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

Sundry Print Report

04/04/2024

Well Name: POKER LAKE UNIT 19 DTD	**Well Location:** T24S / R30E / SEC 19 / NWNW /	**County or Parish/State:**
Well Number: 110H	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMNM002860	**Unit or CA Name:**	**Unit or CA Number:** NMNM71016X
US Well Number: 3001553760	**Well Status:** Approved Application for Permit to Drill	**Operator:** XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2778059

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/05/2024

Time Sundry Submitted: 06:08

Date proposed operation will begin: 04/02/2024

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, casing sizes, cement, proposed total depth, and formation (pool). FROM: TO: SHL: 1231' FNL & 339' FWL of Section 19-T24S-R30E 1159' FNL & 829' FWL of Section 19-T24S-R30E FTP: 100' FSL & 670' FWL of Section 18-T24S-R30E 100' FNL & 521' FWL of Section 19-T24S-R30E LTP: 100' FNL & 670' FWL of Section 6-T24S-R30E 330' FSL & 521' FWL of Section 31-T25S-R30E BHL: 50' FNL & 670' FWL of Section 6-T24S-R30E 230' FSL & 521' FWL of Section 31-T24S-R30E Proposed total depth will change from 25990' MD; 9850' TVD (Bone Springs) to 26578' MD; TVD 11241' (Wolfcamp). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Drilling Plan, MBS, BOP Variance, Well Control Plan

NOI Attachments

Procedure Description

Well_Plan_Report____Poker_Lake_Unit_19_DTD_South_110H_20240305180731.pdf

POKER_LAKE_UNIT_19_DTD_110H_C_102_FINAL_20240305180726.pdf

PLU_19_DTD_110H_Pad_A_Drilling_Plan_20240305180724.pdf

Well_Control_Plan_w_CFR_43_3172_20240305180724.pdf

3_String_Bighole_SDT_2856_1_20240305180726.pdf

BOP_Variance_new_Language_BOP_BTV_20240305180725.pdf

Well Name: POKER LAKE UNIT 19 DTD

Well Location: T24S / R30E / SEC 19 / NWNW /

County or Parish/State:

Well Number: 110H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM002860

Unit or CA Name:

Unit or CA Number: NMNM71016X

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Well Status: Approved Application for Permit to Drill

Operator: XTO PERMIAN OPERATING LLC

Conditions of Approval

Additional

Sec19_24S_30E_NMP_Sundry_2778059_Poker_Lake_Unit_19_DTD_110H_COAs_20240404125556.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: JEAN COOPER

Signed on: MAR 05, 2024 06:07 PM

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Analyst

Street Address: 6401 HOLIDAY HILL ROAD BLDG 5

City: MIDLAND **State:** TX

Phone: (432) 620-6700

Email address: JEAN.COOPER@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: 04/04/2024

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

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

10. Field and Pool or Exploratory Area

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

11. Country or Parish, State

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

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

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

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

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

Additional Information

Additional Remarks

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

Location of Well

0. SHL: NWNW / 1231 FNL / 339 FWL / TWSP: 24S / RANGE: 30E / SECTION: 19 / LAT: 32.206801 / LONG: -103.928408 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 330 FSL / 670 FWL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.2254 / LONG: -103.92736 (TVD: 9850 feet, MD: 15600 feet)

PPP: SWNW / 330 FSL / 670 FWL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.23241 / LONG: -103.92736 (TVD: 9850 feet, MD: 18300 feet)

PPP: NWSW / 330 FSL / 670 FWL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.22903 / LONG: -103.92736 (TVD: 9850 feet, MD: 16900 feet)

PPP: SWSW / 330 FSL / 670 FWL / TWSP: 24S / RANGE: 30E / SECTION: 6 / LAT: 32.23996 / LONG: -103.92736 (TVD: 9850 feet, MD: 20900 feet)

PPP: SWSW / 100 FSL / 670 FWL / TWSP: 24S / RANGE: 30E / SECTION: 18 / LAT: 32.210472 / LONG: -103.927347 (TVD: 9850 feet, MD: 10300 feet)

BHL: NWNW / 50 FNL / 670 FWL / TWSP: 24S / RANGE: 30E / SECTION: 6 / LAT: 32.253811 / LONG: -103.927398 (TVD: 9850 feet, MD: 25990 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Poker Lake Unit 19 DTD 110H
LOCATION:	Sec 19-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2778059** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

H_2S	○ No	○ Yes		
Potash / WIPP	○ None	○ Secretary	○ R-111-P	☐ WIPP
Cave / Karst	○ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	○ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☑ Cont. Squeeze	☑ EchoMeter	☐ DV Tool
Special Req	☑ Break Testing	☐ Water Disposal	☐ COM	☑ Unit
Variance	☑ Flex Hose	☑ Casing Clearance	☐ Pilot Hole	☐ Capitan Reef
Variance	☐ Four-String	☑ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
☐ **Batch APD / Sundry**				

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 430 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. ***Set depth adjusted per BLM geologist.***

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

cement)

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 13-3/8" X 9-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the 9-5/8" 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 between second stage BH and top out.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

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

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

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

D. SPECIAL REQUIREMENT (S)

Unit Wells

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

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months.

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 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 Onshore Oil and Gas Order No. 2.
- 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.

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)

Eddy County (API No. / US Well No. contains 30-015-#####)
Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@blm.gov; (575) 361-2822

Lea County (API No. / US Well No. contains 30-025-#####)
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240; (575) 689-5981

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
      - Notify the BLM when moving in and removing the Spudder Rig.
      - 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.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 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. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

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, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity 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-P 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 part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
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:
    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. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
    e. 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.
    a. 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).
    b. 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.)

c. 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 part 3170 Subpart 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 water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
d. 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.
e. The results of the test shall be reported to the appropriate BLM office.
f. 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.
g. 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.
h. 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 part 3170 Subpart 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.

Well Plan Report - Poker Lake Unit 19 DTD South 110H

Measured Depth:	26578.02 ft
TVD RKB:	11241.00 ft
Location	
Cartographic Reference System:	New Mexico East - NAD 27
Northing:	439225.00 ft
Easting:	625882.80 ft
RKB:	3178.00 ft
Ground Level:	3146.00 ft
North Reference:	Grid
Convergence Angle:	0.22 Deg

Plan Sections Poker Lake Unit 19 DTD South 110H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
1723.51	12.47	343.41	1718.60	64.77	-19.30	2.00	0.00	2.00	
6191.72	12.47	343.41	6081.40	989.43	-294.80	0.00	0.00	0.00	
6815.23	0.00	0.00	6700.00	1054.20	-314.10	-2.00	0.00	2.00	
10640.03	0.00	0.00	10524.80	1054.20	-314.10	0.00	0.00	0.00	
11765.03	90.00	179.72	11241.00	338.01	-310.64	8.00	0.00	8.00	
26478.02	90.00	179.72	11241.00	-14374.81	-239.51	0.00	0.00	0.00	LTP 1
26578.02	90.00	179.72	11241.00	-14474.80	-239.02	0.00	0.00	0.00	BHL 1

Position Uncertainty Poker Lake Unit 19 DTD South 110H

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

Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	of Bias (ft)	Error (ft)	Error (ft)	Azimuth (°)	Used
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.309	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.346	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.373	0.000	0.000	2.503	1.701	127.419	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.404	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.441	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.482	0.000	0.000	3.642	2.775	128.423	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.502	0.000	2.527	0.000	0.000	4.014	3.133	128.602	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.058	0.000	3.865	0.000	2.577	0.000	0.000	4.384	3.491	128.744	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.419	0.000	4.228	0.000	2.629	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	343.409	1199.980	4.702	0.000	4.834	0.000	2.685	0.000	0.000	5.232	4.257	122.266	MWD+IFR1+MS
1300.000	4.000	343.409	1299.838	5.538	0.000	5.177	0.000	2.745	0.000	0.000	5.926	4.737	109.334	MWD+IFR1+MS
1400.000	6.000	343.409	1399.452	6.277	0.000	5.522	0.000	2.810	0.000	0.000	6.618	5.129	102.684	MWD+IFR1+MS
1500.000	8.000	343.409	1498.702	6.948	0.000	5.867	0.000	2.882	0.000	0.000	7.278	5.491	99.042	MWD+IFR1+MS
1600.000	10.000	343.409	1597.465	7.569	0.000	6.213	0.000	2.965	0.000	0.000	7.904	5.842	96.831	MWD+IFR1+MS
1700.000	12.000	343.409	1695.623	8.150	0.000	6.562	0.000	3.059	0.000	0.000	8.498	6.189	95.380	MWD+IFR1+MS
1723.510	12.470	343.409	1718.599	8.211	0.000	6.638	0.000	3.070	0.000	0.000	8.568	6.270	95.332	MWD+IFR1+MS
1800.000	12.470	343.409	1793.285	8.427	0.000	6.890	0.000	3.129	0.000	0.000	8.778	6.531	95.398	MWD+IFR1+MS
1900.000	12.470	343.409	1890.925	8.723	0.000	7.239	0.000	3.210	0.000	0.000	9.071	6.882	95.757	MWD+IFR1+MS
2000.000	12.470	343.409	1988.566	9.030	0.000	7.597	0.000	3.296	0.000	0.000	9.377	7.237	96.196	MWD+IFR1+MS
2100.000	12.470	343.409	2086.207	9.344	0.000	7.956	0.000	3.385	0.000	0.000	9.689	7.594	96.620	MWD+IFR1+MS
2200.000	12.470	343.409	2183.848	9.662	0.000	8.317	0.000	3.477	0.000	0.000	10.006	7.954	97.031	MWD+IFR1+MS
2300.000	12.470	343.409	2281.489	9.986	0.000	8.680	0.000	3.572	0.000	0.000	10.328	8.314	97.427	MWD+IFR1+MS
2400.000	12.470	343.409	2379.130	10.315	0.000	9.044	0.000	3.670	0.000	0.000	10.654	8.676	97.809	MWD+IFR1+MS
2500.000	12.470	343.409	2476.770	10.648	0.000	9.410	0.000	3.769	0.000	0.000	10.984	9.039	98.179	MWD+IFR1+MS
2600.000	12.470	343.409	2574.411	10.984	0.000	9.776	0.000	3.872	0.000	0.000	11.317	9.404	98.536	MWD+IFR1+MS
2700.000	12.470	343.409	2672.052	11.324	0.000	10.144	0.000	3.976	0.000	0.000	11.653	9.769	98.881	MWD+IFR1+MS
2800.000	12.470	343.409	2769.693	11.667	0.000	10.512	0.000	4.082	0.000	0.000	11.992	10.135	99.214	MWD+IFR1+MS
2900.000	12.470	343.409	2867.334	12.013	0.000	10.881	0.000	4.191	0.000	0.000	12.334	10.502	99.535	MWD+IFR1+MS

