

<b>Well Name:</b> POKER LAKE UNIT 19 DTD	<b>Well Location:</b> T24S / R30E / SEC 19 / NWNE / 32.206976 / -103.919834	<b>County or Parish/State:</b> EDDY / NM
<b>Well Number:</b> 324H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM002860	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b> NMNM71016X
<b>US Well Number:</b> 3001553837	<b>Operator:</b> XTO PERMIAN OPERATING LLC	

**Notice of Intent**

**Sundry ID:** 2781309

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 03/22/2024

**Time Sundry Submitted:** 04:04

**Date proposed operation will begin:** 04/12/2024

**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, and proposed total depth. FROM: TO: SHL: 1201' FNL & 2365' FEL of Section 19-T24S-R30E 1146' FNL & 2365' FEL of Section 19-T24S-R30E FTP: 100' FSL & 1870' FEL of Section 18-T24S-R30E 100' FNL & 1197' FEL of Section 19-T24S-R30E LTP: 2310' FSL & 1870' FEL of Section 31-T23S-R30E 100' FSL & 1210' FEL of Section 31-T24S-R30E BHL: 2440' FSL & 1870' FEL of Section 31-T23S-R30E 50' FSL & 1210' FEL of Section 31-T24S-R30E Proposed total depth will change from 29395' MD; 10795' TVD (Wolfcamp) to 24768' MD; TVD 9114' (2nd Bone Spring). 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**

POKER\_LAKE\_UNIT\_19\_DTD\_324H\_Sundry\_Attachments\_20240322160402.pdf

**Well Name:** POKER LAKE UNIT 19  
DTD

**Well Location:** T24S / R30E / SEC 19 /  
NWNE / 32.206976 / -103.919834

**County or Parish/State:** EDDY /  
NM

**Well Number:** 324H

**Type of Well:** CONVENTIONAL GAS  
WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM002860

**Unit or CA Name:**

**Unit or CA Number:**  
NMNM71016X

**US Well Number:** 3001553837

**Operator:** XTO PERMIAN OPERATING  
LLC

### Conditions of Approval

#### Additional

Sec19\_24S\_30E\_NMP\_Sundry\_2781309\_Poker\_Lake\_Unit\_19\_DTD\_324H\_COAs\_20240328092725.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:** TERRA SEBASTIAN

**Signed on:** MAR 22, 2024 04:04 PM

**Name:** XTO PERMIAN OPERATING LLC

**Title:** Regulatory Advisor

**Street Address:** 6401 HOLIDAY HILL ROAD SUITE 200

**City:** MIDLAND

**State:** TX

**Phone:** (432) 999-3107

**Email address:** TERRA.B.SEBASTIAN@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:** 04/24/2024

**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.**

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

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

1. Type of Well

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				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or 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 performed 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 determined that the site is ready for final inspection.)

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

Title

Signature

Date

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

## GENERAL INSTRUCTIONS

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

## SPECIFIC INSTRUCTIONS

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

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

## NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

## Additional Information

### Additional Remarks

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

### Location of Well

0. SHL: NWNE / 1201 FNL / 2365 FEL / TWSP: 24S / RANGE: 30E / SECTION: 19 / LAT: 32.206976 / LONG: -103.919834 ( TVD: 0 feet, MD: 0 feet )

PPP: SWSE / 330 FSL / 1870 FEL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.22546 / LONG: -103.91833 ( TVD: 10795 feet, MD: 16500 feet )

PPP: SWSE / 100 FSL / 1870 FEL / TWSP: 24S / RANGE: 30E / SECTION: 18 / LAT: 32.21057 / LONG: -103.918257 ( TVD: 10795 feet, MD: 11200 feet )

BHL: NWSE / 2440 FSL / 1870 FEL / TWSP: 23S / RANGE: 30E / SECTION: 31 / LAT: 32.260674 / LONG: -103.918235 ( TVD: 10795 feet, MD: 29395 feet )

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO Permian Operating LLC
<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 19 DTD 324H
<b>LOCATION:</b>	Sec 19-24S-30E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2781309** on 03/28/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

<b>H<sub>2</sub>S</b>	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
<b>Potash / WIPP</b>	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input type="checkbox"/> Primary Squeeze	<input checked="" type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
<b>Variance</b>	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
<b>Variance</b>	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> <b>Batch APD / Sundry</b>				

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S 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. Variance is approved to use a 5000 (5M) Annular which shall be tested to 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](mailto: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 2<sup>nd</sup> 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 integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. **Wait on cement (WOC) for Water Basin:** After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-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.

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

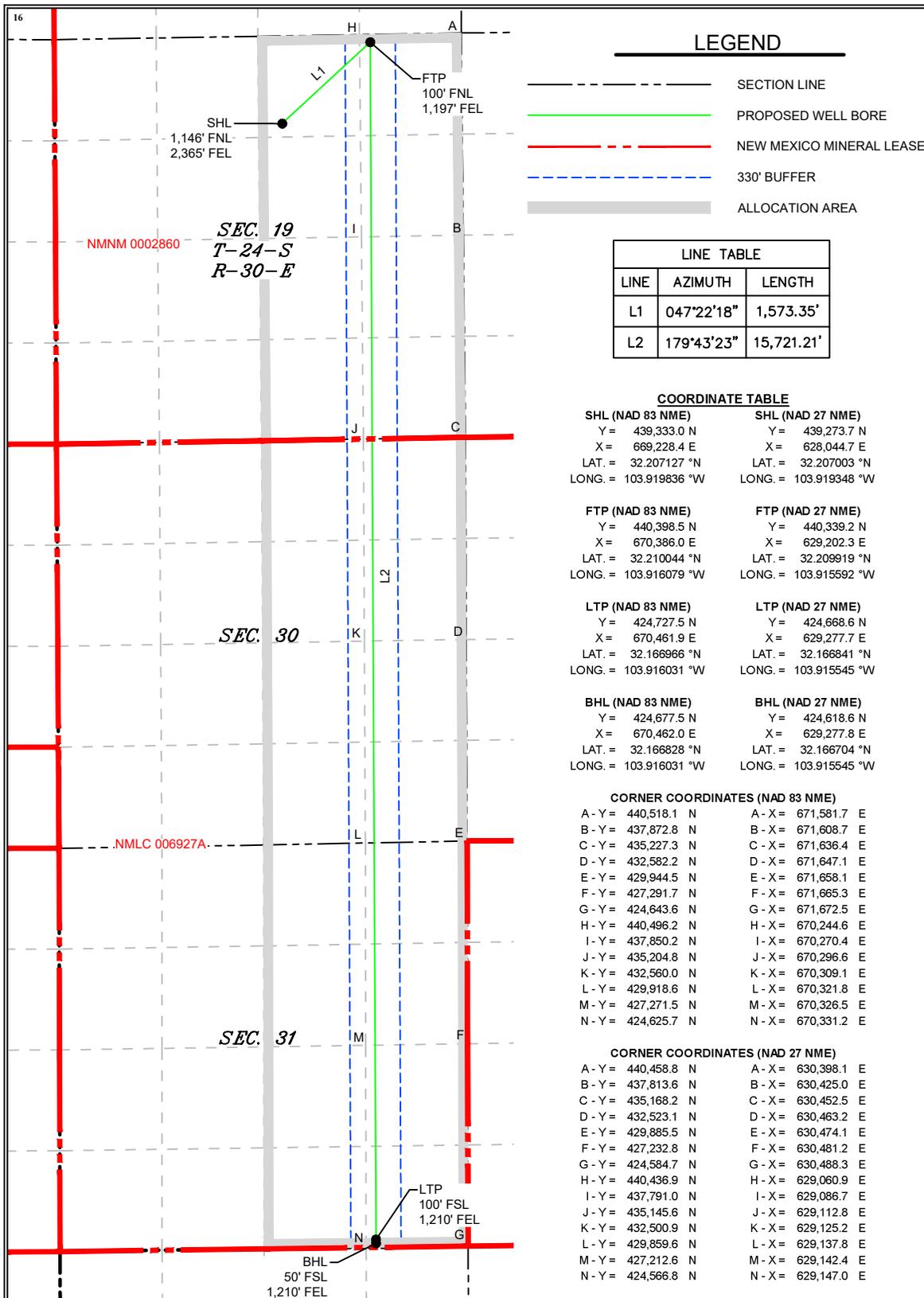
<sup>1</sup> API Number <b>30-015-53837</b>		<sup>2</sup> Pool Code <b>47545</b>		<sup>3</sup> Pool Name <b>Nash Draw; Delaware/BS (Avalon Sand)</b>	
<sup>4</sup> Property Code <b>333976</b>		<sup>5</sup> Property Name <b>POKER LAKE UNIT 19 DTD</b>			<sup>6</sup> Well Number <b>324H</b>
<sup>7</sup> OGRID No. <b>373075</b>		<sup>8</sup> Operator Name <b>XTO PERMIAN OPERATING, LLC</b>			<sup>9</sup> Elevation <b>3,175'</b>

<sup>10</sup> Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>B</b>	<b>19</b>	<b>24S</b>	<b>30E</b>		<b>1,146</b>	<b>NORTH</b>	<b>2,365</b>	<b>EAST</b>	<b>EDDY</b>

<sup>11</sup> 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
<b>P</b>	<b>31</b>	<b>24S</b>	<b>30E</b>		<b>50</b>	<b>SOUTH</b>	<b>1,210</b>	<b>EAST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres <b>960.00</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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.



