.466	0	59.201	0	44.483	0	0	59.403	41.682	96.489	MWD+IFR1+MS
14100	90.438	269.847	9742.447	45.103	0	60.078	0	45.12	0	0	60.276	41.705	96.283	MWD+IFR1+MS
14200	90.438	269.847	9741.682	45.745	0	60.964	0	45.761	0	0	61.157	41.729	96.09	MWD+IFR1+MS
14300	90.438	269.847	9740.917	46.392	0	61.857	0	46.407	0	0	62.046	41.753	95.909	MWD+IFR1+MS
14400	90.438	269.847	9740.152	47.042	0	62.757	0	47.057	0	0	62.943	41.777	95.74	MWD+IFR1+MS
14500	90.438	269.847	9739.387	47.697	0	63.664	0	47.711	0	0	63.847	41.802	95.58	MWD+IFR1+MS
14600	90.438	269.847	9738.622	48.356	0	64.579	0	48.369	0	0	64.757	41.827	95.43	MWD+IFR1+MS
14700	90.438	269.847	9737.857	49.018	0	65.499	0	49.03	0	0	65.675	41.852	95.288	MWD+IFR1+MS
14800	90.438	269.847	9737.092	49.684	0	66.426	0	49.695	0	0	66.598	41.878	95.153	MWD+IFR1+MS
14900	90.438	269.847	9736.327	50.353	0	67.358	0	50.364	0	0	67.528	41.904	95.026	MWD+IFR1+MS
15000	90.438	269.847	9735.562	51.026	0	68.297	0	51.036	0	0	68.463	41.931	94.905	MWD+IFR1+MS
15100	90.438	269.847	9734.797	51.702	0	69.24	0	51.711	0	0	69.404	41.958	94.789	MWD+IFR1+MS
15200	90.438	269.847	9734.032	52.381	0	70.189	0	52.389	0	0	70.35	41.986	94.68	MWD+IFR1+MS
15300	90.438	269.847	9733.267	53.062	0	71.143	0	53.07	0	0	71.302	42.014	94.575	MWD+IFR1+MS
15400	90.438	269.847	9732.502	53.747	0	72.102	0	53.754	0	0	72.258	42.042	94.475	MWD+IFR1+MS
15500	90.438	269.847	9731.737	54.434	0	73.066	0	54.441	0	0	73.219	42.071	94.38	MWD+IFR1+MS
15600	90.438	269.847	9730.971	55.124	0	74.033	0	55.13	0	0	74.184	42.101	94.289	MWD+IFR1+MS
15700	90.438	269.847	9730.206	55.816	0	75.006	0	55.822	0	0	75.154	42.13	94.201	MWD+IFR1+MS
15800	90.438	269.847	9729.441	56.511	0	75.982	0	56.516	0	0	76.128	42.161	94.117	MWD+IFR1+MS
15900	90.438	269.847	9728.676	57.208	0	76.962	0	57.212	0	0	77.106	42.191	94.037	MWD+IFR1+MS