3000.000	12.470	343.409	2964.975	12.361	0.000	11.251	0.000	4.301	0.000	0.000	12.678	10.870	99.846	MWD+IFR1+MS
3100.000	12.470	343.409	3062.616	12.712	0.000	11.622	0.000	4.414	0.000	0.000	13.024	11.238	100.145	MWD+IFR1+MS
3200.000	12.470	343.409	3160.256	13.065	0.000	11.993	0.000	4.528	0.000	0.000	13.373	11.607	100.435	MWD+IFR1+MS
3300.000	12.470	343.409	3257.897	13.420	0.000	12.365	0.000	4.643	0.000	0.000	13.723	11.976	100.715	MWD+IFR1+MS
3400.000	12.470	343.409	3355.538	13.777	0.000	12.737	0.000	4.761	0.000	0.000	14.075	12.346	100.985	MWD+IFR1+MS
3500.000	12.470	343.409	3453.179	14.136	0.000	13.109	0.000	4.880	0.000	0.000	14.429	12.717	101.245	MWD+IFR1+MS
3600.000	12.470	343.409	3550.820	14.496	0.000	13.482	0.000	5.001	0.000	0.000	14.784	13.088	101.497	MWD+IFR1+MS
3700.000	12.470	343.409	3648.461	14.858	0.000	13.855	0.000	5.123	0.000	0.000	15.141	13.459	101.740	MWD+IFR1+MS
3800.000	12.470	343.409	3746.102	15.221	0.000	14.229	0.000	5.247	0.000	0.000	15.499	13.830	101.975	MWD+IFR1+MS
3900.000	12.470	343.409	3843.742	15.586	0.000	14.603	0.000	5.373	0.000	0.000	15.858	14.202	102.202	MWD+IFR1+MS
4000.000	12.470	343.409	3941.383	15.952	0.000	14.977	0.000	5.500	0.000	0.000	16.218	14.574	102.421	MWD+IFR1+MS
4100.000	12.470	343.409	4039.024	16.318	0.000	15.352	0.000	5.629	0.000	0.000	16.579	14.947	102.632	MWD+IFR1+MS
4200.000	12.470	343.409	4136.665	16.686	0.000	15.727	0.000	5.760	0.000	0.000	16.941	15.320	102.836	MWD+IFR1+MS
4300.000	12.470	343.409	4234.306	17.055	0.000	16.102	0.000	5.892	0.000	0.000	17.304	15.693	103.033	MWD+IFR1+MS
4400.000	12.470	343.409	4331.947	17.425	0.000	16.477	0.000	6.025	0.000	0.000	17.668	16.066	103.224	MWD+IFR1+MS
4500.000	12.470	343.409	4429.587	17.796	0.000	16.852	0.000	6.161	0.000	0.000	18.033	16.440	103.407	MWD+IFR1+MS
4600.000	12.470	343.409	4527.228	18.167	0.000	17.228	0.000	6.298	0.000	0.000	18.399	16.814	103.585	MWD+IFR1+MS
4700.000	12.470	343.409	4624.869	18.539	0.000	17.604	0.000	6.436	0.000	0.000	18.765	17.187	103.756	MWD+IFR1+MS
4800.000	12.470	343.409	4722.510	18.912	0.000	17.980	0.000	6.576	0.000	0.000	19.132	17.562	103.921	MWD+IFR1+MS
4900.000	12.470	343.409	4820.151	19.286	0.000	18.356	0.000	6.718	0.000	0.000	19.499	17.936	104.081	MWD+IFR1+MS
5000.000	12.470	343.409	4917.792	19.660	0.000	18.732	0.000	6.862	0.000	0.000	19.868	18.311	104.235	MWD+IFR1+MS
5100.000	12.470	343.409	5015.433	20.035	0.000	19.108	0.000	7.007	0.000	0.000	20.236	18.685	104.383	MWD+IFR1+MS
5200.000	12.470	343.409	5113.073	20.410	0.000	19.485	0.000	7.154	0.000	0.000	20.605	19.060	104.526	MWD+IFR1+MS
5300.000	12.470	343.409	5210.714	20.786	0.000	19.862	0.000	7.303	0.000	0.000	20.975	19.435	104.665	MWD+IFR1+MS
5400.000	12.470	343.409	5308.355	21.162	0.000	20.238	0.000	7.453	0.000	0.000	21.346	19.810	104.798	MWD+IFR1+MS
5500.000	12.470	343.409	5405.996	21.539	0.000	20.615	0.000	7.605	0.000	0.000	21.716	20.186	104.926	MWD+IFR1+MS
5600.000	12.470	343.409	5503.637	21.917	0.000	20.992	0.000	7.759	0.000	0.000	22.087	20.561	105.050	MWD+IFR1+MS
5700.000	12.470	343.409	5601.278	22.294	0.000	21.369	0.000	7.915	0.000	0.000	22.459	20.937	105.169	MWD+IFR1+MS
5800.000	12.470	343.409	5698.918	22.673	0.000	21.746	0.000	8.073	0.000	0.000	22.831	21.312	105.283	MWD+IFR1+MS
5900.000	12.470	343.409	5796.559	23.051	0.000	22.124	0.000	8.232	0.000	0.000	23.203	21.688	105.394	MWD+IFR1+MS
6000.000	12.470	343.409	5894.200	23.430	0.000	22.501	0.000	8.394	0.000	0.000	23.576	22.064	105.500	MWD+IFR1+MS
6100.000	12.470	343.409	5991.841	23.809	0.000	22.878	0.000	8.557	0.000	0.000	23.949	22.440	105.602	MWD+IFR1+MS
6191.724	12.470	343.409	6081.401	24.156	0.000	23.224	0.000	8.708	0.000	0.000	24.289	22.785	105.673	MWD+IFR1+MS