**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.*

*Manish Saini* **03/20/2024**  
Signature Date

**Manish Saini**  
Printed Name  
manish.saini@exxonmoil.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  
RP 618.013003.05-56

P:\618.013 XTO Energy - NM\003 Poker Lake Unit\05 - PLU 19 DTD - EDDY\Wells\56 - 324H\DWG\SOUTH 324H C-102.dwg

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.  
 PLU 19 Dog Town Draw 324H  
 Projected TD: 24768.91' MD / 9114' TVD  
 SHL: 1146' FNL & 2365' FEL , Section 19, T24S, R30E  
 BHL: 50' FSL & 1210' FEL , 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	644'	Water
Top of Salt	1047'	Water
Base of Salt	3240'	Water
Delaware	3434'	Water
Brushy Canyon	5932'	Water/Oil/Gas
Bone Spring	7228'	Water
1st Bone Spring	8214'	Water/Oil/Gas
2nd Bone Spring	9032'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>9114'</b>	<b>Water/Oil/Gas</b>

\*\*\* 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 @ 744' (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 8439.63' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 24768.91 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 8139.63 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 744'	13.375	54.5	J-55	BTC	New	1.57	3.48	22.42
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	3.43	2.48	3.75
12.25	4000' – 8439.63'	9.625	40	HC L-80	BTC	New	2.49	2.38	5.16
8.5	0' – 8339.63'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.81	2.13
8.5	8339.63' - 24768.91'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.57	2.13

- 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 +/- 744'**

Lead: 320 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft<sup>3</sup>/sx, 10.13 gal/sx water)  
 Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/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 +/- 8439.63'**

###### 1st Stage

Optional Lead: 1000 sxs Class C (mixed at 10.5 ppg, 2.77 ft<sup>3</sup>/sx, 15.59 gal/sx water)  
 TOC: Surface  
 Tail: 720 sxs Class C (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)  
 TOC: Brushy Canyon @ 5932  
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

###### 2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft<sup>3</sup>/sx, 9.61 gal/sx water)  
 Tail: 2090 sxs Class C (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/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 (5932') 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 +/- 24768.91'**

Lead: 50 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement: 8139.63 feet  
 Tail: 3180 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement: 8639.63 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 2308 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 nipping up on the 13.375, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nipping 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' - 744'	17.5	FW/Native	8.4-8.9	35-40	NC
744' - 8439.63'	12.25	FW / Cut Brine / Direct Emulsion	8.2-8.7	30-32	NC
8439.63' - 24768.91'	8.5	OBM	9.1-9.6	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 155 to 175 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 4313 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.

# Well Plan Report - Poker Lake Unit 19 DTD South 324H

**Measured Depth:** 24768.91 ft

**TVD RKB:** 9114.00 ft

**Location**

**Cartographic Reference System:** New Mexico East - NAD 27

**Northing:** 439273.70 ft

**Easting:** 628044.70 ft

**RKB:** 3207.00 ft

**Ground Level:** 3175.00 ft

**North Reference:** Grid

**Convergence Angle:** 0.22 Deg

**Plan Sections** Poker Lake Unit 19 DTD South 324H

Measured	TVD					Build	Turn	Dogleg
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft) Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
2033.05	18.66	47.37	2016.64	102.00	110.81	2.00	0.00	2.00
6008.78	18.66	47.37	5783.36	963.50	1046.79	0.00	0.00	0.00
6941.83	0.00	0.00	6700.00	1065.50	1157.60	-2.00	0.00	2.00
8639.63	0.00	0.00	8397.80	1065.50	1157.60	0.00	0.00	0.00
9764.63	90.00	179.72	9114.00	349.31	1161.05	8.00	0.00	8.00
10977.09	90.00	179.72	9114.00	-863.13	1166.89	0.00	0.00	0.00 LTP 24
24768.91	90.00	179.72	9114.00	-14654.79	1233.33	0.00	0.00	0.00 BHL 24

**Position Uncertainty** Poker Lake Unit 19 DTD South 324H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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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	2.405	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	2.483	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	2.528	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	2.630	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	47.372	1199.980	5.271	0.000	4.235	0.000	2.686	0.000	0.000	5.278	4.228	133.033	MWD+IFR1+MS
1300.000	4.000	47.372	1299.838	6.018	0.000	4.626	0.000	2.745	0.000	0.000	6.030	4.623	-40.422	MWD+IFR1+MS
1400.000	6.000	47.372	1399.452	6.695	0.000	5.011	0.000	2.811	0.000	0.000	6.729	4.993	-37.255	MWD+IFR1+MS
1500.000	8.000	47.372	1498.702	7.318	0.000	5.393	0.000	2.883	0.000	0.000	7.382	5.355	-35.436	MWD+IFR1+MS
1600.000	10.000	47.372	1597.465	7.900	0.000	5.772	0.000	2.966	0.000	0.000	7.996	5.715	-34.265	MWD+IFR1+MS
1700.000	12.000	47.372	1695.623	8.449	0.000	6.150	0.000	3.060	0.000	0.000	8.579	6.074	-33.448	MWD+IFR1+MS
1800.000	14.000	47.372	1793.055	8.968	0.000	6.528	0.000	3.168	0.000	0.000	9.136	6.434	-32.845	MWD+IFR1+MS
1900.000	16.000	47.372	1889.643	9.463	0.000	6.907	0.000	3.291	0.000	0.000	9.670	6.798	-32.376	MWD+IFR1+MS
2000.000	18.000	47.372	1985.268	9.938	0.000	7.288	0.000	3.431	0.000	0.000	10.185	7.164	-31.996	MWD+IFR1+MS
2033.048	18.661	47.372	2016.640	10.014	0.000	7.407	0.000	3.454	0.000	0.000	10.281	7.286	-32.019	MWD+IFR1+MS
2100.000	18.661	47.372	2080.072	10.199	0.000	7.651	0.000	3.516	0.000	0.000	10.456	7.534	-32.025	MWD+IFR1+MS
2200.000	18.661	47.372	2174.814	10.484	0.000	8.032	0.000	3.617	0.000	0.000	10.727	7.917	-31.866	MWD+IFR1+MS
2300.000	18.661	47.372	2269.557	10.784	0.000	8.423	0.000	3.725	0.000	0.000	11.012	8.308	-31.601	MWD+IFR1+MS
2400.000	18.661	47.372	2364.300	11.091	0.000	8.815	0.000	3.837	0.000	0.000	11.305	8.701	-31.337	MWD+IFR1+MS
2500.000	18.661	47.372	2459.043	11.407	0.000	9.210	0.000	3.954	0.000	0.000	11.604	9.096	-31.073	MWD+IFR1+MS
2600.000	18.661	47.372	2553.786	11.729	0.000	9.606	0.000	4.074	0.000	0.000	11.910	9.492	-30.810	MWD+IFR1+MS
2700.000	18.661	47.372	2648.529	12.057	0.000	10.003	0.000	4.198	0.000	0.000	12.221	9.890	-30.547	MWD+IFR1+MS
2800.000	18.661	47.372	2743.272	12.391	0.000	10.402	0.000	4.325	0.000	0.000	12.537	10.289	-30.284	MWD+IFR1+MS
2900.000	18.661	47.372	2838.014	12.731	0.000	10.802	0.000	4.455	0.000	0.000	12.858	10.689	-30.021	MWD+IFR1+MS