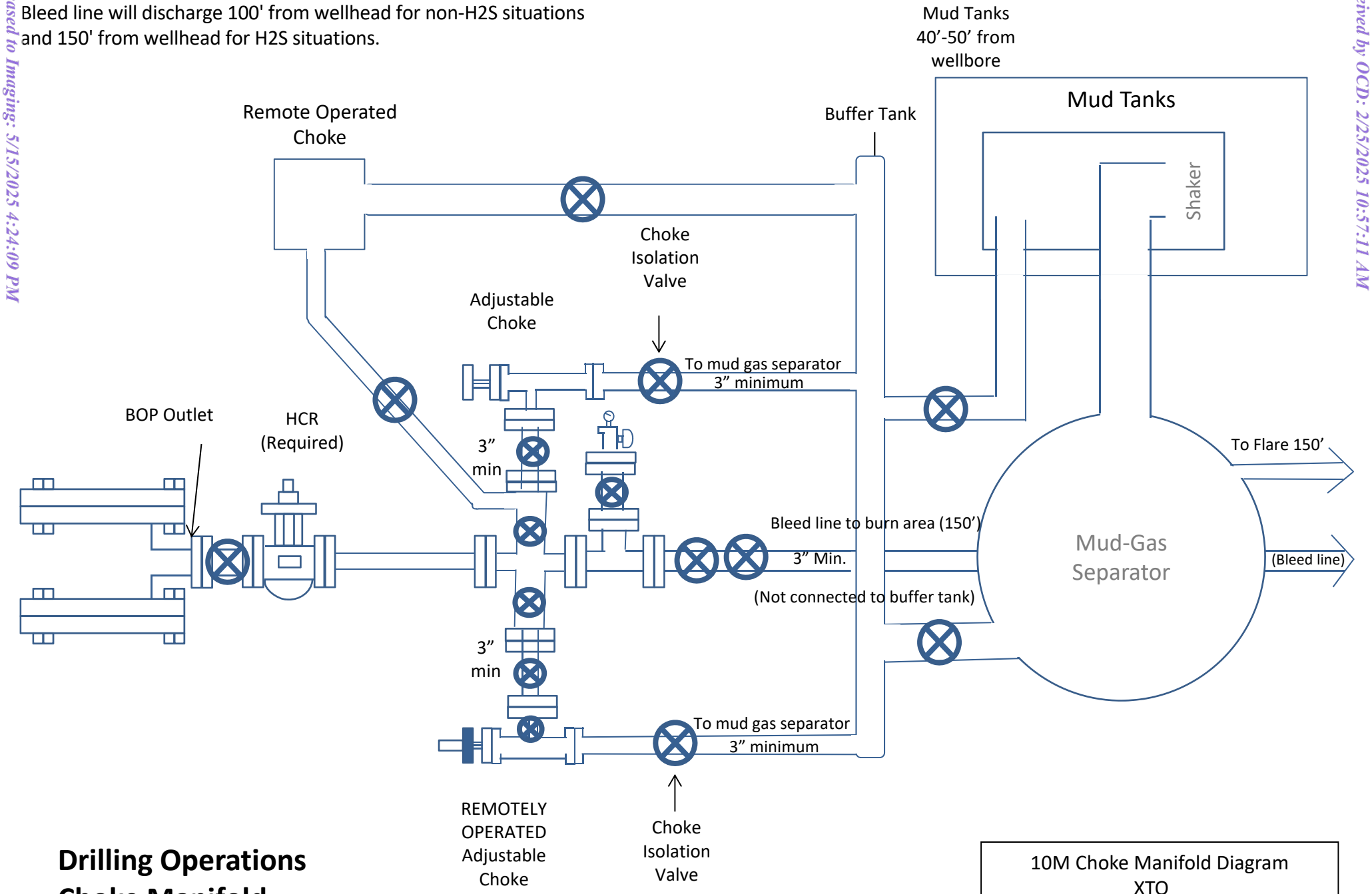
16000	90.438	269.847	9727.911	57.908	0	77.946	0	57.911	0	0	78.088	42.222	93.959	MWD+IFR1+MS
16100	90.438	269.847	9727.146	58.609	0	78.934	0	58.612	0	0	79.074	42.254	93.885	MWD+IFR1+MS
16200	90.438	269.847	9726.381	59.313	0	79.925	0	59.315	0	0	80.063	42.286	93.813	MWD+IFR1+MS
16300	90.438	269.847	9725.616	60.018	0	80.919	0	60.02	0	0	81.056	42.318	93.744	MWD+IFR1+MS
16400	90.438	269.847	9724.851	60.726	0	81.917	0	60.727	0	0	82.052	42.351	93.678	MWD+IFR1+MS
16500	90.438	269.847	9724.086	61.435	0	82.918	0	61.436	0	0	83.051	42.385	93.613	MWD+IFR1+MS
16600	90.438	269.847	9723.321	62.146	0	83.922	0	62.147	0	0	84.053	42.419	93.551	MWD+IFR1+MS
16700	90.438	269.847	9722.556	62.859	0	84.929	0	62.859	0	0	85.058	42.453	93.492	MWD+IFR1+MS
16800	90.438	269.847	9721.791	63.574	0	85.939	0	63.574	0	0	86.067	42.488	93.434	MWD+IFR1+MS
16900	90.438	269.847	9721.026	64.29	0	86.952	0	64.29	0	0	87.077	42.523	93.378	MWD+IFR1+MS
17000	90.438	269.847	9720.261	65.008	0	87.967	0	65.007	0	0	88.091	42.559	93.324	MWD+IFR1+MS
17100	90.438	269.847	9719.496	65.728	0	88.985	0	65.726	0	0	89.107	42.595	93.271	MWD+IFR1+MS
17200	90.438	269.847	9718.73	66.449	0	90.005	0	66.446	0	0	90.126	42.631	93.22	MWD+IFR1+MS
17300	90.438	269.847	9717.965	67.171	0	91.027	0	67.168	0	0	91.147	42.669	93.171	MWD+IFR1+MS
17400	90.438	269.847	9717.2	67.895	0	92.052	0	67.892	0	0	92.17	42.706	93.123	MWD+IFR1+MS
17500	90.438	269.847	9716.435	68.62	0	93.079	0	68.616	0	0	93.196	42.744	93.077	MWD+IFR1+MS
17600	90.438	269.847	9715.67	69.346	0	94.108	0	69.342	0	0	94.224	42.782	93.032	MWD+IFR1+MS
17700	90.438	269.847	9714.905	70.074	0	95.14	0	70.07	0	0	95.254	42.821	92.988	MWD+IFR1+MS
17800	90.438	269.847	9714.14	70.803	0	96.173	0	70.798	0	0	96.286	42.861	92.946	MWD+IFR1+MS
17900	90.438	269.847	9713.375	71.533	0	97.208	0	71.528	0	0	97.32	42.9	92.904	MWD+IFR1+MS
18000	90.438	269.847	9712.61	72.264	0	98.246	0	72.258	0	0	98.356	42.941	92.864	MWD+IFR1+MS
18100	90.438	269.847	9711.845	72.996	0	99.285	0	72.99	0	0	99.394	42.981	92.825	MWD+IFR1+MS
18200	90.438	269.847	9711.08	73.73	0	100.325	0	73.723	0	0	100.433	43.022	92.787	MWD+IFR1+MS
18300	90.438	269.847	9710.315	74.464	0	101.368	0	74.458	0	0	101.475	43.064	92.75	MWD+IFR1+MS
18400	90.438	269.847	9709.55	75.199	0	102.412	0	75.193	0	0	102.518	43.106	92.714	MWD+IFR1+MS
18500	90.438	269.847	9708.785	75.936	0	103.458	0	75.929	0	0	103.562	43.148	92.678	MWD+IFR1+MS
18600	90.438	269.847	9708.02	76.673	0	104.505	0	76.666	0	0	104.608	43.191	92.644	MWD+IFR1+MS
18700	90.438	269.847	9707.255	77.411	0	105.554	0	77.404	0	0	105.656	43.235	92.611	MWD+IFR1+MS
18800	90.438	269.847	9706.489	78.151	0	106.604	0	78.143	0	0	106.705	43.279	92.578	MWD+IFR1+MS
18900	90.438	269.847	9705.724	78.891	0	107.656	0	78.882	0	0	107.756	43.323	92.546	MWD+IFR1+MS
19000	90.438	269.847	9704.959	79.632	0	108.709	0	79.623	0	0	108.808	43.367	92.515	MWD+IFR1+MS
19100	90.438	269.847	9704.194	80.374	0	109.764	0	80.365	0	0	109.862	43.413	92.484	MWD+IFR1+MS
19200	90.438	269.847	9703.429	81.116	0	110.819	0	81.107	0	0	110.917	43.458	92.455	MWD+IFR1+MS
19300	90.438	269.847	9702.664	81.86	0	111.876	0	81.85	0	0	111.973	43.504	92.426	MWD+IFR1+MS
19400	90.438	269.847	9701.899	82.604	0	112.935	0	82.594	0	0	113.03	43.55	92.397	MWD+IFR1+MS
19500	90.438	269.847	9701.134	83.349	0	113.994	0	83.338	0	0	114.089	43.597	92.37	MWD+IFR1+MS
19600	90.438	269.847	9700.369	84.094	0	115.055	0	84.084	0	0	115.148	43.645	92.343	MWD+IFR1+MS
19700	90.438	269.847	9699.604	84.84	0	116.117	0	84.83	0	0	116.209	43.692	92.316	MWD+IFR1+MS