6200.000	12.305	343.409	6089.484	24.190	0.000	23.254	0.000	8.722	0.000	0.000	24.319	22.816	105.671	MWD+IFR1+MS
6300.000	10.305	343.409	6187.539	24.612	0.000	23.623	0.000	8.890	0.000	0.000	24.706	23.191	105.268	MWD+IFR1+MS
6400.000	8.305	343.409	6286.219	25.075	0.000	23.992	0.000	9.060	0.000	0.000	25.161	23.568	104.058	MWD+IFR1+MS
6500.000	6.305	343.409	6385.402	25.500	0.000	24.355	0.000	9.223	0.000	0.000	25.609	23.937	102.976	MWD+IFR1+MS
6600.000	4.305	343.409	6484.969	25.887	0.000	24.711	0.000	9.380	0.000	0.000	26.050	24.298	102.015	MWD+IFR1+MS
6700.000	2.305	343.409	6584.797	26.235	0.000	25.060	0.000	9.531	0.000	0.000	26.483	24.652	101.166	MWD+IFR1+MS
6800.000	0.305	343.409	6684.766	26.544	0.000	25.403	0.000	9.678	0.000	0.000	26.906	24.998	100.420	MWD+IFR1+MS
6815.234	0.000	0.000	6700.000	26.895	0.000	25.114	0.000	9.701	0.000	0.000	26.955	25.049	100.419	MWD+IFR1+MS
6900.000	0.000	0.000	6784.766	27.164	0.000	25.399	0.000	9.824	0.000	0.000	27.225	25.334	100.492	MWD+IFR1+MS
7000.000	0.000	0.000	6884.766	27.487	0.000	25.741	0.000	9.973	0.000	0.000	27.549	25.674	100.691	MWD+IFR1+MS
7100.000	0.000	0.000	6984.766	27.811	0.000	26.084	0.000	10.124	0.000	0.000	27.875	26.015	100.918	MWD+IFR1+MS
7200.000	0.000	0.000	7084.766	28.135	0.000	26.427	0.000	10.279	0.000	0.000	28.202	26.356	101.142	MWD+IFR1+MS
7300.000	0.000	0.000	7184.766	28.461	0.000	26.771	0.000	10.436	0.000	0.000	28.530	26.698	101.364	MWD+IFR1+MS
7400.000	0.000	0.000	7284.766	28.787	0.000	27.115	0.000	10.596	0.000	0.000	28.858	27.040	101.584	MWD+IFR1+MS
7500.000	0.000	0.000	7384.766	29.114	0.000	27.460	0.000	10.759	0.000	0.000	29.188	27.382	101.802	MWD+IFR1+MS
7600.000	0.000	0.000	7484.766	29.442	0.000	27.805	0.000	10.925	0.000	0.000	29.518	27.725	102.018	MWD+IFR1+MS
7700.000	0.000	0.000	7584.766	29.771	0.000	28.150	0.000	11.094	0.000	0.000	29.849	28.068	102.232	MWD+IFR1+MS
7800.000	0.000	0.000	7684.766	30.100	0.000	28.496	0.000	11.266	0.000	0.000	30.180	28.411	102.444	MWD+IFR1+MS
7900.000	0.000	0.000	7784.766	30.430	0.000	28.842	0.000	11.441	0.000	0.000	30.512	28.755	102.653	MWD+IFR1+MS
8000.000	0.000	0.000	7884.766	30.761	0.000	29.188	0.000	11.619	0.000	0.000	30.845	29.099	102.861	MWD+IFR1+MS
8100.000	0.000	0.000	7984.766	31.092	0.000	29.535	0.000	11.800	0.000	0.000	31.178	29.443	103.067	MWD+IFR1+MS
8200.000	0.000	0.000	8084.766	31.424	0.000	29.881	0.000	11.983	0.000	0.000	31.512	29.788	103.271	MWD+IFR1+MS
8300.000	0.000	0.000	8184.766	31.756	0.000	30.229	0.000	12.171	0.000	0.000	31.846	30.133	103.473	MWD+IFR1+MS
8400.000	0.000	0.000	8284.766	32.089	0.000	30.576	0.000	12.361	0.000	0.000	32.182	30.478	103.672	MWD+IFR1+MS
8500.000	0.000	0.000	8384.766	32.422	0.000	30.924	0.000	12.554	0.000	0.000	32.517	30.824	103.870	MWD+IFR1+MS
8600.000	0.000	0.000	8484.766	32.756	0.000	31.271	0.000	12.750	0.000	0.000	32.853	31.169	104.066	MWD+IFR1+MS
8700.000	0.000	0.000	8584.766	33.091	0.000	31.619	0.000	12.949	0.000	0.000	33.190	31.515	104.260	MWD+IFR1+MS
8800.000	0.000	0.000	8684.766	33.426	0.000	31.968	0.000	13.152	0.000	0.000	33.527	31.862	104.452	MWD+IFR1+MS
8900.000	0.000	0.000	8784.766	33.761	0.000	32.316	0.000	13.357	0.000	0.000	33.865	32.208	104.641	MWD+IFR1+MS
9000.000	0.000	0.000	8884.766	34.097	0.000	32.665	0.000	13.566	0.000	0.000	34.203	32.555	104.830	MWD+IFR1+MS
9100.000	0.000	0.000	8984.766	34.434	0.000	33.014	0.000	13.777	0.000	0.000	34.541	32.902	105.016	MWD+IFR1+MS
9200.000	0.000	0.000	9084.766	34.770	0.000	33.363	0.000	13.992	0.000	0.000	34.880	33.249	105.200	MWD+IFR1+MS
9300.000	0.000	0.000	9184.766	35.108	0.000	33.713	0.000	14.210	0.000	0.000	35.219	33.596	105.382	MWD+IFR1+MS

9400.000	0.000	0.000	9284.766	35.445	0.000	34.062	0.000	14.431	0.000	0.000	35.559	33.943	105.563	MWD+IFR1+MS
9500.000	0.000	0.000	9384.766	35.783	0.000	34.412	0.000	14.655	0.000	0.000	35.899	34.291	105.741	MWD+IFR1+MS
9600.000	0.000	0.000	9484.766	36.122	0.000	34.762	0.000	14.883	0.000	0.000	36.240	34.639	105.918	MWD+IFR1+MS
9700.000	0.000	0.000	9584.766	36.461	0.000	35.112	0.000	15.113	0.000	0.000	36.581	34.987	106.093	MWD+IFR1+MS
9800.000	0.000	0.000	9684.766	36.800	0.000	35.462	0.000	15.347	0.000	0.000	36.922	35.335	106.266	MWD+IFR1+MS
9900.000	0.000	0.000	9784.766	37.140	0.000	35.813	0.000	15.584	0.000	0.000	37.264	35.684	106.437	MWD+IFR1+MS
10000.000	0.000	0.000	9884.766	37.480	0.000	36.163	0.000	15.824	0.000	0.000	37.606	36.032	106.607	MWD+IFR1+MS
10100.000	0.000	0.000	9984.766	37.820	0.000	36.514	0.000	16.067	0.000	0.000	37.948	36.381	106.775	MWD+IFR1+MS
10200.000	0.000	0.000	10084.766	38.160	0.000	36.865	0.000	16.313	0.000	0.000	38.290	36.730	106.941	MWD+IFR1+MS
10300.000	0.000	0.000	10184.766	38.501	0.000	37.216	0.000	16.562	0.000	0.000	38.633	37.079	107.105	MWD+IFR1+MS
10400.000	0.000	0.000	10284.766	38.843	0.000	37.567	0.000	16.815	0.000	0.000	38.977	37.428	107.268	MWD+IFR1+MS
10500.000	0.000	0.000	10384.766	39.184	0.000	37.918	0.000	17.071	0.000	0.000	39.320	37.777	107.428	MWD+IFR1+MS
10600.000	0.000	0.000	10484.766	39.526	0.000	38.270	0.000	17.330	0.000	0.000	39.664	38.127	107.588	MWD+IFR1+MS
10640.034	0.000	0.000	10524.800	39.662	0.000	38.409	0.000	17.434	0.000	0.000	39.799	38.266	107.606	MWD+IFR1+MS
10700.000	4.797	179.723	10584.696	39.467	0.000	38.609	-0.000	17.590	0.000	0.000	40.016	38.465	107.325	MWD+IFR1+MS
10800.000	12.797	179.723	10683.439	39.274	0.000	38.907	-0.000	17.884	0.000	0.000	40.927	38.786	103.251	MWD+IFR1+MS
10900.000	20.797	179.723	10779.095	38.889	0.000	39.182	-0.000	18.315	0.000	0.000	42.101	39.075	100.331	MWD+IFR1+MS
11000.000	28.797	179.723	10869.801	37.981	0.000	39.429	-0.000	18.934	0.000	0.000	43.124	39.326	99.004	MWD+IFR1+MS
11100.000	36.797	179.723	10953.792	36.646	0.000	39.648	-0.000	19.781	0.000	0.000	43.975	39.543	98.346	MWD+IFR1+MS
11200.000	44.797	179.723	11029.433	35.013	0.000	39.835	-0.000	20.862	0.000	0.000	44.646	39.726	98.036	MWD+IFR1+MS
11300.000	52.797	179.723	11095.252	33.246	0.000	39.991	-0.000	22.160	0.000	0.000	45.140	39.877	97.928	MWD+IFR1+MS
11400.000	60.797	179.723	11149.968	31.551	0.000	40.115	-0.000	23.635	0.000	0.000	45.474	39.996	97.940	MWD+IFR1+MS
11500.000	68.797	179.723	11192.515	30.166	0.000	40.208	-0.000	25.235	0.000	0.000	45.669	40.084	98.013	MWD+IFR1+MS
11600.000	76.797	179.723	11222.067	29.334	0.000	40.269	-0.000	26.903	0.000	0.000	45.759	40.142	98.088	MWD+IFR1+MS
11700.000	84.797	179.723	11238.047	29.253	0.000	40.299	-0.000	28.581	0.000	0.000	45.782	40.171	98.100	MWD+IFR1+MS
11765.034	90.000	179.723	11240.997	29.119	0.000	40.299	-0.000	29.119	0.000	0.000	45.781	40.174	98.029	MWD+IFR1+MS
11800.000	90.000	179.723	11240.997	29.200	0.000	40.295	-0.000	29.200	0.000	0.000	45.780	40.172	97.977	MWD+IFR1+MS
11900.000	90.000	179.723	11240.997	29.386	0.000	40.299	-0.000	29.386	0.000	0.000	45.778	40.180	97.845	MWD+IFR1+MS
12000.000	90.000	179.723	11240.997	29.596	0.000	40.320	-0.000	29.596	0.000	0.000	45.777	40.204	97.735	MWD+IFR1+MS
12100.000	90.000	179.723	11240.997	29.825	0.000	40.355	-0.000	29.825	0.000	0.000	45.777	40.243	97.643	MWD+IFR1+MS
12200.000	90.000	179.723	11240.997	30.073	0.000	40.405	-0.000	30.073	0.000	0.000	45.777	40.296	97.567	MWD+IFR1+MS
12300.000	90.000	179.723	11240.997	30.339	0.000	40.469	-0.000	30.339	0.000	0.000	45.779	40.363	97.509	MWD+IFR1+MS
12400.000	90.000	179.723	11240.997	30.623	0.000	40.547	-0.000	30.623	0.000	0.000	45.781	40.444	97.467	MWD+IFR1+MS