3000.000	18.661	47.372	2932.757	13.076	0.000	11.203	0.000	4.589	0.000	0.000	13.184	11.089	-29.757	MWD+IFR1+MS
3100.000	18.661	47.372	3027.500	13.425	0.000	11.604	0.000	4.725	0.000	0.000	13.514	11.491	-29.493	MWD+IFR1+MS
3200.000	18.661	47.372	3122.243	13.778	0.000	12.007	0.000	4.863	0.000	0.000	13.849	11.894	-29.227	MWD+IFR1+MS
3300.000	18.661	47.372	3216.986	14.135	0.000	12.410	0.000	5.005	0.000	0.000	14.186	12.297	-28.961	MWD+IFR1+MS
3400.000	18.661	47.372	3311.729	14.496	0.000	12.814	0.000	5.148	0.000	0.000	14.527	12.701	-28.693	MWD+IFR1+MS
3500.000	18.661	47.372	3406.472	14.860	0.000	13.218	0.000	5.293	0.000	0.000	14.872	13.105	-28.424	MWD+IFR1+MS
3600.000	18.661	47.372	3501.214	15.228	0.000	13.623	0.000	5.441	0.000	0.000	15.219	13.510	-28.152	MWD+IFR1+MS
3700.000	18.661	47.372	3595.957	15.598	0.000	14.029	0.000	5.591	0.000	0.000	15.569	13.916	-27.878	MWD+IFR1+MS
3800.000	18.661	47.372	3690.700	15.971	0.000	14.435	0.000	5.742	0.000	0.000	15.921	14.322	-27.602	MWD+IFR1+MS
3900.000	18.661	47.372	3785.443	16.346	0.000	14.841	0.000	5.895	0.000	0.000	16.276	14.728	-27.323	MWD+IFR1+MS
4000.000	18.661	47.372	3880.186	16.724	0.000	15.248	0.000	6.051	0.000	0.000	16.634	15.135	-27.041	MWD+IFR1+MS
4100.000	18.661	47.372	3974.929	17.104	0.000	15.655	0.000	6.207	0.000	0.000	16.993	15.542	-26.755	MWD+IFR1+MS
4200.000	18.661	47.372	4069.671	17.486	0.000	16.062	0.000	6.366	0.000	0.000	17.355	15.949	-26.466	MWD+IFR1+MS
4300.000	18.661	47.372	4164.414	17.870	0.000	16.470	0.000	6.526	0.000	0.000	17.718	16.357	-26.172	MWD+IFR1+MS
4400.000	18.661	47.372	4259.157	18.255	0.000	16.878	0.000	6.688	0.000	0.000	18.083	16.765	-25.874	MWD+IFR1+MS
4500.000	18.661	47.372	4353.900	18.643	0.000	17.286	0.000	6.852	0.000	0.000	18.450	17.173	-25.571	MWD+IFR1+MS
4600.000	18.661	47.372	4448.643	19.032	0.000	17.695	0.000	7.017	0.000	0.000	18.818	17.581	-25.263	MWD+IFR1+MS
4700.000	18.661	47.372	4543.386	19.422	0.000	18.103	0.000	7.183	0.000	0.000	19.188	17.990	-24.949	MWD+IFR1+MS
4800.000	18.661	47.372	4638.129	19.814	0.000	18.512	0.000	7.351	0.000	0.000	19.559	18.398	-24.629	MWD+IFR1+MS
4900.000	18.661	47.372	4732.871	20.207	0.000	18.921	0.000	7.521	0.000	0.000	19.931	18.807	-24.303	MWD+IFR1+MS
5000.000	18.661	47.372	4827.614	20.601	0.000	19.331	0.000	7.692	0.000	0.000	20.305	19.216	-23.969	MWD+IFR1+MS
5100.000	18.661	47.372	4922.357	20.997	0.000	19.740	0.000	7.865	0.000	0.000	20.680	19.626	-23.628	MWD+IFR1+MS
5200.000	18.661	47.372	5017.100	21.394	0.000	20.150	0.000	8.039	0.000	0.000	21.057	20.035	-23.279	MWD+IFR1+MS
5300.000	18.661	47.372	5111.843	21.791	0.000	20.560	0.000	8.215	0.000	0.000	21.434	20.445	-22.922	MWD+IFR1+MS
5400.000	18.661	47.372	5206.586	22.190	0.000	20.970	0.000	8.392	0.000	0.000	21.812	20.854	-22.555	MWD+IFR1+MS
5500.000	18.661	47.372	5301.329	22.589	0.000	21.380	0.000	8.571	0.000	0.000	22.191	21.264	-22.178	MWD+IFR1+MS
5600.000	18.661	47.372	5396.071	22.990	0.000	21.790	0.000	8.751	0.000	0.000	22.572	21.674	-21.791	MWD+IFR1+MS
5700.000	18.661	47.372	5490.814	23.391	0.000	22.200	0.000	8.933	0.000	0.000	22.953	22.084	-21.393	MWD+IFR1+MS
5800.000	18.661	47.372	5585.557	23.793	0.000	22.610	0.000	9.116	0.000	0.000	23.335	22.494	-20.982	MWD+IFR1+MS
5900.000	18.661	47.372	5680.300	24.196	0.000	23.021	0.000	9.301	0.000	0.000	23.718	22.904	-20.559	MWD+IFR1+MS
6008.779	18.661	47.372	5783.360	24.637	0.000	23.469	0.000	9.505	0.000	0.000	24.138	23.351	-20.003	MWD+IFR1+MS
6100.000	16.837	47.372	5870.236	25.071	0.000	23.840	0.000	9.680	0.000	0.000	24.511	23.720	-19.885	MWD+IFR1+MS
6200.000	14.837	47.372	5966.435	25.574	0.000	24.237	0.000	9.878	0.000	0.000	24.973	24.117	-20.792	MWD+IFR1+MS