19800	90.438	269.847	9698.839	85.587	0	117.18	0	85.577	0	0	117.272	43.74	92.29	MWD+IFR1+MS
19909.648	90.438	269.847	9698	86.408	0	118.347	0	86.397	0	0	118.438	43.794	92.262	MWD+IFR1+MS
19959.655	90.438	269.847	9697.617	86.781	0	118.879	0	86.77	0	0	118.969	43.818	92.25	MWD+IFR1+MS

Plan Targets	James Ranch Unit Apache 802H

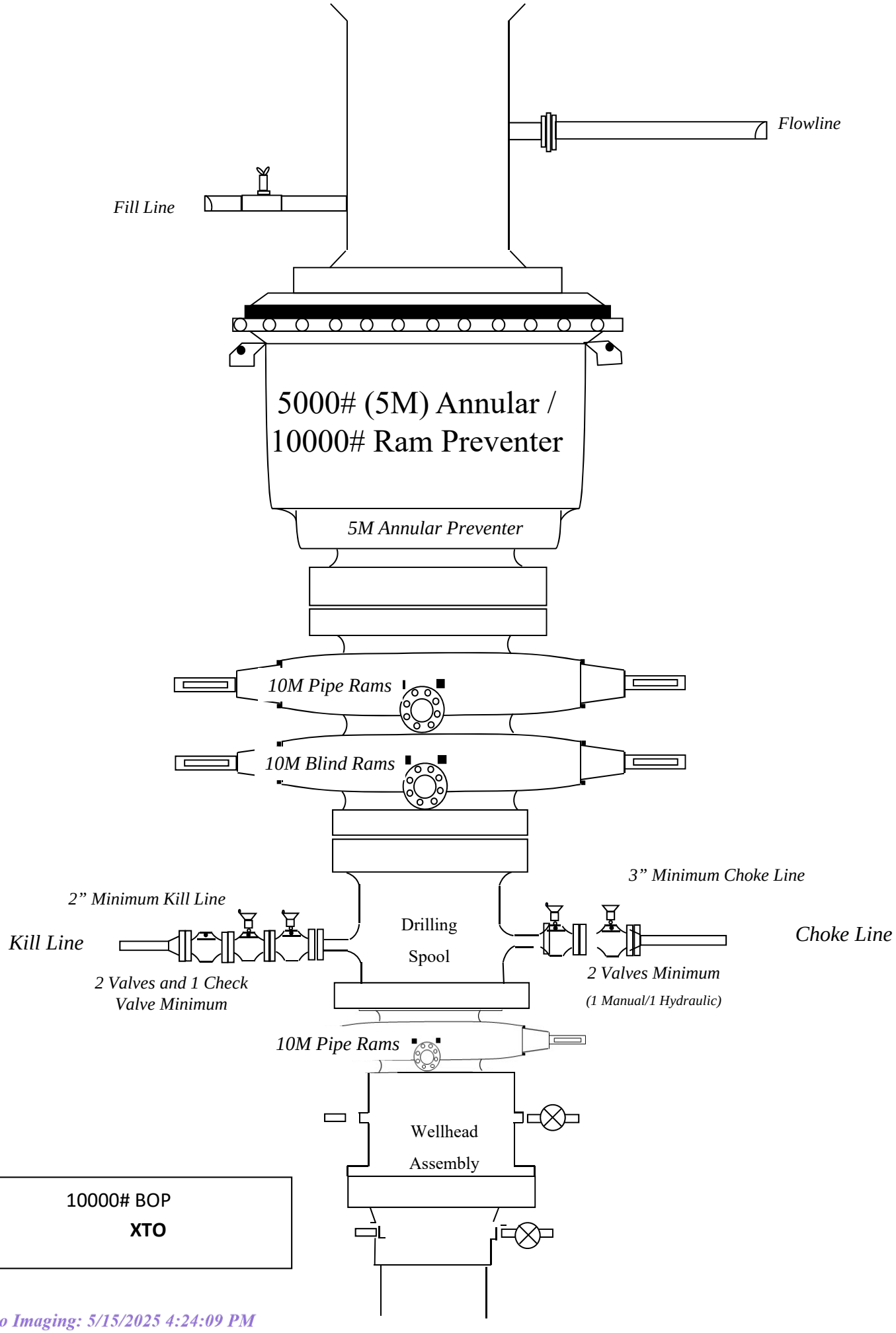
Target Name	**Measured Depth (ft)**	**Grid Northing (ft)**	**Grid Easting (ft)**	**TVD MSL (ft)**	**Target Shape**
FTP 17	10108.42	505880.7	656553.8	6373	CIRCLE
NFTP 17	10142.48	505880.7	656753.8	6373	CIRCLE
LTP 17	20098.76	505853.2	646285.6	6300	CIRCLE
BHL 17	20148.76	505853.1	646235.6	6300	CIRCLE