12500.000	90.000	179.723	11240.997	30.924	0.000	40.640	-0.000	30.924	0.000	0.000	45.784	40.540	97.443	MWD+IFR1+MS
12600.000	90.000	179.723	11240.997	31.242	0.000	40.747	-0.000	31.242	0.000	0.000	45.788	40.649	97.438	MWD+IFR1+MS
12700.000	90.000	179.723	11240.997	31.577	0.000	40.868	-0.000	31.577	0.000	0.000	45.793	40.772	97.452	MWD+IFR1+MS
12800.000	90.000	179.723	11240.997	31.927	0.000	41.003	-0.000	31.927	0.000	0.000	45.799	40.909	97.487	MWD+IFR1+MS
12900.000	90.000	179.723	11240.997	32.292	0.000	41.152	-0.000	32.292	0.000	0.000	45.805	41.059	97.544	MWD+IFR1+MS
13000.000	90.000	179.723	11240.997	32.672	0.000	41.314	-0.000	32.672	0.000	0.000	45.812	41.223	97.626	MWD+IFR1+MS
13100.000	90.000	179.723	11240.997	33.067	0.000	41.490	-0.000	33.067	0.000	0.000	45.820	41.400	97.737	MWD+IFR1+MS
13200.000	90.000	179.723	11240.997	33.475	0.000	41.679	-0.000	33.475	0.000	0.000	45.830	41.590	97.880	MWD+IFR1+MS
13300.000	90.000	179.723	11240.997	33.896	0.000	41.882	-0.000	33.896	0.000	0.000	45.839	41.793	98.061	MWD+IFR1+MS
13400.000	90.000	179.723	11240.997	34.330	0.000	42.097	-0.000	34.330	0.000	0.000	45.850	42.008	98.287	MWD+IFR1+MS
13500.000	90.000	179.723	11240.997	34.777	0.000	42.325	-0.000	34.777	0.000	0.000	45.862	42.236	98.568	MWD+IFR1+MS
13600.000	90.000	179.723	11240.997	35.235	0.000	42.566	-0.000	35.235	0.000	0.000	45.875	42.476	98.915	MWD+IFR1+MS
13700.000	90.000	179.723	11240.997	35.705	0.000	42.819	-0.000	35.705	0.000	0.000	45.890	42.727	99.347	MWD+IFR1+MS
13800.000	90.000	179.723	11240.997	36.185	0.000	43.084	-0.000	36.185	0.000	0.000	45.905	42.990	99.889	MWD+IFR1+MS
13900.000	90.000	179.723	11240.997	36.676	0.000	43.361	-0.000	36.676	0.000	0.000	45.922	43.264	100.576	MWD+IFR1+MS
14000.000	90.000	179.723	11240.997	37.178	0.000	43.649	-0.000	37.178	0.000	0.000	45.942	43.548	101.462	MWD+IFR1+MS
14100.000	90.000	179.723	11240.997	37.688	0.000	43.950	-0.000	37.688	0.000	0.000	45.963	43.841	102.632	MWD+IFR1+MS
14200.000	90.000	179.723	11240.997	38.209	0.000	44.261	-0.000	38.209	0.000	0.000	45.989	44.143	104.222	MWD+IFR1+MS
14300.000	90.000	179.723	11240.997	38.738	0.000	44.583	-0.000	38.738	0.000	0.000	46.019	44.451	106.468	MWD+IFR1+MS
14400.000	90.000	179.723	11240.997	39.275	0.000	44.916	-0.000	39.275	0.000	0.000	46.059	44.761	109.794	MWD+IFR1+MS
14500.000	90.000	179.723	11240.997	39.821	0.000	45.260	-0.000	39.821	0.000	0.000	46.114	45.067	114.975	MWD+IFR1+MS
14600.000	90.000	179.723	11240.997	40.375	0.000	45.613	-0.000	40.375	0.000	0.000	46.199	45.354	123.253	MWD+IFR1+MS
14700.000	90.000	179.723	11240.997	40.936	0.000	45.977	-0.000	40.936	0.000	0.000	46.343	45.593	-44.667	MWD+IFR1+MS
14800.000	90.000	179.723	11240.997	41.505	0.000	46.351	-0.000	41.505	0.000	0.000	46.569	45.759	-31.678	MWD+IFR1+MS
14900.000	90.000	179.723	11240.997	42.080	0.000	46.734	-0.000	42.080	0.000	0.000	46.870	45.861	-21.944	MWD+IFR1+MS
15000.000	90.000	179.723	11240.997	42.662	0.000	47.126	-0.000	42.662	0.000	0.000	47.217	45.927	-15.769	MWD+IFR1+MS
15100.000	90.000	179.723	11240.997	43.251	0.000	47.528	-0.000	43.251	0.000	0.000	47.592	45.974	-11.859	MWD+IFR1+MS
15200.000	90.000	179.723	11240.997	43.845	0.000	47.938	-0.000	43.845	0.000	0.000	47.985	46.013	-9.260	MWD+IFR1+MS
15300.000	90.000	179.723	11240.997	44.446	0.000	48.357	-0.000	44.446	0.000	0.000	48.393	46.047	-7.442	MWD+IFR1+MS
15400.000	90.000	179.723	11240.997	45.052	0.000	48.785	-0.000	45.052	0.000	0.000	48.812	46.077	-6.113	MWD+IFR1+MS
15500.000	90.000	179.723	11240.997	45.664	0.000	49.220	-0.000	45.664	0.000	0.000	49.242	46.107	-5.106	MWD+IFR1+MS
15600.000	90.000	179.723	11240.997	46.281	0.000	49.664	-0.000	46.281	0.000	0.000	49.681	46.135	-4.321	MWD+IFR1+MS
15700.000	90.000	179.723	11240.997	46.903	0.000	50.115	-0.000	46.903	0.000	0.000	50.129	46.163	-3.695	MWD+IFR1+MS

15800.000	90.000	179.723	11240.997	47.530	0.000	50.574	-0.000	47.530	0.000	0.000	50.585	46.191	-3.186	MWD+IFR1+MS
15900.000	90.000	179.723	11240.997	48.161	0.000	51.041	-0.000	48.161	0.000	0.000	51.049	46.218	-2.765	MWD+IFR1+MS
16000.000	90.000	179.723	11240.997	48.797	0.000	51.514	-0.000	48.797	0.000	0.000	51.521	46.246	-2.413	MWD+IFR1+MS
16100.000	90.000	179.723	11240.997	49.437	0.000	51.994	-0.000	49.437	0.000	0.000	52.000	46.274	-2.115	MWD+IFR1+MS
16200.000	90.000	179.723	11240.997	50.081	0.000	52.482	-0.000	50.081	0.000	0.000	52.486	46.303	-1.860	MWD+IFR1+MS
16300.000	90.000	179.723	11240.997	50.729	0.000	52.975	-0.000	50.729	0.000	0.000	52.979	46.332	-1.639	MWD+IFR1+MS
16400.000	90.000	179.723	11240.997	51.381	0.000	53.476	-0.000	51.381	0.000	0.000	53.478	46.361	-1.448	MWD+IFR1+MS
16500.000	90.000	179.723	11240.997	52.037	0.000	53.982	-0.000	52.037	0.000	0.000	53.984	46.390	-1.280	MWD+IFR1+MS
16600.000	90.000	179.723	11240.997	52.696	0.000	54.494	-0.000	52.696	0.000	0.000	54.496	46.420	-1.133	MWD+IFR1+MS
16700.000	90.000	179.723	11240.997	53.359	0.000	55.013	-0.000	53.359	0.000	0.000	55.014	46.451	-1.002	MWD+IFR1+MS
16800.000	90.000	179.723	11240.997	54.025	0.000	55.537	-0.000	54.025	0.000	0.000	55.538	46.482	-0.886	MWD+IFR1+MS
16900.000	90.000	179.723	11240.997	54.694	0.000	56.066	-0.000	54.694	0.000	0.000	56.067	46.514	-0.783	MWD+IFR1+MS
17000.000	90.000	179.723	11240.997	55.366	0.000	56.601	-0.000	55.366	0.000	0.000	56.602	46.546	-0.690	MWD+IFR1+MS
17100.000	90.000	179.723	11240.997	56.041	0.000	57.142	-0.000	56.041	0.000	0.000	57.142	46.578	-0.607	MWD+IFR1+MS
17200.000	90.000	179.723	11240.997	56.719	0.000	57.687	-0.000	56.719	0.000	0.000	57.687	46.611	-0.532	MWD+IFR1+MS
17300.000	90.000	179.723	11240.997	57.399	0.000	58.237	-0.000	57.399	0.000	0.000	58.237	46.645	-0.464	MWD+IFR1+MS
17400.000	90.000	179.723	11240.997	58.082	0.000	58.792	-0.000	58.082	0.000	0.000	58.792	46.679	-0.402	MWD+IFR1+MS
17500.000	90.000	179.723	11240.997	58.768	0.000	59.352	-0.000	58.768	0.000	0.000	59.352	46.714	-0.346	MWD+IFR1+MS
17600.000	90.000	179.723	11240.997	59.456	0.000	59.916	-0.000	59.456	0.000	0.000	59.916	46.749	-0.295	MWD+IFR1+MS
17700.000	90.000	179.723	11240.997	60.147	0.000	60.485	-0.000	60.147	0.000	0.000	60.485	46.785	-0.248	MWD+IFR1+MS
17800.000	90.000	179.723	11240.997	60.839	0.000	61.058	-0.000	60.839	0.000	0.000	61.058	46.821	-0.206	MWD+IFR1+MS
17900.000	90.000	179.723	11240.997	61.534	0.000	61.635	-0.000	61.534	0.000	0.000	61.636	46.858	-0.167	MWD+IFR1+MS
18000.000	90.000	179.723	11240.997	62.232	0.000	62.217	-0.000	62.232	0.000	0.000	62.217	46.896	-0.131	MWD+IFR1+MS
18100.000	90.000	179.723	11240.997	62.931	0.000	62.802	-0.000	62.931	0.000	0.000	62.802	46.934	-0.098	MWD+IFR1+MS
18200.000	90.000	179.723	11240.997	63.632	0.000	63.391	-0.000	63.632	0.000	0.000	63.391	46.972	-0.068	MWD+IFR1+MS
18300.000	90.000	179.723	11240.997	64.335	0.000	63.984	-0.000	64.335	0.000	0.000	63.984	47.011	-0.041	MWD+IFR1+MS
18400.000	90.000	179.723	11240.997	65.040	0.000	64.580	-0.000	65.040	0.000	0.000	64.581	47.051	-0.015	MWD+IFR1+MS
18500.000	90.000	179.723	11240.997	65.747	0.000	65.180	-0.000	65.747	0.000	0.000	65.181	47.091	0.008	MWD+IFR1+MS
18600.000	90.000	179.723	11240.997	66.456	0.000	65.784	-0.000	66.456	0.000	0.000	65.784	47.132	0.030	MWD+IFR1+MS
18700.000	90.000	179.723	11240.997	67.166	0.000	66.391	-0.000	67.166	0.000	0.000	66.391	47.173	0.050	MWD+IFR1+MS
18800.000	90.000	179.723	11240.997	67.878	0.000	67.001	-0.000	67.878	0.000	0.000	67.001	47.215	0.069	MWD+IFR1+MS
18900.000	90.000	179.723	11240.997	68.591	0.000	67.614	-0.000	68.591	0.000	0.000	67.615	47.257	0.086	MWD+IFR1+MS
19000.000	90.000	179.723	11240.997	69.306	0.000	68.230	-0.000	69.306	0.000	0.000	68.231	47.300	0.102	MWD+IFR1+MS