6300.000	12.837	47.372	6063.528	26.045	0.000	24.625	0.000	10.064	0.000	0.000	25.437	24.504	-21.683	MWD+IFR1+MS
6400.000	10.837	47.372	6161.397	26.475	0.000	25.004	0.000	10.237	0.000	0.000	25.894	24.882	-22.467	MWD+IFR1+MS
6500.000	8.837	47.372	6259.922	26.862	0.000	25.373	0.000	10.399	0.000	0.000	26.342	25.249	-23.146	MWD+IFR1+MS
6600.000	6.837	47.372	6358.983	27.207	0.000	25.732	0.000	10.552	0.000	0.000	26.780	25.606	-23.726	MWD+IFR1+MS
6700.000	4.837	47.372	6458.460	27.510	0.000	26.081	0.000	10.696	0.000	0.000	27.208	25.953	-24.215	MWD+IFR1+MS
6800.000	2.837	47.372	6558.230	27.771	0.000	26.420	0.000	10.833	0.000	0.000	27.625	26.289	-24.620	MWD+IFR1+MS
6900.000	0.837	47.372	6658.174	27.989	0.000	26.749	0.000	10.965	0.000	0.000	28.031	26.615	-24.947	MWD+IFR1+MS
6941.827	0.000	0.000	6700.000	27.007	0.000	27.912	0.000	11.019	0.000	0.000	28.160	26.749	-25.051	MWD+IFR1+MS
7000.000	0.000	0.000	6758.173	27.192	0.000	28.084	0.000	11.093	0.000	0.000	28.330	26.935	-25.126	MWD+IFR1+MS
7100.000	0.000	0.000	6858.173	27.510	0.000	28.382	0.000	11.224	0.000	0.000	28.627	27.255	-25.250	MWD+IFR1+MS
7200.000	0.000	0.000	6958.173	27.831	0.000	28.685	0.000	11.357	0.000	0.000	28.930	27.576	-25.440	MWD+IFR1+MS
7300.000	0.000	0.000	7058.173	28.153	0.000	28.989	0.000	11.493	0.000	0.000	29.234	27.898	-25.631	MWD+IFR1+MS
7400.000	0.000	0.000	7158.173	28.475	0.000	29.294	0.000	11.633	0.000	0.000	29.539	28.220	-25.823	MWD+IFR1+MS
7500.000	0.000	0.000	7258.173	28.799	0.000	29.600	0.000	11.775	0.000	0.000	29.846	28.544	-26.015	MWD+IFR1+MS
7600.000	0.000	0.000	7358.173	29.123	0.000	29.907	0.000	11.921	0.000	0.000	30.154	28.868	-26.209	MWD+IFR1+MS
7700.000	0.000	0.000	7458.173	29.449	0.000	30.216	0.000	12.070	0.000	0.000	30.463	29.193	-26.403	MWD+IFR1+MS
7800.000	0.000	0.000	7558.173	29.775	0.000	30.525	0.000	12.222	0.000	0.000	30.772	29.519	-26.598	MWD+IFR1+MS
7900.000	0.000	0.000	7658.173	30.101	0.000	30.836	0.000	12.377	0.000	0.000	31.083	29.846	-26.794	MWD+IFR1+MS
8000.000	0.000	0.000	7758.173	30.429	0.000	31.148	0.000	12.535	0.000	0.000	31.396	30.173	-26.990	MWD+IFR1+MS
8100.000	0.000	0.000	7858.173	30.757	0.000	31.460	0.000	12.696	0.000	0.000	31.709	30.501	-27.187	MWD+IFR1+MS
8200.000	0.000	0.000	7958.173	31.086	0.000	31.774	0.000	12.861	0.000	0.000	32.023	30.830	-27.385	MWD+IFR1+MS
8300.000	0.000	0.000	8058.173	31.415	0.000	32.089	0.000	13.029	0.000	0.000	32.338	31.159	-27.584	MWD+IFR1+MS
8400.000	0.000	0.000	8158.173	31.745	0.000	32.404	0.000	13.200	0.000	0.000	32.654	31.489	-27.783	MWD+IFR1+MS
8500.000	0.000	0.000	8258.173	32.076	0.000	32.720	0.000	13.374	0.000	0.000	32.970	31.819	-27.984	MWD+IFR1+MS
8600.000	0.000	0.000	8358.173	32.408	0.000	33.038	0.000	13.551	0.000	0.000	33.288	32.150	-28.184	MWD+IFR1+MS
8639.627	0.000	0.000	8397.800	32.537	0.000	33.162	0.000	13.623	0.000	0.000	33.411	32.281	-28.215	MWD+IFR1+MS
8700.000	4.830	179.724	8458.101	32.325	0.000	33.345	-0.000	13.730	0.000	0.000	33.595	32.498	-29.001	MWD+IFR1+MS
8800.000	12.830	179.724	8556.836	32.331	0.000	33.617	-0.000	13.959	0.000	0.000	34.224	33.209	128.841	MWD+IFR1+MS
8900.000	20.830	179.724	8652.475	32.318	0.000	33.865	-0.000	14.375	0.000	0.000	35.382	33.661	109.621	MWD+IFR1+MS
9000.000	28.830	179.724	8743.157	31.872	0.000	34.087	-0.000	15.049	0.000	0.000	36.497	33.933	103.653	MWD+IFR1+MS
9100.000	36.830	179.724	8827.117	31.078	0.000	34.279	-0.000	16.023	0.000	0.000	37.437	34.142	101.234	MWD+IFR1+MS
9200.000	44.830	179.724	8902.721	30.050	0.000	34.443	-0.000	17.292	0.000	0.000	38.179	34.310	100.138	MWD+IFR1+MS
9300.000	52.830	179.724	8968.498	28.928	0.000	34.577	-0.000	18.818	0.000	0.000	38.727	34.441	99.714	MWD+IFR1+MS

9400.000	60.830	179.724	9023.166	27.879	0.000	34.683	-0.000	20.539	0.000	0.000	39.099	34.537	99.712	MWD+IFR1+MS
9500.000	68.830	179.724	9065.662	27.086	0.000	34.761	-0.000	22.386	0.000	0.000	39.322	34.601	100.015	MWD+IFR1+MS
9600.000	76.830	179.724	9095.160	26.722	0.000	34.813	-0.000	24.290	0.000	0.000	39.434	34.632	100.539	MWD+IFR1+MS
9700.000	84.830	179.724	9111.083	26.920	0.000	34.837	-0.000	26.184	0.000	0.000	39.478	34.633	101.197	MWD+IFR1+MS
9764.627	90.000	179.724	9113.997	26.797	0.000	34.837	-0.000	26.797	0.000	0.000	39.493	34.615	101.620	MWD+IFR1+MS
9800.000	90.000	179.724	9113.997	26.905	0.000	34.833	-0.000	26.905	0.000	0.000	39.502	34.602	101.850	MWD+IFR1+MS
9900.000	90.000	179.724	9113.997	27.163	0.000	34.840	-0.000	27.163	0.000	0.000	39.527	34.580	102.531	MWD+IFR1+MS
10000.000	90.000	179.724	9113.997	27.445	0.000	34.866	-0.000	27.445	0.000	0.000	39.555	34.575	103.245	MWD+IFR1+MS
10100.000	90.000	179.724	9113.997	27.746	0.000	34.909	-0.000	27.746	0.000	0.000	39.586	34.584	103.991	MWD+IFR1+MS
10200.000	90.000	179.724	9113.997	28.066	0.000	34.968	-0.000	28.066	0.000	0.000	39.620	34.608	104.772	MWD+IFR1+MS
10300.000	90.000	179.724	9113.997	28.404	0.000	35.045	-0.000	28.404	0.000	0.000	39.658	34.645	105.594	MWD+IFR1+MS
10400.000	90.000	179.724	9113.997	28.759	0.000	35.137	-0.000	28.759	0.000	0.000	39.699	34.695	106.461	MWD+IFR1+MS
10500.000	90.000	179.724	9113.997	29.132	0.000	35.246	-0.000	29.132	0.000	0.000	39.743	34.758	107.379	MWD+IFR1+MS
10600.000	90.000	179.724	9113.997	29.520	0.000	35.372	-0.000	29.520	0.000	0.000	39.793	34.834	108.353	MWD+IFR1+MS
10700.000	90.000	179.724	9113.997	29.924	0.000	35.513	-0.000	29.924	0.000	0.000	39.846	34.921	109.388	MWD+IFR1+MS
10800.000	90.000	179.724	9113.997	30.343	0.000	35.671	-0.000	30.343	0.000	0.000	39.906	35.019	110.491	MWD+IFR1+MS
10900.000	90.000	179.724	9113.997	30.776	0.000	35.844	-0.000	30.776	0.000	0.000	39.971	35.128	111.667	MWD+IFR1+MS
10977.086	90.000	179.724	9113.997	31.117	0.000	35.985	-0.000	31.117	0.000	0.000	40.025	35.216	112.617	MWD+IFR1+MS
11000.000	90.000	179.724	9113.997	31.220	0.000	36.028	-0.000	31.220	0.000	0.000	40.041	35.242	112.904	MWD+IFR1+MS
11100.000	90.000	179.724	9113.997	31.676	0.000	36.228	-0.000	31.676	0.000	0.000	40.120	35.366	114.227	MWD+IFR1+MS
11200.000	90.000	179.724	9113.997	32.149	0.000	36.447	-0.000	32.149	0.000	0.000	40.206	35.500	115.652	MWD+IFR1+MS
11300.000	90.000	179.724	9113.997	32.634	0.000	36.680	-0.000	32.634	0.000	0.000	40.301	35.640	117.169	MWD+IFR1+MS
11400.000	90.000	179.724	9113.997	33.130	0.000	36.928	-0.000	33.130	0.000	0.000	40.406	35.786	118.778	MWD+IFR1+MS
11500.000	90.000	179.724	9113.997	33.637	0.000	37.190	-0.000	33.637	0.000	0.000	40.522	35.935	120.482	MWD+IFR1+MS
11600.000	90.000	179.724	9113.997	34.155	0.000	37.465	-0.000	34.155	0.000	0.000	40.650	36.087	122.275	MWD+IFR1+MS
11700.000	90.000	179.724	9113.997	34.682	0.000	37.754	-0.000	34.682	0.000	0.000	40.791	36.240	124.154	MWD+IFR1+MS
11800.000	90.000	179.724	9113.997	35.220	0.000	38.057	-0.000	35.220	0.000	0.000	40.946	36.392	126.108	MWD+IFR1+MS
11900.000	90.000	179.724	9113.997	35.766	0.000	38.372	-0.000	35.766	0.000	0.000	41.115	36.543	128.124	MWD+IFR1+MS
12000.000	90.000	179.724	9113.997	36.321	0.000	38.700	-0.000	36.321	0.000	0.000	41.301	36.691	130.187	MWD+IFR1+MS
12100.000	90.000	179.724	9113.997	36.885	0.000	39.040	-0.000	36.885	0.000	0.000	41.504	36.835	132.277	MWD+IFR1+MS
12200.000	90.000	179.724	9113.997	37.456	0.000	39.392	-0.000	37.456	0.000	0.000	41.724	36.974	134.374	MWD+IFR1+MS
12300.000	90.000	179.724	9113.997	38.036	0.000	39.755	-0.000	38.036	0.000	0.000	41.962	37.107	-43.544	MWD+IFR1+MS
12400.000	90.000	179.724	9113.997	38.622	0.000	40.130	-0.000	38.622	0.000	0.000	42.218	37.234	-41.496	MWD+IFR1+MS