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



10000# BOP

XTO

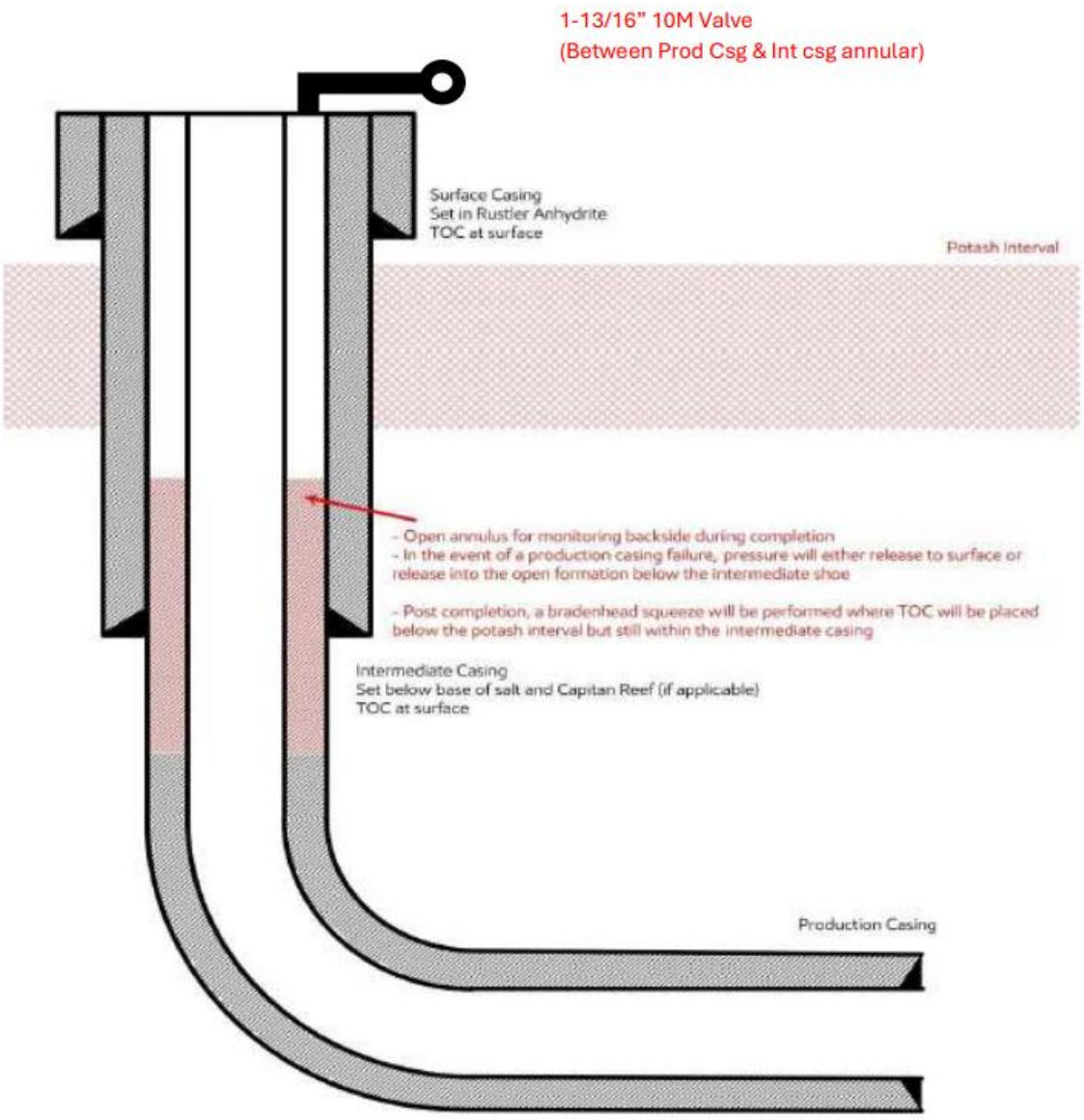
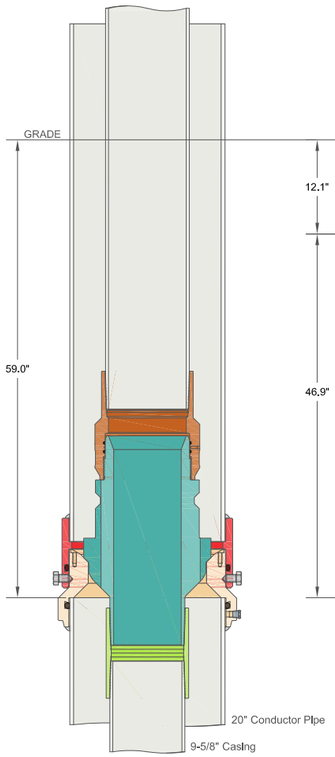
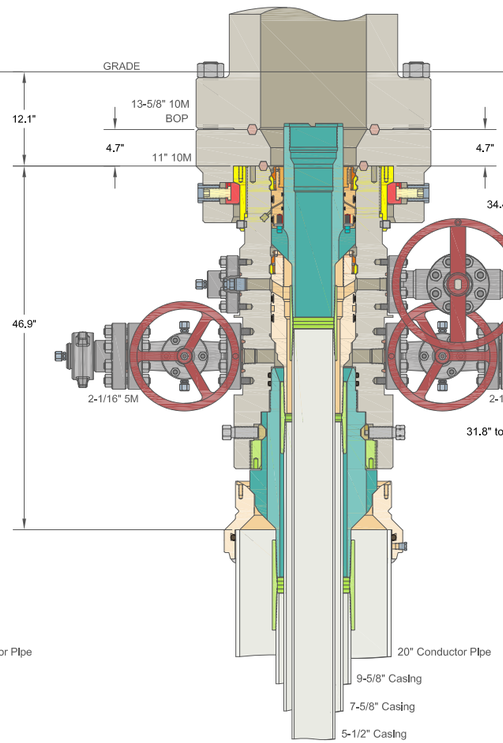