19100.000	90.000	179.723	11240.997	70.023	0.000	68.849	-0.000	70.023	0.000	0.000	68.850	47.343	0.116	MWD+IFR1+MS
19200.000	90.000	179.723	11240.997	70.741	0.000	69.472	-0.000	70.741	0.000	0.000	69.472	47.387	0.130	MWD+IFR1+MS
19300.000	90.000	179.723	11240.997	71.460	0.000	70.097	-0.000	71.460	0.000	0.000	70.098	47.432	0.143	MWD+IFR1+MS
19400.000	90.000	179.723	11240.997	72.181	0.000	70.724	-0.000	72.181	0.000	0.000	70.725	47.477	0.154	MWD+IFR1+MS
19500.000	90.000	179.723	11240.997	72.903	0.000	71.355	-0.000	72.903	0.000	0.000	71.356	47.523	0.165	MWD+IFR1+MS
19600.000	90.000	179.723	11240.997	73.626	0.000	71.988	-0.000	73.626	0.000	0.000	71.989	47.569	0.175	MWD+IFR1+MS
19700.000	90.000	179.723	11240.997	74.351	0.000	72.624	-0.000	74.351	0.000	0.000	72.625	47.615	0.184	MWD+IFR1+MS
19800.000	90.000	179.723	11240.997	75.077	0.000	73.262	-0.000	75.077	0.000	0.000	73.263	47.663	0.193	MWD+IFR1+MS
19900.000	90.000	179.723	11240.997	75.804	0.000	73.902	-0.000	75.804	0.000	0.000	73.904	47.710	0.200	MWD+IFR1+MS
20000.000	90.000	179.723	11240.997	76.532	0.000	74.545	-0.000	76.532	0.000	0.000	74.547	47.759	0.208	MWD+IFR1+MS
20100.000	90.000	179.723	11240.997	77.261	0.000	75.190	-0.000	77.261	0.000	0.000	75.192	47.807	0.214	MWD+IFR1+MS
20200.000	90.000	179.723	11240.997	77.992	0.000	75.838	-0.000	77.992	0.000	0.000	75.839	47.857	0.221	MWD+IFR1+MS
20300.000	90.000	179.723	11240.997	78.723	0.000	76.487	-0.000	78.723	0.000	0.000	76.489	47.907	0.226	MWD+IFR1+MS
20400.000	90.000	179.723	11240.997	79.455	0.000	77.139	-0.000	79.455	0.000	0.000	77.141	47.957	0.232	MWD+IFR1+MS
20500.000	90.000	179.723	11240.997	80.189	0.000	77.793	-0.000	80.189	0.000	0.000	77.795	48.008	0.236	MWD+IFR1+MS
20600.000	90.000	179.723	11240.997	80.923	0.000	78.449	-0.000	80.923	0.000	0.000	78.451	48.059	0.241	MWD+IFR1+MS
20700.000	90.000	179.723	11240.997	81.658	0.000	79.107	-0.000	81.658	0.000	0.000	79.109	48.111	0.245	MWD+IFR1+MS
20800.000	90.000	179.723	11240.997	82.394	0.000	79.766	-0.000	82.394	0.000	0.000	79.768	48.164	0.249	MWD+IFR1+MS
20900.000	90.000	179.723	11240.997	83.132	0.000	80.428	-0.000	83.132	0.000	0.000	80.430	48.217	0.252	MWD+IFR1+MS
21000.000	90.000	179.723	11240.997	83.870	0.000	81.091	-0.000	83.870	0.000	0.000	81.094	48.270	0.255	MWD+IFR1+MS
21100.000	90.000	179.723	11240.997	84.608	0.000	81.757	-0.000	84.608	0.000	0.000	81.759	48.324	0.258	MWD+IFR1+MS
21200.000	90.000	179.723	11240.997	85.348	0.000	82.423	-0.000	85.348	0.000	0.000	82.426	48.378	0.261	MWD+IFR1+MS
21300.000	90.000	179.723	11240.997	86.088	0.000	83.092	-0.000	86.088	0.000	0.000	83.095	48.434	0.263	MWD+IFR1+MS
21400.000	90.000	179.723	11240.997	86.830	0.000	83.762	-0.000	86.830	0.000	0.000	83.765	48.489	0.265	MWD+IFR1+MS
21500.000	90.000	179.723	11240.997	87.571	0.000	84.434	-0.000	87.571	0.000	0.000	84.437	48.545	0.267	MWD+IFR1+MS
21600.000	90.000	179.723	11240.997	88.314	0.000	85.108	-0.000	88.314	0.000	0.000	85.111	48.602	0.269	MWD+IFR1+MS
21700.000	90.000	179.723	11240.997	89.058	0.000	85.783	-0.000	89.058	0.000	0.000	85.786	48.659	0.270	MWD+IFR1+MS
21800.000	90.000	179.723	11240.997	89.802	0.000	86.460	-0.000	89.802	0.000	0.000	86.462	48.716	0.271	MWD+IFR1+MS
21900.000	90.000	179.723	11240.997	90.547	0.000	87.138	-0.000	90.547	0.000	0.000	87.140	48.774	0.272	MWD+IFR1+MS
22000.000	90.000	179.723	11240.997	91.292	0.000	87.817	-0.000	91.292	0.000	0.000	87.820	48.833	0.273	MWD+IFR1+MS
22100.000	90.000	179.723	11240.997	92.038	0.000	88.498	-0.000	92.038	0.000	0.000	88.501	48.892	0.274	MWD+IFR1+MS
22200.000	90.000	179.723	11240.997	92.785	0.000	89.180	-0.000	92.785	0.000	0.000	89.183	48.951	0.275	MWD+IFR1+MS
22300.000	90.000	179.723	11240.997	93.532	0.000	89.864	-0.000	93.532	0.000	0.000	89.867	49.011	0.275	MWD+IFR1+MS