12500.000	90.000	179.724	9113.997	39.215	0.000	40.516	-0.000	39.215	0.000	0.000	42.492	37.355	-39.501	MWD+IFR1+MS
12600.000	90.000	179.724	9113.997	39.815	0.000	40.913	-0.000	39.815	0.000	0.000	42.784	37.469	-37.576	MWD+IFR1+MS
12700.000	90.000	179.724	9113.997	40.421	0.000	41.320	-0.000	40.421	0.000	0.000	43.094	37.576	-35.731	MWD+IFR1+MS
12800.000	90.000	179.724	9113.997	41.034	0.000	41.737	-0.000	41.034	0.000	0.000	43.420	37.677	-33.975	MWD+IFR1+MS
12900.000	90.000	179.724	9113.997	41.652	0.000	42.163	-0.000	41.652	0.000	0.000	43.763	37.772	-32.315	MWD+IFR1+MS
13000.000	90.000	179.724	9113.997	42.275	0.000	42.600	-0.000	42.275	0.000	0.000	44.122	37.861	-30.751	MWD+IFR1+MS
13100.000	90.000	179.724	9113.997	42.904	0.000	43.045	-0.000	42.904	0.000	0.000	44.496	37.945	-29.284	MWD+IFR1+MS
13200.000	90.000	179.724	9113.997	43.538	0.000	43.500	-0.000	43.538	0.000	0.000	44.884	38.025	-27.912	MWD+IFR1+MS
13300.000	90.000	179.724	9113.997	44.177	0.000	43.963	-0.000	44.177	0.000	0.000	45.286	38.099	-26.632	MWD+IFR1+MS
13400.000	90.000	179.724	9113.997	44.821	0.000	44.434	-0.000	44.821	0.000	0.000	45.701	38.170	-25.438	MWD+IFR1+MS
13500.000	90.000	179.724	9113.997	45.469	0.000	44.914	-0.000	45.469	0.000	0.000	46.128	38.237	-24.326	MWD+IFR1+MS
13600.000	90.000	179.724	9113.997	46.121	0.000	45.401	-0.000	46.121	0.000	0.000	46.567	38.301	-23.290	MWD+IFR1+MS
13700.000	90.000	179.724	9113.997	46.777	0.000	45.896	-0.000	46.777	0.000	0.000	47.017	38.362	-22.325	MWD+IFR1+MS
13800.000	90.000	179.724	9113.997	47.437	0.000	46.398	-0.000	47.437	0.000	0.000	47.477	38.420	-21.427	MWD+IFR1+MS
13900.000	90.000	179.724	9113.997	48.101	0.000	46.907	-0.000	48.101	0.000	0.000	47.947	38.476	-20.589	MWD+IFR1+MS
14000.000	90.000	179.724	9113.997	48.769	0.000	47.424	-0.000	48.769	0.000	0.000	48.427	38.531	-19.806	MWD+IFR1+MS
14100.000	90.000	179.724	9113.997	49.439	0.000	47.947	-0.000	49.439	0.000	0.000	48.916	38.583	-19.076	MWD+IFR1+MS
14200.000	90.000	179.724	9113.997	50.114	0.000	48.476	-0.000	50.114	0.000	0.000	49.414	38.634	-18.393	MWD+IFR1+MS
14300.000	90.000	179.724	9113.997	50.791	0.000	49.012	-0.000	50.791	0.000	0.000	49.919	38.683	-17.753	MWD+IFR1+MS
14400.000	90.000	179.724	9113.997	51.472	0.000	49.553	-0.000	51.472	0.000	0.000	50.433	38.731	-17.153	MWD+IFR1+MS
14500.000	90.000	179.724	9113.997	52.155	0.000	50.101	-0.000	52.155	0.000	0.000	50.954	38.778	-16.590	MWD+IFR1+MS
14600.000	90.000	179.724	9113.997	52.841	0.000	50.654	-0.000	52.841	0.000	0.000	51.482	38.825	-16.061	MWD+IFR1+MS
14700.000	90.000	179.724	9113.997	53.530	0.000	51.213	-0.000	53.530	0.000	0.000	52.017	38.870	-15.563	MWD+IFR1+MS
14800.000	90.000	179.724	9113.997	54.222	0.000	51.777	-0.000	54.222	0.000	0.000	52.559	38.915	-15.094	MWD+IFR1+MS
14900.000	90.000	179.724	9113.997	54.916	0.000	52.346	-0.000	54.916	0.000	0.000	53.107	38.959	-14.651	MWD+IFR1+MS
15000.000	90.000	179.724	9113.997	55.612	0.000	52.920	-0.000	55.612	0.000	0.000	53.661	39.002	-14.233	MWD+IFR1+MS
15100.000	90.000	179.724	9113.997	56.311	0.000	53.499	-0.000	56.311	0.000	0.000	54.221	39.045	-13.837	MWD+IFR1+MS
15200.000	90.000	179.724	9113.997	57.012	0.000	54.082	-0.000	57.012	0.000	0.000	54.786	39.088	-13.463	MWD+IFR1+MS
15300.000	90.000	179.724	9113.997	57.715	0.000	54.670	-0.000	57.715	0.000	0.000	55.357	39.131	-13.107	MWD+IFR1+MS
15400.000	90.000	179.724	9113.997	58.420	0.000	55.262	-0.000	58.420	0.000	0.000	55.933	39.173	-12.770	MWD+IFR1+MS
15500.000	90.000	179.724	9113.997	59.127	0.000	55.859	-0.000	59.127	0.000	0.000	56.514	39.215	-12.449	MWD+IFR1+MS
15600.000	90.000	179.724	9113.997	59.837	0.000	56.459	-0.000	59.837	0.000	0.000	57.100	39.257	-12.145	MWD+IFR1+MS
15700.000	90.000	179.724	9113.997	60.548	0.000	57.064	-0.000	60.548	0.000	0.000	57.690	39.299	-11.854	MWD+IFR1+MS