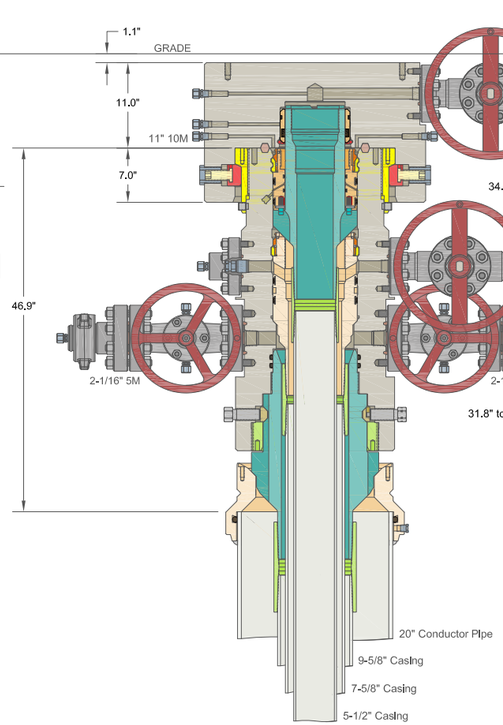
Figure B – 3 String Design – Open Production Casing Annulus (Updated May 2024):

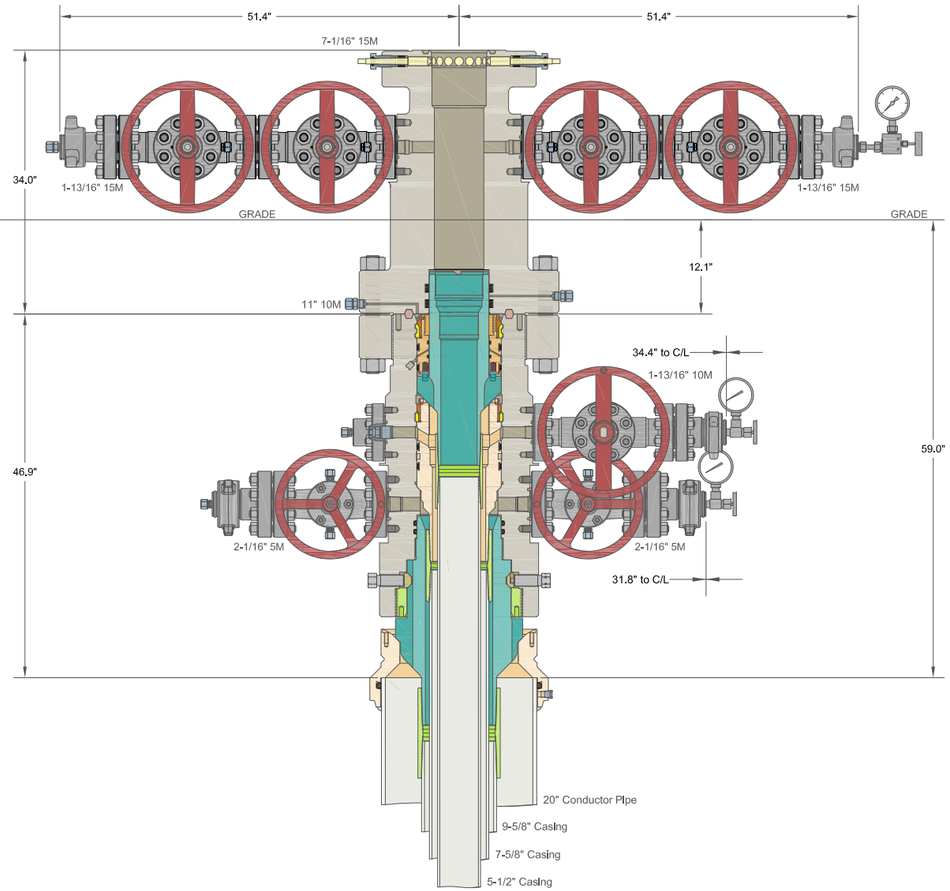
XTO is aware of the R-111-Q update & will comply with these requirements including (but not limited to):

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 event of production casing failure
3. TOC in the annulus between intermediate & production casing string shall stand uncemented at least 500 feet below the intermediate casing shoe
4. Bradenhead squeeze to be completed within 180 days after hydraulic frac operations have been concluded to ensure at least a 500 feet tie-back has been established inside salt string but with top below MB 126









ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

XTO ENERGY INC
DELAWARE BASIN

20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-CFL-R-DBLO Wellhead
With 11" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head
And 9-5/8", 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers

DRAWN	VJK	31MAR22
APPRV		

DRAWING NO. HBE0000479

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: XTO PERMIAN OPERATING, LLC **OGRID:** 373075 **Date:** 08/19/2024

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

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	3 yr Anticipated decline Oil BBL/D	Anticipated Gas MCF/D	3 yr anticipated decline Gas MCF/D	Anticipated Produced Water BBL/D	3 yr anticipated decline Water BBL/D
James Ranch Unit Apache 149H	TBD	13 22S 30E	507 FSL, 864 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 150H	TBD	13 22S 30E	477 FSL, 863 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 142H	TBD	24 22S 30E	1524 FNL, 829 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 135H	TBD	24 22S 30E	2228 FSL, 871 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 136H	TBD	24 22S 30E	2227 FSL, 971 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 137H	TBD	24 22S 30E	2257 FSL, 971 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 138H	TBD	24 22S 30E	2167 FSL, 971 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 139H	TBD	24 22S 30E	2258 FSL, 871 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 140H	TBD	24 22S 30E	2288 FSL, 871 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 141H	TBD	24 22S 30E	2197 FSL, 971 FEL	600	100	2500	1500	5000	200