22400.000	90.000	179.723	11240.997	94.280	0.000	90.549	-0.000	94.280	0.000	0.000	90.552	49.072	0.276	MWD+IFR1+MS
22500.000	90.000	179.723	11240.997	95.029	0.000	91.235	-0.000	95.029	0.000	0.000	91.238	49.133	0.276	MWD+IFR1+MS
22600.000	90.000	179.723	11240.997	95.778	0.000	91.922	-0.000	95.778	0.000	0.000	91.925	49.194	0.276	MWD+IFR1+MS
22700.000	90.000	179.723	11240.997	96.528	0.000	92.611	-0.000	96.528	0.000	0.000	92.614	49.256	0.276	MWD+IFR1+MS
22800.000	90.000	179.723	11240.997	97.278	0.000	93.301	-0.000	97.278	0.000	0.000	93.304	49.319	0.276	MWD+IFR1+MS
22900.000	90.000	179.723	11240.997	98.029	0.000	93.992	-0.000	98.029	0.000	0.000	93.995	49.382	0.276	MWD+IFR1+MS
23000.000	90.000	179.723	11240.997	98.780	0.000	94.684	-0.000	98.780	0.000	0.000	94.687	49.445	0.276	MWD+IFR1+MS
23100.000	90.000	179.723	11240.997	99.532	0.000	95.377	-0.000	99.532	0.000	0.000	95.381	49.509	0.275	MWD+IFR1+MS
23200.000	90.000	179.723	11240.997	100.284	0.000	96.072	-0.000	100.284	0.000	0.000	96.075	49.573	0.275	MWD+IFR1+MS
23300.000	90.000	179.723	11240.997	101.037	0.000	96.767	-0.000	101.037	0.000	0.000	96.771	49.638	0.275	MWD+IFR1+MS
23400.000	90.000	179.723	11240.997	101.791	0.000	97.464	-0.000	101.791	0.000	0.000	97.467	49.704	0.274	MWD+IFR1+MS
23500.000	90.000	179.723	11240.997	102.545	0.000	98.161	-0.000	102.545	0.000	0.000	98.165	49.769	0.273	MWD+IFR1+MS
23600.000	90.000	179.723	11240.997	103.299	0.000	98.860	-0.000	103.299	0.000	0.000	98.863	49.836	0.273	MWD+IFR1+MS
23700.000	90.000	179.723	11240.997	104.054	0.000	99.559	-0.000	104.054	0.000	0.000	99.563	49.902	0.272	MWD+IFR1+MS
23800.000	90.000	179.723	11240.997	104.809	0.000	100.260	-0.000	104.809	0.000	0.000	100.263	49.970	0.271	MWD+IFR1+MS
23900.000	90.000	179.723	11240.997	105.564	0.000	100.961	-0.000	105.564	0.000	0.000	100.965	50.037	0.270	MWD+IFR1+MS
24000.000	90.000	179.723	11240.997	106.320	0.000	101.664	-0.000	106.320	0.000	0.000	101.667	50.105	0.270	MWD+IFR1+MS
24100.000	90.000	179.723	11240.997	107.077	0.000	102.367	-0.000	107.077	0.000	0.000	102.371	50.174	0.269	MWD+IFR1+MS
24200.000	90.000	179.723	11240.997	107.834	0.000	103.071	-0.000	107.834	0.000	0.000	103.075	50.243	0.268	MWD+IFR1+MS
24300.000	90.000	179.723	11240.997	108.591	0.000	103.776	-0.000	108.591	0.000	0.000	103.780	50.312	0.267	MWD+IFR1+MS
24400.000	90.000	179.723	11240.997	109.349	0.000	104.482	-0.000	109.349	0.000	0.000	104.486	50.382	0.266	MWD+IFR1+MS
24500.000	90.000	179.723	11240.997	110.107	0.000	105.189	-0.000	110.107	0.000	0.000	105.192	50.453	0.264	MWD+IFR1+MS
24600.000	90.000	179.723	11240.997	110.865	0.000	105.896	-0.000	110.865	0.000	0.000	105.900	50.524	0.263	MWD+IFR1+MS
24700.000	90.000	179.723	11240.997	111.624	0.000	106.605	-0.000	111.624	0.000	0.000	106.608	50.595	0.262	MWD+IFR1+MS
24800.000	90.000	179.723	11240.997	112.383	0.000	107.314	-0.000	112.383	0.000	0.000	107.317	50.667	0.261	MWD+IFR1+MS
24900.000	90.000	179.723	11240.997	113.142	0.000	108.024	-0.000	113.142	0.000	0.000	108.027	50.739	0.260	MWD+IFR1+MS
25000.000	90.000	179.723	11240.997	113.902	0.000	108.734	-0.000	113.902	0.000	0.000	108.738	50.812	0.258	MWD+IFR1+MS
25100.000	90.000	179.723	11240.997	114.662	0.000	109.446	-0.000	114.662	0.000	0.000	109.449	50.885	0.257	MWD+IFR1+MS
25200.000	90.000	179.723	11240.997	115.423	0.000	110.158	-0.000	115.423	0.000	0.000	110.162	50.958	0.256	MWD+IFR1+MS
25300.000	90.000	179.723	11240.997	116.183	0.000	110.871	-0.000	116.183	0.000	0.000	110.874	51.032	0.255	MWD+IFR1+MS
25400.000	90.000	179.723	11240.997	116.945	0.000	111.584	-0.000	116.945	0.000	0.000	111.588	51.106	0.253	MWD+IFR1+MS
25500.000	90.000	179.723	11240.997	117.706	0.000	112.298	-0.000	117.706	0.000	0.000	112.302	51.181	0.252	MWD+IFR1+MS
25600.000	90.000	179.723	11240.997	118.468	0.000	113.013	-0.000	118.468	0.000	0.000	113.017	51.256	0.251	MWD+IFR1+MS

25700.000	90.000	179.723	11240.997	119.230	0.000	113.729	-0.000	119.230	0.000	0.000	113.733	51.332	0.249	MWD+IFR1+MS
25800.000	90.000	179.723	11240.997	119.992	0.000	114.445	-0.000	119.992	0.000	0.000	114.449	51.408	0.248	MWD+IFR1+MS
25900.000	90.000	179.723	11240.997	120.755	0.000	115.162	-0.000	120.755	0.000	0.000	115.166	51.485	0.246	MWD+IFR1+MS
26000.000	90.000	179.723	11240.997	121.518	0.000	115.879	-0.000	121.518	0.000	0.000	115.883	51.562	0.245	MWD+IFR1+MS
26100.000	90.000	179.723	11240.997	122.281	0.000	116.597	-0.000	122.281	0.000	0.000	116.601	51.639	0.243	MWD+IFR1+MS
26200.000	90.000	179.723	11240.997	123.044	0.000	117.316	-0.000	123.044	0.000	0.000	117.320	51.717	0.242	MWD+IFR1+MS
26300.000	90.000	179.723	11240.997	123.808	0.000	118.035	-0.000	123.808	0.000	0.000	118.039	51.795	0.241	MWD+IFR1+MS
26400.000	90.000	179.723	11240.997	124.572	0.000	118.755	-0.000	124.572	0.000	0.000	118.759	51.874	0.239	MWD+IFR1+MS
26478.023	90.000	179.723	11240.997	125.168	0.000	119.316	-0.000	125.168	0.000	0.000	119.320	51.935	0.238	MWD+IFR1+MS
26500.000	90.000	179.723	11240.997	125.335	0.000	119.474	-0.000	125.335	0.000	0.000	119.478	51.953	0.238	MWD+IFR1+MS
26578.021	90.000	179.723	11240.997	125.931	0.000	120.035	-0.000	125.931	0.000	0.000	120.039	52.015	0.236	MWD+IFR1+MS

Plan Targets Poker Lake Unit 19 DTD South 110H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 1	11496.68	440279.20	625568.70	8063.00	RECTANGLE
LTP 1	26478.02	424850.20	625643.30	8063.00	RECTANGLE
BHL 1	26578.02	424750.20	625643.60	8063.00	RECTANGLE

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☑ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-53760	98220	Purple Sage; Wolfcamp

[4] Property Code	[5] Property Name	[6] Well Number
333976	POKER LAKE UNIT 19 DTD	110H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373075	XTO PERMIAN OPERATING, LLC	3,146'

[10] Surface Location

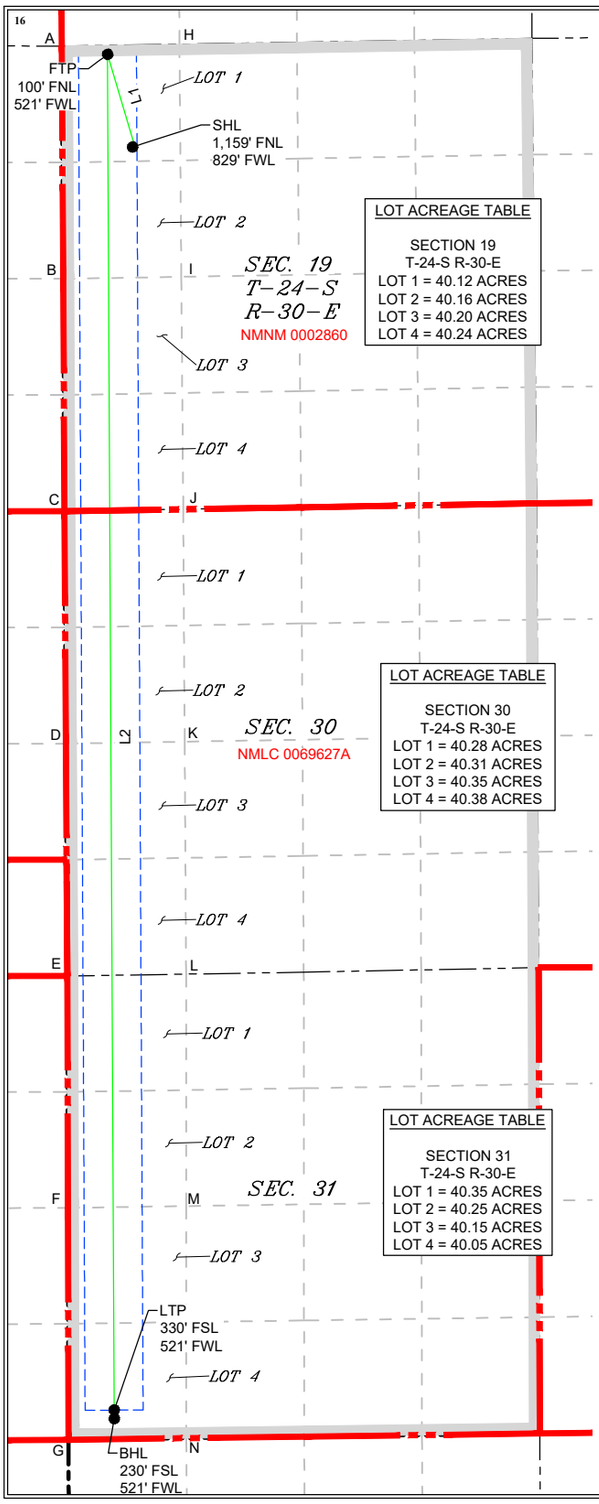
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	19	24S	30E		1,159	NORTH	829	WEST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	31	24S	30E		230	SOUTH	521	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
1,922.84			