15800.000	90.000	179.724	9113.997	61.261	0.000	57.672	-0.000	61.261	0.000	0.000	58.285	39.340	-11.577	MWD+IFR1+MS
15900.000	90.000	179.724	9113.997	61.975	0.000	58.284	-0.000	61.975	0.000	0.000	58.884	39.382	-11.313	MWD+IFR1+MS
16000.000	90.000	179.724	9113.997	62.691	0.000	58.900	-0.000	62.691	0.000	0.000	59.487	39.424	-11.061	MWD+IFR1+MS
16100.000	90.000	179.724	9113.997	63.409	0.000	59.519	-0.000	63.409	0.000	0.000	60.094	39.466	-10.819	MWD+IFR1+MS
16200.000	90.000	179.724	9113.997	64.129	0.000	60.141	-0.000	64.129	0.000	0.000	60.705	39.508	-10.588	MWD+IFR1+MS
16300.000	90.000	179.724	9113.997	64.850	0.000	60.767	-0.000	64.850	0.000	0.000	61.319	39.550	-10.367	MWD+IFR1+MS
16400.000	90.000	179.724	9113.997	65.572	0.000	61.396	-0.000	65.572	0.000	0.000	61.938	39.592	-10.155	MWD+IFR1+MS
16500.000	90.000	179.724	9113.997	66.296	0.000	62.028	-0.000	66.296	0.000	0.000	62.559	39.634	-9.952	MWD+IFR1+MS
16600.000	90.000	179.724	9113.997	67.021	0.000	62.663	-0.000	67.021	0.000	0.000	63.184	39.677	-9.757	MWD+IFR1+MS
16700.000	90.000	179.724	9113.997	67.748	0.000	63.301	-0.000	67.748	0.000	0.000	63.813	39.719	-9.569	MWD+IFR1+MS
16800.000	90.000	179.724	9113.997	68.476	0.000	63.942	-0.000	68.476	0.000	0.000	64.444	39.762	-9.389	MWD+IFR1+MS
16900.000	90.000	179.724	9113.997	69.205	0.000	64.585	-0.000	69.205	0.000	0.000	65.078	39.805	-9.215	MWD+IFR1+MS
17000.000	90.000	179.724	9113.997	69.935	0.000	65.231	-0.000	69.935	0.000	0.000	65.716	39.848	-9.048	MWD+IFR1+MS
17100.000	90.000	179.724	9113.997	70.666	0.000	65.879	-0.000	70.666	0.000	0.000	66.356	39.892	-8.887	MWD+IFR1+MS
17200.000	90.000	179.724	9113.997	71.399	0.000	66.531	-0.000	71.399	0.000	0.000	66.999	39.936	-8.732	MWD+IFR1+MS
17300.000	90.000	179.724	9113.997	72.133	0.000	67.184	-0.000	72.133	0.000	0.000	67.645	39.980	-8.582	MWD+IFR1+MS
17400.000	90.000	179.724	9113.997	72.867	0.000	67.840	-0.000	72.867	0.000	0.000	68.293	40.024	-8.437	MWD+IFR1+MS
17500.000	90.000	179.724	9113.997	73.603	0.000	68.498	-0.000	73.603	0.000	0.000	68.944	40.068	-8.298	MWD+IFR1+MS
17600.000	90.000	179.724	9113.997	74.340	0.000	69.158	-0.000	74.340	0.000	0.000	69.597	40.113	-8.163	MWD+IFR1+MS
17700.000	90.000	179.724	9113.997	75.078	0.000	69.821	-0.000	75.078	0.000	0.000	70.253	40.158	-8.032	MWD+IFR1+MS
17800.000	90.000	179.724	9113.997	75.816	0.000	70.485	-0.000	75.816	0.000	0.000	70.911	40.204	-7.906	MWD+IFR1+MS
17900.000	90.000	179.724	9113.997	76.556	0.000	71.152	-0.000	76.556	0.000	0.000	71.571	40.250	-7.784	MWD+IFR1+MS
18000.000	90.000	179.724	9113.997	77.297	0.000	71.820	-0.000	77.297	0.000	0.000	72.233	40.296	-7.665	MWD+IFR1+MS
18100.000	90.000	179.724	9113.997	78.038	0.000	72.491	-0.000	78.038	0.000	0.000	72.897	40.342	-7.551	MWD+IFR1+MS
18200.000	90.000	179.724	9113.997	78.780	0.000	73.163	-0.000	78.780	0.000	0.000	73.564	40.389	-7.439	MWD+IFR1+MS
18300.000	90.000	179.724	9113.997	79.523	0.000	73.837	-0.000	79.523	0.000	0.000	74.232	40.436	-7.332	MWD+IFR1+MS
18400.000	90.000	179.724	9113.997	80.267	0.000	74.513	-0.000	80.267	0.000	0.000	74.902	40.483	-7.227	MWD+IFR1+MS
18500.000	90.000	179.724	9113.997	81.012	0.000	75.191	-0.000	81.012	0.000	0.000	75.575	40.531	-7.125	MWD+IFR1+MS
18600.000	90.000	179.724	9113.997	81.757	0.000	75.870	-0.000	81.757	0.000	0.000	76.249	40.579	-7.027	MWD+IFR1+MS
18700.000	90.000	179.724	9113.997	82.503	0.000	76.551	-0.000	82.503	0.000	0.000	76.924	40.628	-6.931	MWD+IFR1+MS
18800.000	90.000	179.724	9113.997	83.250	0.000	77.234	-0.000	83.250	0.000	0.000	77.602	40.676	-6.838	MWD+IFR1+MS
18900.000	90.000	179.724	9113.997	83.997	0.000	77.918	-0.000	83.997	0.000	0.000	78.281	40.726	-6.747	MWD+IFR1+MS
19000.000	90.000	179.724	9113.997	84.746	0.000	78.603	-0.000	84.746	0.000	0.000	78.962	40.775	-6.659	MWD+IFR1+MS