James Ranch Unit Apache 131H	TBD	24 22S 30E	419 FSL, 890 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 132H	TBD	24 22S 30E	389 FSL, 889 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 133H	TBD	24 22S 30E	359 FSL, 889 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 134H	TBD	24 22S 30E	329 FSL, 889 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 111H	TBD	13 22S 30E	2576 FSL, 867 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 112H	TBD	13 22S 30E	2516 FSL, 868 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 113H	TBD	13 22S 30E	416 FSL, 962 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 114H	TBD	24 22S 30E	350 FNL, 949 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 115H	TBD	24 22S 30E	408 FNL, 848 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 701H	TBD	13 22S 30E	2577 FSL, 967 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 702H	TBD	13 22S 30E	2517 FSL, 968 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 703H	TBD	13 22S 30E	2486 FSL, 868 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 704H	TBD	13 22S 30E	2547 FSL, 967 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 705H	TBD	13 22S 30E	2487 FSL, 968 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 706H	TBD	13 22S 30E	2456 FSL, 869 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 707H	TBD	24 22S 30E	320 FNL, 950 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 708H	TBD	24 22S 30E	380 FNL, 949 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 709H	TBD	24 22S 30E	348 FNL, 849 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 710H	TBD	24 22S 30E	410 FNL, 948 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 711H	TBD	24 22S 30E	318 FNL, 850 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 801H	TBD	13 22S 30E	2546 FSL, 867 FEL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 802H	TBD	13 22S 30E	446 FSL, 963 FEL	2000	100	6000	1000	7000	300

James Ranch Unit Apache 803H	TBD	13 22S 30E	476 FSL, 963 FEL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 804H	TBD	24 22S 30E	378 FNL, 849 FEL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 901H	TBD	13 22S 30E	2457 FSL, 969 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 902H	TBD	13 22S 30E	506 FSL, 964 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 903H	TBD	13 22S 30E	386 FSL, 962 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 904H	TBD	24 22S 30E	440 FNL, 948 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 906H	TBD	24 22S 30E	2287 FSL, 971 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 805H	TBD	24 22S 30E	909 FEL, 1526 FNL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 116H	TBD	24 22S 30E	909 FEL, 1556 FNL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 905H	TBD	24 22S 30E	908 FEL, 1616 FNL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 806H	TBD	24 22S 30E	906 FEL, 1646 FNL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 117H	TBD	24 22S 30E	907 FEL, 1676 FNL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 907H	TBD	24 22S 30E	930 FEL, 389 FSL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 807H	TBD	24 22S 30E	929 FEL, 359 FSL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 808H	TBD	24 22S 30E	929 FEL, 329 FSL	2000	100	6000	1000	7000	300

IV. Central Delivery Point Name: Longhorn Compressor Station [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
James Ranch Unit Apache 149H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 150H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 142H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 135H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 136H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 137H	TBD	TBD	TBD	TBD	TBD	TBD

James Ranch Unit Apache 138H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 139H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 140H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 141H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 131H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 132H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 133H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 134H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 111H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 112H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 113H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 114H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 115H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 701H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 702H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 703H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 704H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 705H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 706H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 707H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 708H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 709H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 710H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 711H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 801H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 802H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 803H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 804H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 901H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 902H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 903H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 904H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 906H	TBD	TBD	TBD	TBD	TBD	TBD

James Ranch Unit Apache 805H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 116H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 905H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 806H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 117H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 907H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 807H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 808H	TBD	TBD	TBD	TBD	TBD	TBD

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

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

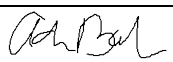
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

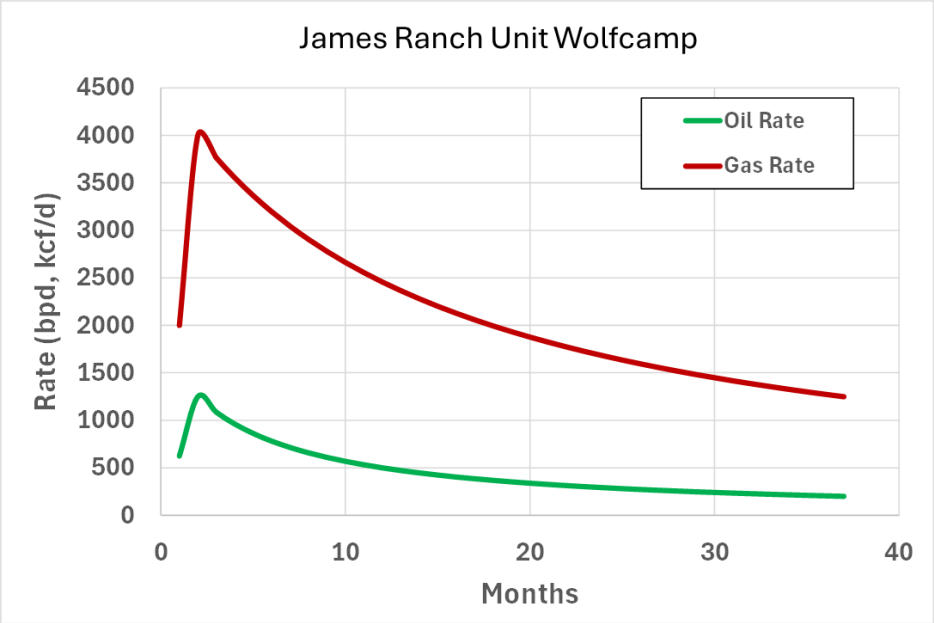
Signature:	
Printed Name:	Adrian Baker
Title:	Environmental and Regulatory Advisor
E-mail Address:	adrian.baker@exxonmobil.com
Date:	9/26/24
Phone:	4322363808