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



LOT ACREAGE TABLE

SECTION 19
T-24-S R-30-E
LOT 1 = 40.12 ACRES
LOT 2 = 40.16 ACRES
LOT 3 = 40.20 ACRES
LOT 4 = 40.24 ACRES

LOT ACREAGE TABLE

SECTION 30
T-24-S R-30-E
LOT 1 = 40.28 ACRES
LOT 2 = 40.31 ACRES
LOT 3 = 40.35 ACRES
LOT 4 = 40.38 ACRES

LOT ACREAGE TABLE

SECTION 31
T-24-S R-30-E
LOT 1 = 40.35 ACRES
LOT 2 = 40.25 ACRES
LOT 3 = 40.15 ACRES
LOT 4 = 40.05 ACRES

LEGEND

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

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	343°24'20"	1,099.99'
L2	179°43'19"	15,529.51'

COORDINATE TABLE

SHL (NAD 83 NME)	SHL (NAD 27 NME)
Y = 439,284.3 N	Y = 439,225.0 N
X = 667,066.4 E	X = 625,882.8 E
LAT. = 32.207016 °N	LAT. = 32.206892 °N
LONG. = 103.926826 °W	LONG. = 103.926338 °W

FTP (NAD 83 NME)	FTP (NAD 27 NME)
Y = 440,338.5 N	Y = 440,279.2 N
X = 666,752.3 E	X = 625,568.7 E
LAT. = 32.209917 °N	LAT. = 32.209793 °N
LONG. = 103.927829 °W	LONG. = 103.927341 °W

LTP (NAD 83 NME)	LTP (NAD 27 NME)
Y = 424,909.1 N	Y = 424,850.2 N
X = 666,827.4 E	X = 625,643.3 E
LAT. = 32.167503 °N	LAT. = 32.167379 °N
LONG. = 103.927774 °W	LONG. = 103.927287 °W

BHL (NAD 83 NME)	BHL (NAD 27 NME)
Y = 424,809.1 N	Y = 424,750.2 N
X = 666,827.7 E	X = 625,643.6 E
LAT. = 32.167228 °N	LAT. = 32.167104 °N
LONG. = 103.927774 °W	LONG. = 103.927288 °W

CORNER COORDINATES (NAD 83 NME)

A - Y = 440,429.8 N		A - X = 666,230.7 E	
B - Y = 437,782.5 N		B - X = 666,247.3 E	
C - Y = 435,137.6 N		C - X = 666,262.9 E	
D - Y = 432,493.2 N		D - X = 666,278.8 E	
E - Y = 429,849.4 N		E - X = 666,294.7 E	
F - Y = 427,210.8 N		F - X = 666,301.0 E	
G - Y = 424,572.2 N		G - X = 666,307.2 E	
H - Y = 440,452.1 N		H - X = 667,570.7 E	
I - Y = 437,805.1 N		I - X = 667,592.7 E	
J - Y = 435,160.0 N		J - X = 667,614.2 E	
K - Y = 432,515.6 N		K - X = 667,630.4 E	
L - Y = 429,871.1 N		L - X = 667,646.7 E	
M - Y = 427,231.1 N		M - X = 667,647.6 E	
N - Y = 424,590.0 N		N - X = 667,648.6 E	

CORNER COORDINATES (NAD 27 NME)

A - Y = 440,370.5 N		A - X = 625,047.1 E	
B - Y = 437,723.3 N		B - X = 625,063.6 E	
C - Y = 435,078.4 N		C - X = 625,079.1 E	
D - Y = 432,434.1 N		D - X = 625,094.9 E	
E - Y = 429,790.3 N		E - X = 625,110.8 E	
F - Y = 427,151.8 N		F - X = 625,117.0 E	
G - Y = 424,513.3 N		G - X = 625,123.1 E	
H - Y = 440,392.8 N		H - X = 626,387.1 E	
I - Y = 437,745.9 N		I - X = 626,409.0 E	
J - Y = 435,100.8 N		J - X = 626,430.4 E	
K - Y = 432,456.5 N		K - X = 626,446.6 E	
L - Y = 429,812.1 N		L - X = 626,462.8 E	
M - Y = 427,172.1 N		M - X = 626,463.6 E	
N - Y = 424,531.1 N		N - X = 626,464.4 E	

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Terra Sebastian 03/05/2024
Signature Date

Terra Sebastian
Printed Name

terra.b.sebastian@exxonmobil.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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.

02/09/2024
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP
NEW MEXICO
23786
PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number

DB 618.013003.05-34

Intent ☐ As Drilled ☐

API #

Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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

XTO Energy Inc.
Poker Lake Unit 19 DTD South 110H
Projected TD: 26578.02' MD / 11241' TVD
SHL: 1159' FNL & 829' FWL , Section 19, T24S, R30E
BHL: 230' FSL & 521' FWL , Section 31, T24S, R30E
Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	565'	Water
Top of Salt	968'	Water
Base of Salt	3161'	Water
Delaware	3355'	Water
Brushy Canyon	5853'	Water/Oil/Gas
Bone Spring	7149'	Water
1st Bone Spring	8135'	Water/Oil/Gas
2nd Bone Spring	8953'	Water/Oil/Gas
3rd Bone Spring	10047'	Water/Oil/Gas
Wolfcamp	10438'	Water/Oil/Gas
Wolfcamp X	10459'	Water/Oil/Gas
Wolfcamp Y	10537'	Water/Oil/Gas
Wolfcamp A	10579'	Water/Oil/Gas
Wolfcamp B	10913'	Water/Oil/Gas
Wolfcamp C	11121'	Water/Oil/Gas
Target/Land Curve	11241'	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 13.375 inch casing @ 665' (303' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 9.625 inch casing at 10440.03' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 26578.02 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 10140.03 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0’ – 665'	13.375	54.5	J-55	BTC	New	1.13	3.89	25.08
12.25	0’ – 4000'	9.625	40	HC P-110	BTC	New	2.00	2.34	3.03
12.25	4000' – 10440.03'	9.625	40	HC L-80	BTC	New	1.45	1.71	3.56
8.5	0’ – 10340.03'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.88	1.89
8.5	10340.03' - 26578.02'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.73	1.89

· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry
· XTO requests to not utilize centralizers in the curve and lateral
· 9.625 Collapse analyzed using 50% evacuation based on regional experience.
· 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
· Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

· XTO requests the option to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 13-5/8” 10M top flange x 13-3/8” SOW bottom (or equivalent)

B. Tubing Head: 13-5/8” 10M bottom flange x 7-1/16” 15M top flange (or equivalent)

- Wellhead will be installed by manufacturer’s representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 665'

Lead: 270 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9.625, 40 New casing to be set at +/- 10440.03'
1st Stage
Optional Lead: 990 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: Surface
Tail: 1330 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC: Brushy Canyon @ 5853
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage
Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft3/sx, 9.61 gal/sx water)
Tail: 2060 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
Top of Cement: 0
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (5853') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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

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

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

Production Casing: 5.5, 20 New Semi-Premium, RY P-110 casing to be set at +/- 26578.02'

Lead: 50 sxs NeoCem (mixed at 13.2 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 10140.03 feet
Tail: 3140 sxs VersaCem (mixed at 14.5 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 10640.03 feet
Compressives: 12-hr = 800 psi 24 hr = 1500 psi

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

5. Pressure Control Equipment

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 3957 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 13.375, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nippling up on the 9.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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

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

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. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the BLM on February 27th 2020, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad 2. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 665'	17.5	FW/Native	8.4-8.9	35-40	NC
665' - 10440.03'	12.25	FW / Cut Brine / Direct Emulsion	8.7-9.2	30-32	NC
10440.03' - 26578.02'	8.5	OBM	11-11.5	50-60	NC - 20

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

Spud with fresh water/native mud. Drill out from under 9-5/8" surface casing with brine solution. A 9.7 ppg - 10.2 ppg cut brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

A. A Kelly cock will be in the drill string at all times.
B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
C. H2S monitors will be on location when drilling below the 13.375 casing.

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 175 to 195 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 6430 psi.

10. Anticipated Starting Date and Duration of Operations

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

10,000 PSI Annular BOP Variance Request

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

1. Component and Preventer Compatibility Tables

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

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

2. Well Control Procedures

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

<u>General Procedure While Drilling</u>

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

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

General Procedure While Tripping

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

General Procedure While Running Production Casing

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

General Procedure With No Pipe In Hole (Open Hole)