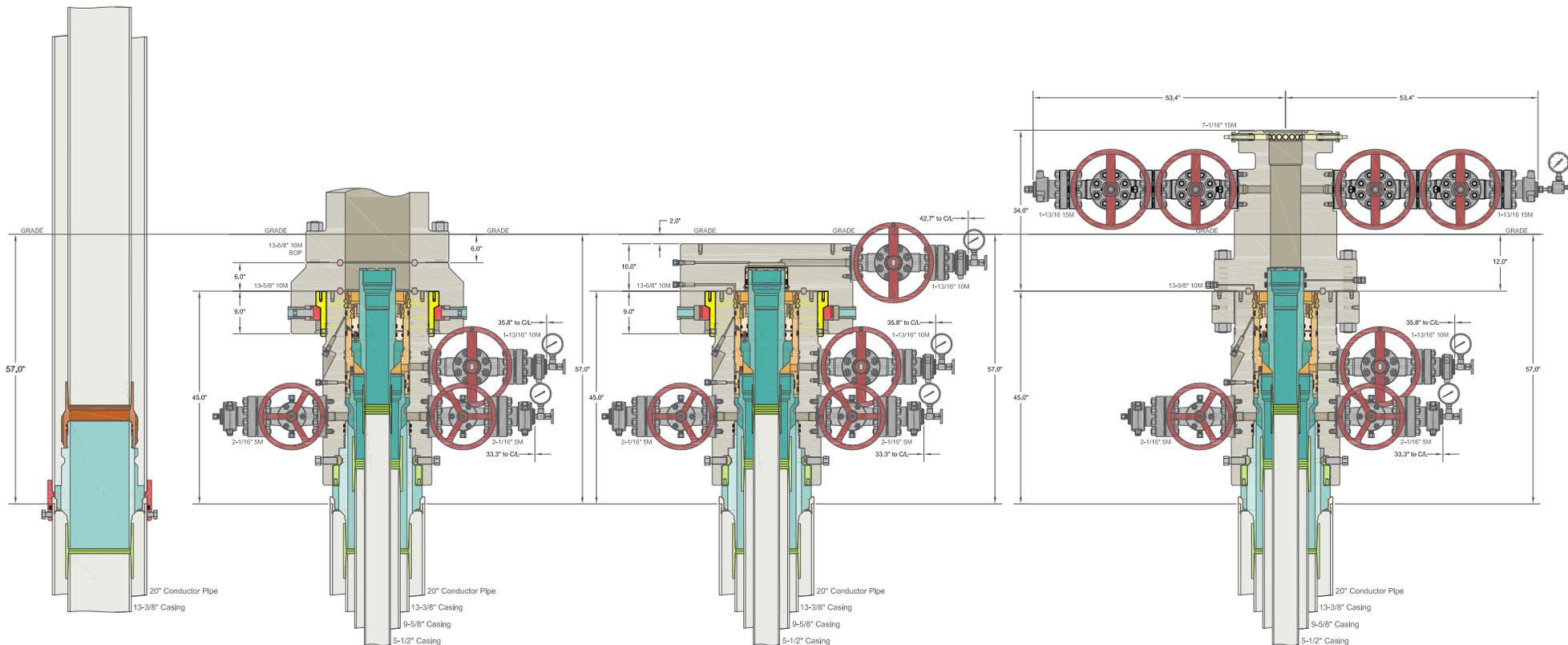
19100.000	90.000	179.724	9113.997	85.494	0.000	79.290	-0.000	85.494	0.000	0.000	79.644	40.825	-6.573	MWD+IFR1+MS
19200.000	90.000	179.724	9113.997	86.244	0.000	79.979	-0.000	86.244	0.000	0.000	80.328	40.875	-6.490	MWD+IFR1+MS
19300.000	90.000	179.724	9113.997	86.994	0.000	80.668	-0.000	86.994	0.000	0.000	81.013	40.926	-6.408	MWD+IFR1+MS
19400.000	90.000	179.724	9113.997	87.745	0.000	81.360	-0.000	87.745	0.000	0.000	81.700	40.977	-6.329	MWD+IFR1+MS
19500.000	90.000	179.724	9113.997	88.496	0.000	82.052	-0.000	88.496	0.000	0.000	82.389	41.028	-6.252	MWD+IFR1+MS
19600.000	90.000	179.724	9113.997	89.248	0.000	82.746	-0.000	89.248	0.000	0.000	83.078	41.080	-6.177	MWD+IFR1+MS
19700.000	90.000	179.724	9113.997	90.000	0.000	83.441	-0.000	90.000	0.000	0.000	83.769	41.132	-6.104	MWD+IFR1+MS
19800.000	90.000	179.724	9113.997	90.753	0.000	84.137	-0.000	90.753	0.000	0.000	84.462	41.184	-6.032	MWD+IFR1+MS
19900.000	90.000	179.724	9113.997	91.507	0.000	84.835	-0.000	91.507	0.000	0.000	85.155	41.237	-5.962	MWD+IFR1+MS
20000.000	90.000	179.724	9113.997	92.261	0.000	85.533	-0.000	92.261	0.000	0.000	85.850	41.290	-5.894	MWD+IFR1+MS
20100.000	90.000	179.724	9113.997	93.015	0.000	86.233	-0.000	93.015	0.000	0.000	86.546	41.344	-5.828	MWD+IFR1+MS
20200.000	90.000	179.724	9113.997	93.770	0.000	86.934	-0.000	93.770	0.000	0.000	87.244	41.398	-5.763	MWD+IFR1+MS
20300.000	90.000	179.724	9113.997	94.526	0.000	87.636	-0.000	94.526	0.000	0.000	87.942	41.452	-5.699	MWD+IFR1+MS
20400.000	90.000	179.724	9113.997	95.282	0.000	88.339	-0.000	95.282	0.000	0.000	88.642	41.507	-5.638	MWD+IFR1+MS
20500.000	90.000	179.724	9113.997	96.038	0.000	89.043	-0.000	96.038	0.000	0.000	89.342	41.562	-5.577	MWD+IFR1+MS
20600.000	90.000	179.724	9113.997	96.795	0.000	89.748	-0.000	96.795	0.000	0.000	90.044	41.617	-5.518	MWD+IFR1+MS
20700.000	90.000	179.724	9113.997	97.552	0.000	90.454	-0.000	97.552	0.000	0.000	90.747	41.673	-5.460	MWD+IFR1+MS
20800.000	90.000	179.724	9113.997	98.310	0.000	91.161	-0.000	98.310	0.000	0.000	91.451	41.729	-5.403	MWD+IFR1+MS
20900.000	90.000	179.724	9113.997	99.068	0.000	91.869	-0.000	99.068	0.000	0.000	92.155	41.786	-5.348	MWD+IFR1+MS
21000.000	90.000	179.724	9113.997	99.827	0.000	92.578	-0.000	99.827	0.000	0.000	92.861	41.842	-5.294	MWD+IFR1+MS
21100.000	90.000	179.724	9113.997	100.586	0.000	93.288	-0.000	100.586	0.000	0.000	93.568	41.900	-5.241	MWD+IFR1+MS
21200.000	90.000	179.724	9113.997	101.345	0.000	93.998	-0.000	101.345	0.000	0.000	94.276	41.957	-5.189	MWD+IFR1+MS
21300.000	90.000	179.724	9113.997	102.105	0.000	94.710	-0.000	102.105	0.000	0.000	94.984	42.015	-5.138	MWD+IFR1+MS
21400.000	90.000	179.724	9113.997	102.865	0.000	95.422	-0.000	102.865	0.000	0.000	95.694	42.074	-5.088	MWD+IFR1+MS
21500.000	90.000	179.724	9113.997	103.626	0.000	96.135	-0.000	103.626	0.000	0.000	96.404	42.133	-5.039	MWD+IFR1+MS
21600.000	90.000	179.724	9113.997	104.387	0.000	96.849	-0.000	104.387	0.000	0.000	97.116	42.192	-4.991	MWD+IFR1+MS
21700.000	90.000	179.724	9113.997	105.148	0.000	97.564	-0.000	105.148	0.000	0.000	97.828	42.251	-4.945	MWD+IFR1+MS
21800.000	90.000	179.724	9113.997	105.910	0.000	98.279	-0.000	105.910	0.000	0.000	98.541	42.311	-4.899	MWD+IFR1+MS
21900.000	90.000	179.724	9113.997	106.671	0.000	98.995	-0.000	106.671	0.000	0.000	99.254	42.371	-4.854	MWD+IFR1+MS
22000.000	90.000	179.724	9113.997	107.434	0.000	99.712	-0.000	107.434	0.000	0.000	99.969	42.432	-4.810	MWD+IFR1+MS
22100.000	90.000	179.724	9113.997	108.196	0.000	100.430	-0.000	108.196	0.000	0.000	100.684	42.493	-4.766	MWD+IFR1+MS
22200.000	90.000	179.724	9113.997	108.959	0.000	101.148	-0.000	108.959	0.000	0.000	101.400	42.555	-4.724	MWD+IFR1+MS
22300.000	90.000	179.724	9113.997	109.722	0.000	101.867	-0.000	109.722	0.000	0.000	102.117	42.616	-4.682	MWD+IFR1+MS

22400.000	90.000	179.724	9113.997	110.486	0.000	102.587	-0.000	110.486	0.000	0.000	102.834	42.678	-4.641	MWD+IFR1+MS
22500.000	90.000	179.724	9113.997	111.250	0.000	103.308	-0.000	111.250	0.000	0.000	103.552	42.741	-4.601	MWD+IFR1+MS
22600.000	90.000	179.724	9113.997	112.014	0.000	104.029	-0.000	112.014	0.000	0.000	104.271	42.804	-4.562	MWD+IFR1+MS
22700.000	90.000	179.724	9113.997	112.778	0.000	104.750	-0.000	112.778	0.000	0.000	104.990	42.867	-4.523	MWD+IFR1+MS
22800.000	90.000	179.724	9113.997	113.543	0.000	105.473	-0.000	113.543	0.000	0.000	105.711	42.931	-4.485	MWD+IFR1+MS
22900.000	90.000	179.724	9113.997	114.308	0.000	106.195	-0.000	114.308	0.000	0.000	106.431	42.995	-4.448	MWD+IFR1+MS
23000.000	90.000	179.724	9113.997	115.073	0.000	106.919	-0.000	115.073	0.000	0.000	107.153	43.059	-4.411	MWD+IFR1+MS
23100.000	90.000	179.724	9113.997	115.838	0.000	107.643	-0.000	115.838	0.000	0.000	107.875	43.124	-4.375	MWD+IFR1+MS
23200.000	90.000	179.724	9113.997	116.604	0.000	108.368	-0.000	116.604	0.000	0.000	108.597	43.189	-4.339	MWD+IFR1+MS
23300.000	90.000	179.724	9113.997	117.370	0.000	109.093	-0.000	117.370	0.000	0.000	109.321	43.254	-4.305	MWD+IFR1+MS
23400.000	90.000	179.724	9113.997	118.136	0.000	109.819	-0.000	118.136	0.000	0.000	110.044	43.320	-4.270	MWD+IFR1+MS
23500.000	90.000	179.724	9113.997	118.903	0.000	110.545	-0.000	118.903	0.000	0.000	110.769	43.386	-4.237	MWD+IFR1+MS
23600.000	90.000	179.724	9113.997	119.669	0.000	111.272	-0.000	119.669	0.000	0.000	111.494	43.452	-4.204	MWD+IFR1+MS
23700.000	90.000	179.724	9113.997	120.436	0.000	111.999	-0.000	120.436	0.000	0.000	112.219	43.519	-4.171	MWD+IFR1+MS
23800.000	90.000	179.724	9113.997	121.203	0.000	112.727	-0.000	121.203	0.000	0.000	112.945	43.586	-4.139	MWD+IFR1+MS
23900.000	90.000	179.724	9113.997	121.971	0.000	113.455	-0.000	121.971	0.000	0.000	113.672	43.654	-4.108	MWD+IFR1+MS
24000.000	90.000	179.724	9113.997	122.738	0.000	114.184	-0.000	122.738	0.000	0.000	114.399	43.722	-4.077	MWD+IFR1+MS
24100.000	90.000	179.724	9113.997	123.506	0.000	114.913	-0.000	123.506	0.000	0.000	115.126	43.790	-4.047	MWD+IFR1+MS
24200.000	90.000	179.724	9113.997	124.274	0.000	115.643	-0.000	124.274	0.000	0.000	115.854	43.858	-4.017	MWD+IFR1+MS
24300.000	90.000	179.724	9113.997	125.042	0.000	116.373	-0.000	125.042	0.000	0.000	116.583	43.927	-3.987	MWD+IFR1+MS
24400.000	90.000	179.724	9113.997	125.811	0.000	117.104	-0.000	125.811	0.000	0.000	117.312	43.997	-3.958	MWD+IFR1+MS
24500.000	90.000	179.724	9113.997	126.579	0.000	117.835	-0.000	126.579	0.000	0.000	118.041	44.066	-3.930	MWD+IFR1+MS
24600.000	90.000	179.724	9113.997	127.348	0.000	118.566	-0.000	127.348	0.000	0.000	118.771	44.136	-3.901	MWD+IFR1+MS
24700.000	90.000	179.724	9113.997	128.117	0.000	119.298	-0.000	128.117	0.000	0.000	119.502	44.207	-3.874	MWD+IFR1+MS
24768.906	90.000	179.724	9113.997	128.647	0.000	119.802	-0.000	128.647	0.000	0.000	120.004	44.255	-3.855	MWD+IFR1+MS