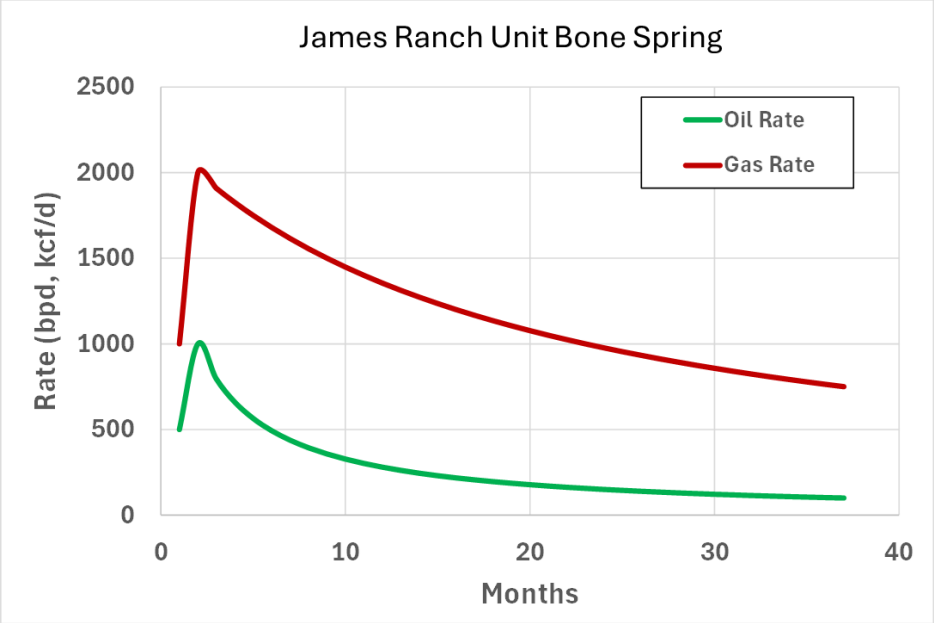
OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

JRU Decline Curves – Wolfcamp and Bone Spring





VI. Separation Equipment:

XTO Permian Operating LLC. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. XTO utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.

VII. Operational Practices

XTO Permian Operating LLC will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, XTO will utilize flares to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, XTO will employ best management practices to minimize or reduce venting to the extent possible.

- During completions operations, XTO will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically in-feasible, flares will be used to control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, XTO Permian Operating LLCwill turn operations to onsite separation vessels and flow to the gathering pipeline.

- During production operations, XTO Permian Operating LLC will take every practical effort to minimize waste of natural gas through venting and flaring by:

    - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
    - Utilizing a closed-loop capture system to collect, and route produced gas to sales line via low pressure compression, or to a flare/combustor
    - Flaring in lieu of venting, where technically feasible
    - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
    - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
    - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
    - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications

- Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible.

VIII. Best Management Practices during Maintenance

XTO Permian Operating LLC. will utilize best management practices to minimize venting during active and planned maintenance activities. XTO is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high-pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. XTO will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.

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

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

Background

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

Supporting Documentation

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

Figure 1: Winch System attached to BOP Stack

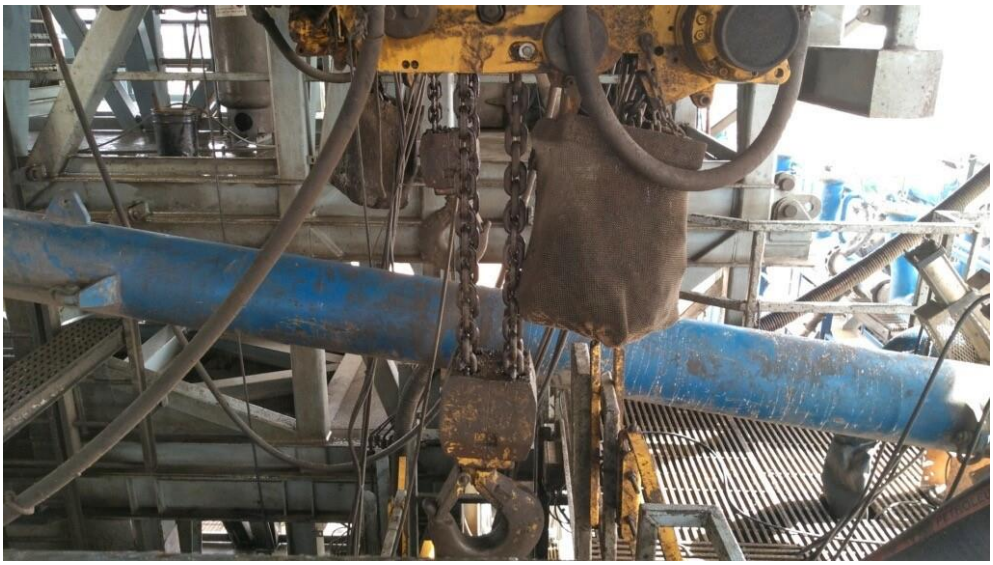


Figure 2: BOP Winch System

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

62 API STANDARD 53

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

Component to be Pressure Tested	Pressure Test—Low Pressure[ac] psig (MPa)	Pressure Test—High Pressure[ac]	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer[b]	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers[bd]	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes[e]	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes[e]	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

[a] Pressure test evaluation periods shall be a minimum of five minutes.
No visible leaks.
The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