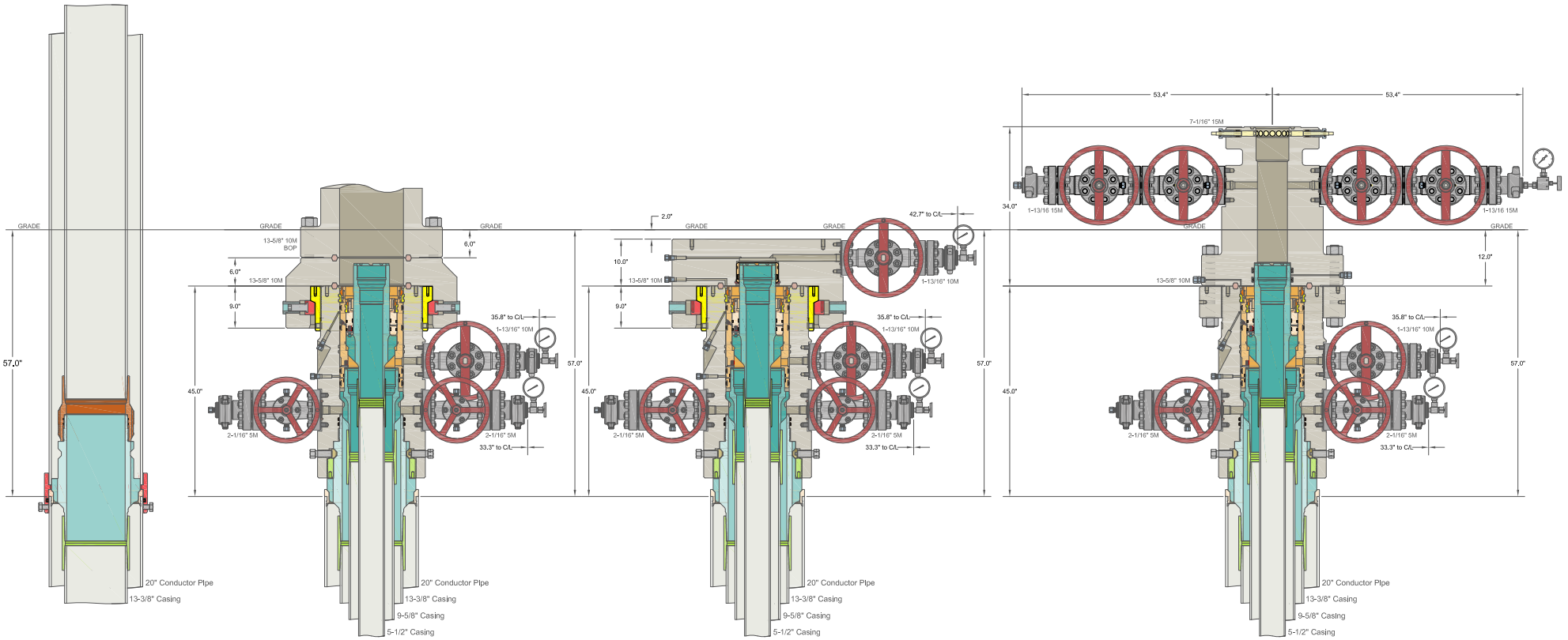
1. Sound alarm (alert crew)
2. Shut-in with blind rams (HCR & choke will already be in the closed position)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
   a. SICP
   b. Pit gain
   c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA Through Stack

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

h. Regroup and identify forward plan

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



ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

XTO ENERGY INC
DELAWARE BASIN

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

DRAWN	VJK	31MAR22
APPRV		
DRAWING NO.	SDT-2856	

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

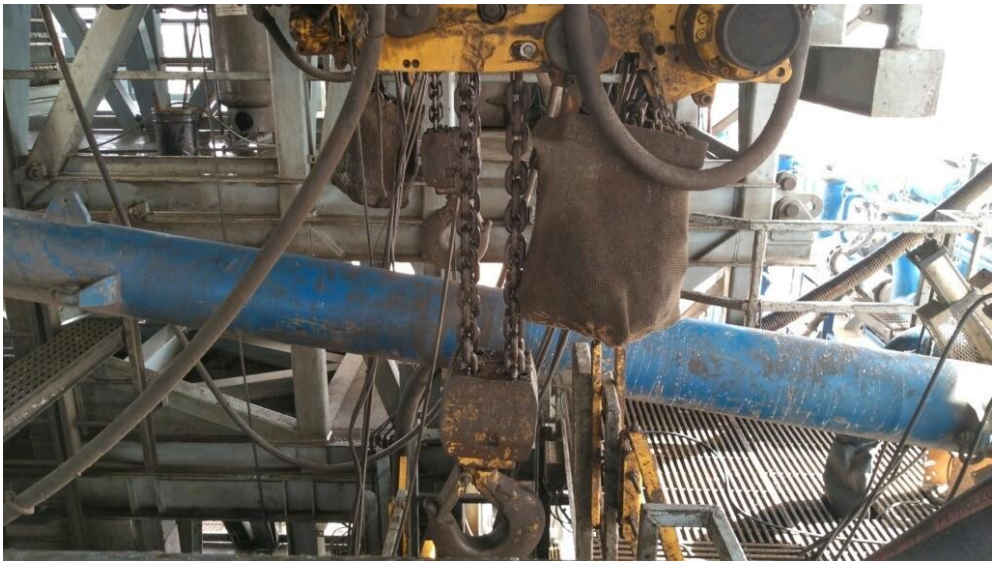


Figure 2: BOP Winch System

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.

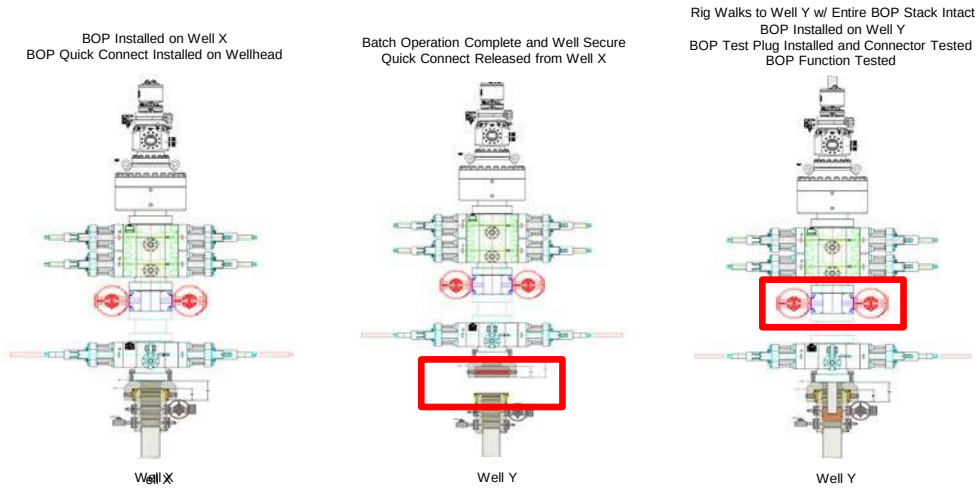
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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

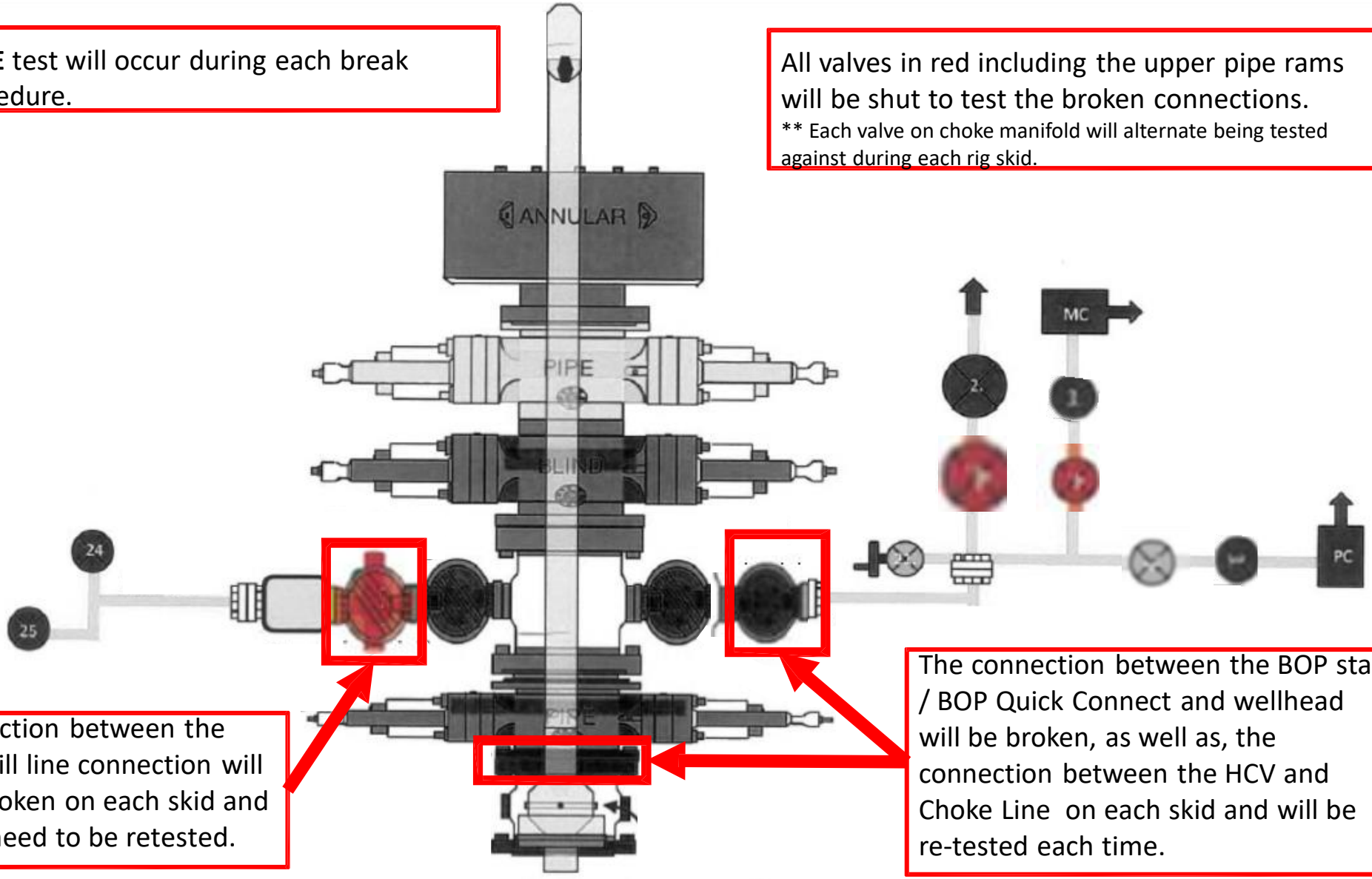
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.

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.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 330337
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	4/11/2024