**Plan Targets**

Poker Lake Unit 19 DTD South 324H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 24	9496.67	440339.20	629202.30	5907.00	RECTANGLE
LTP 24	24719.21	424668.60	629277.70	5907.00	RECTANGLE
BHL 24	24769.29	424618.60	629277.80	5907.00	RECTANGLE



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ALL DIMENSIONS APPROXIMATE

<b>CACTUS WELLHEAD LLC</b>		<b>XTO ENERGY INC DELAWARE BASIN</b>	
(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
		APPRV	31MAR22
		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 3170 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states “A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component.” See Table C.4 below for reference.

62 API STANDARD 53			
Table C.4—Initial Pressure Testing, Surface BOP Stacks			
Component to be Pressure Tested	Pressure Test—Low Pressure <sup>ac</sup> psig (MPa)	Pressure Test—High Pressure <sup>ac</sup>	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer <sup>b</sup>	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 <sup>bd</sup>	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 <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes <sup>e</sup>	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	
<sup>a</sup> 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. <sup>b</sup> Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program. <sup>c</sup> 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. <sup>d</sup> 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. <sup>e</sup> 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.

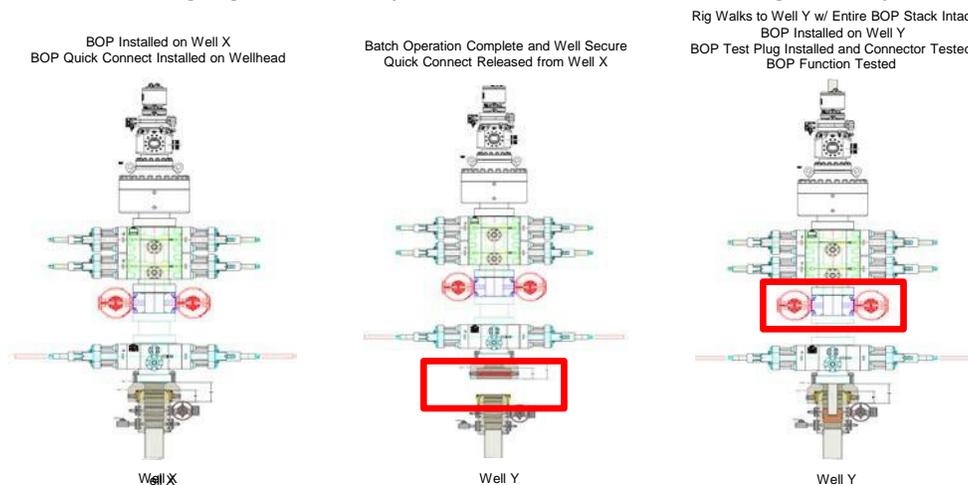
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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

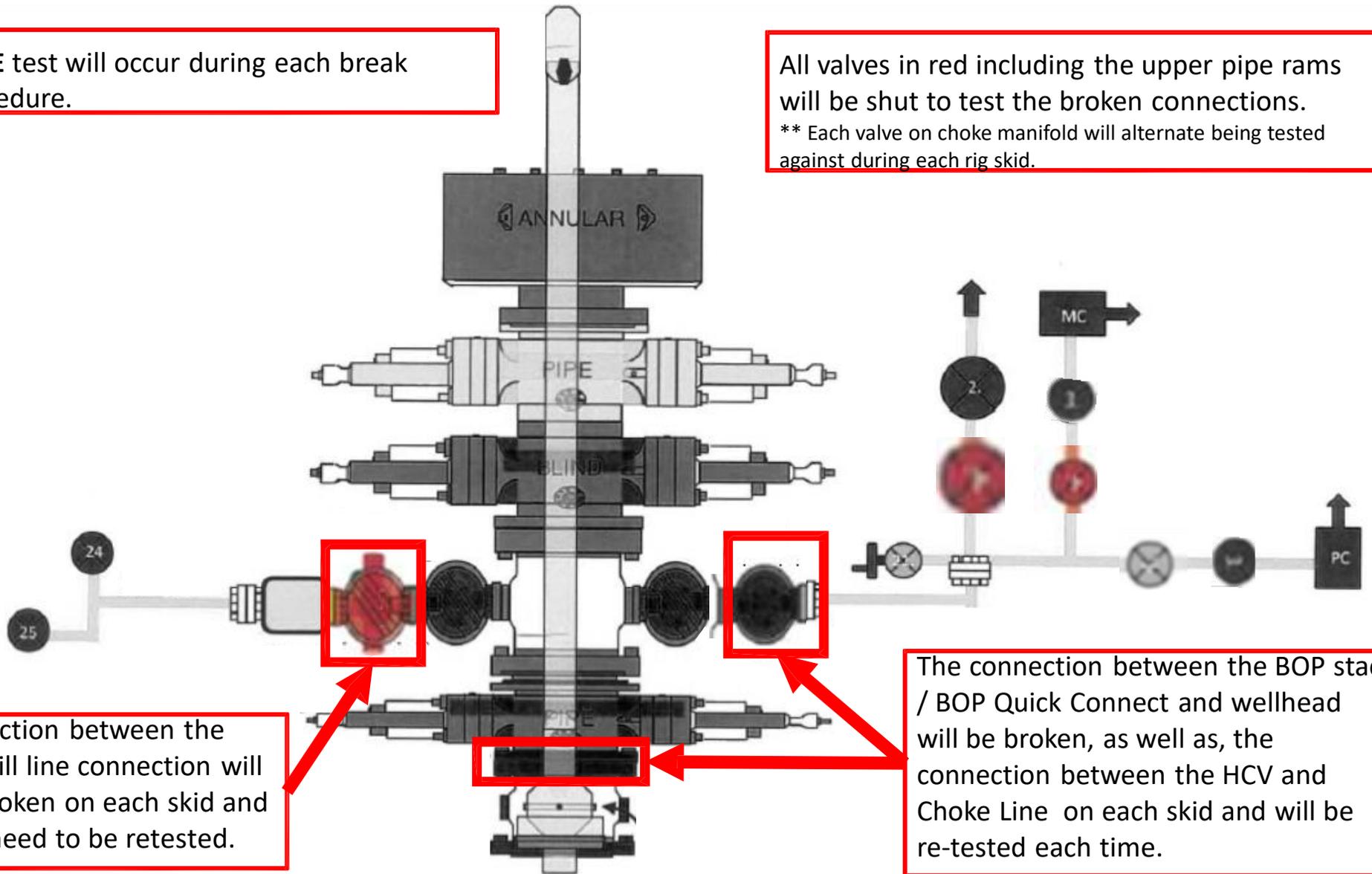
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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 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.

### 10,000 PSI Annular BOP Variance Request

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

#### 1. Component and Preventer Compatibility Tables

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

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

## 2. Well Control Procedures

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

### General Procedure While Drilling

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

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

#### General Procedure While Tripping

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

#### General Procedure While Running Production Casing

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

General Procedure With No Pipe In Hole (Open Hole)

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

General Procedures While Pulling BHA Through Stack

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

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

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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
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CONDITIONS

Action 337546

**CONDITIONS**

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 337546
	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.	4/26/2024