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

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

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

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

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

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

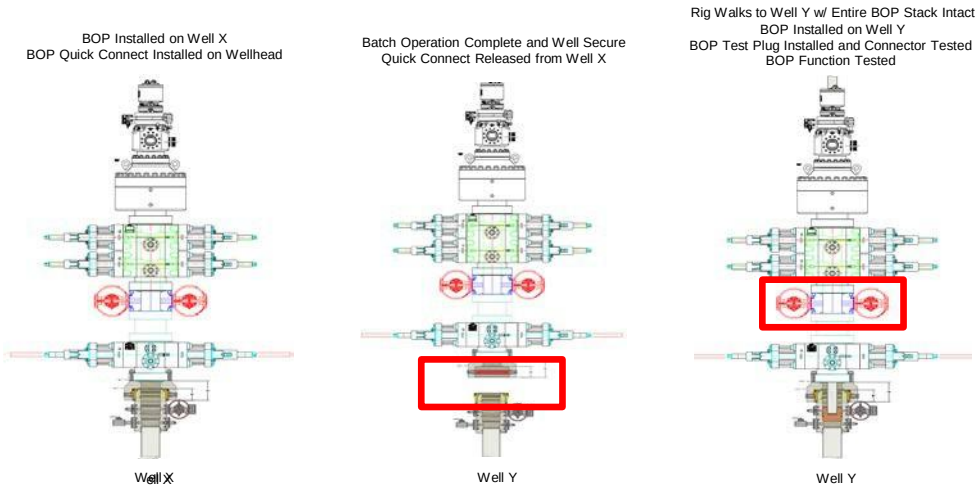
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

Procedures

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

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

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



Summary

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

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

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

1. After a full BOP test is conducted on the first well on the pad.

2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.

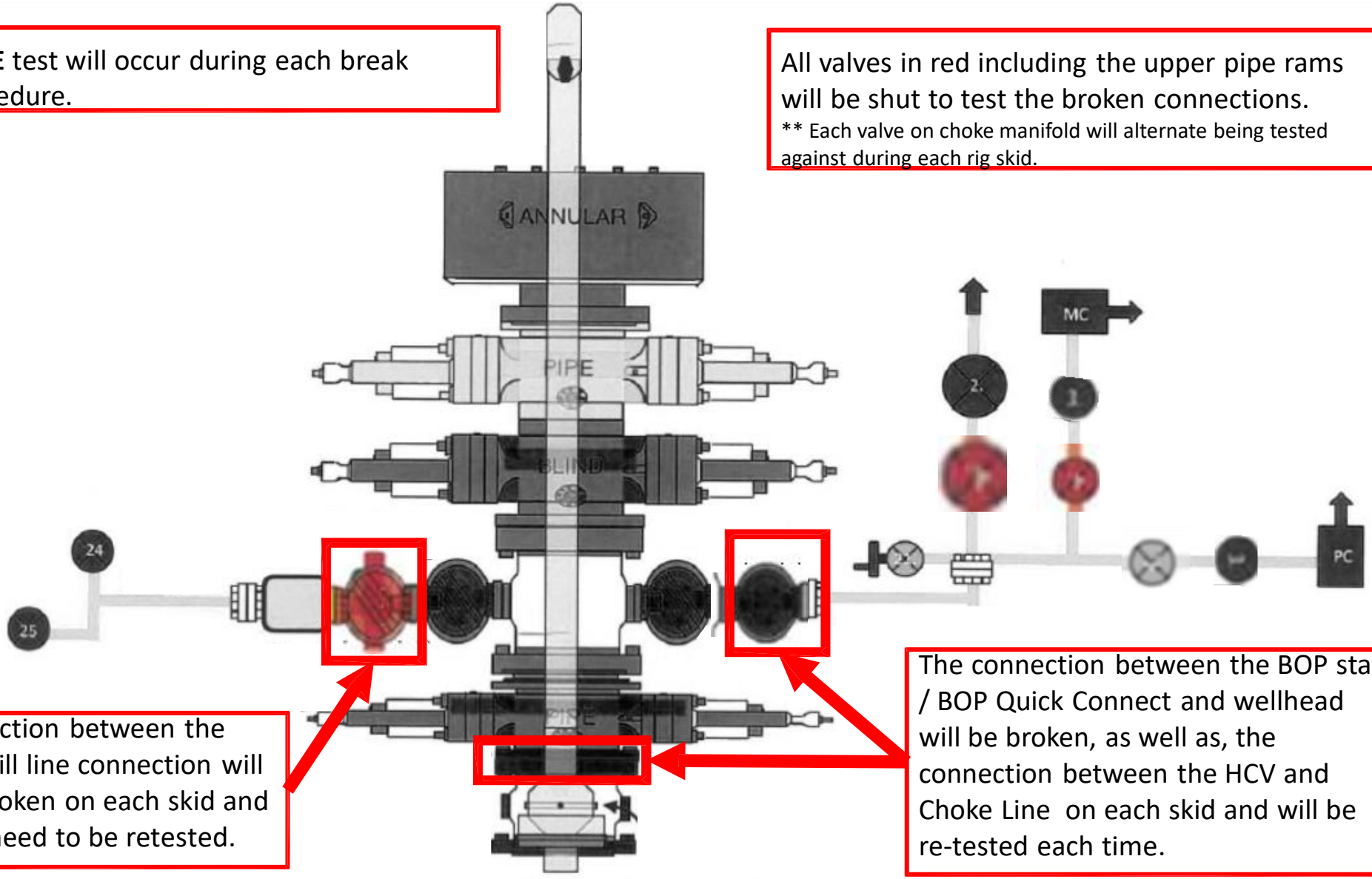
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.

4. Full BOP test will be required prior to drilling the production hole.

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

All valves in red including the upper pipe rams will be shut to test the broken connections.

** Each valve on choke manifold will alternate being tested against during each rig skid.



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

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

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

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

CONDITIONS

Action 435120

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 435120
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Operator must comply with all of the R-111-Q requirements.	5/15/2025
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	5/15/2025