

Well Name: POKER LAKE UNIT 20 DTD	Well Location: T24S / R30E / SEC 20 / NENW / 32.207742 / -103.906049	County or Parish/State: EDDY / NM
Well Number: 220H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM02860	Unit or CA Name: POKER LAKE UNIT	Unit or CA Number: NMNM71016X
US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Notice of Intent

Sundry ID: 2779001

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 03/11/2024	Time Sundry Submitted: 07:17
Date proposed operation will begin: 04/01/2024	

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make changes to the approved APD as follows: SHL, FTP, LTP, BHL and drilling plan. Casing sizes are not changing but casing and cement program are being updated. FROM: TO: SHL: 965' FNL & 1900' FWL OF SECTION 20-T24S-R30E 815' FNL & 2390' FWL OF SECTION 20-T24S-R30E FTP: 100' FSL & 2310' FWL OF SECTION 17-T24S-R30E 100' FNL & 2373' FWL OF SECTION 20-T24S-R30E LTP: 330' FNL & 2310' FWL OF SECTION 32-T23S-R30E 2338' FNL & 2373' FWL OF SECTION 5-T25S-R30E BHL: 200' FNL & 2310' FWL OF SECTION 32-T23S-R30E 2438' FNL & 2373' FWL OF SECTION 5-T25S-R30E The proposed total depth is changing from 32858' MD; 11644' TVD (Wolfcamp) to 29687' MD; 11742' TVD (Wolfcamp). Attachments: C-102, Drilling Plan, Directional Plan, MBS, BOP Variance and Well Control Plan.

NOI Attachments

Procedure Description

- Wild_Well_Control_Plan_WWCP_20240311071628.pdf
- BOP_Variance_new_Language_BOP_BTV_20240311071615.pdf
- 3_String_Bighole_Four_Miler_HBE0000833_20240311071542.pdf
- Well_Plan_Report____Poker_Lake_Unit_20_DTD_South_220H_20240311071305.pdf
- PLU_20_DTD_220H_Pad_B_Drilling_Plan__2_19_2024__20240311071245.pdf
- POKER_LAKE_UNIT_20_DTD_220H_C_102_signed_3_10_2024_20240311071039.pdf

Received by OCD: 6/27/2024 12:32:03 PM

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US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Conditions of Approval

Additional

Sec_20_24S_30E_NMP_Sundry_2779001_Poker_Lake_Unit_20_DTD_220H_COAs_20240404150300.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: RANELL (RUSTY) KLEIN

Signed on: MAR 11, 2024 07:16 AM

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Analyst

Street Address: 6401 HOLIDAY HILL ROAD BLDG 5

City: MIDLANDState: TX

Phone: (432) 620-6700

Email address: RANELL.KLEIN@EXXONMOBIL.COM

Field

Representative Name:

Street Address:

City:State:Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CODY LAYTON

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 06/26/2024

Signature: Cody R. Layton

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	
7. If Unit of CA/Agreement, Name and/or No.	
8. Well Name and No.	
9. API Well No.	
10. Field and Pool or Exploratory Area	
11. Country or Parish, State	

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

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

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

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

THE SPACE FOR FEDERAL OR STATE OFFICE USE

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

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Location of Well

0. SHL: NENW / 965 FNL / 1900 FWL / TWSP: 24S / RANGE: 30E / SECTION: 20 / LAT: 32.207742 / LONG: -103.906049 (TVD: 0 feet, MD: 0 feet)
PPP: SESW / 330 FSL / 2310 FWL / TWSP: 24S / RANGE: 30E / SECTION: 8 / LAT: 32.22545 / LONG: -103.90474 (TVD: 11644 feet, MD: 17300 feet)
PPP: SESW / 100 FSL / 2310 FWL / TWSP: 24S / RANGE: 30E / SECTION: 17 / LAT: 32.210676 / LONG: -103.904742 (TVD: 11644 feet, MD: 12000 feet)
PPP: SESW / 330 FSL / 2310 FWL / TWSP: 24S / RANGE: 30E / SECTION: 5 / LAT: 32.24011 / LONG: -103.90474 (TVD: 11644 feet, MD: 22600 feet)
BHL: NENW / 200 FNL / 2310 FWL / TWSP: 23S / RANGE: 30E / SECTION: 32 / LAT: 32.268033 / LONG: -103.904737 (TVD: 11644 feet, MD: 32858 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Poker Lake Unit 20 220H
LOCATION:	Sec 20-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2779001** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

H₂S	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
Cave / Karst	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input type="checkbox"/> Primary Squeeze	<input checked="" type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
Variance	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
Variance	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> Batch APD / Sundry				

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 700 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.**

Operator has proposed to pump down 13-3/8" X 9-5/8" annulus after primary cementing stage. Operator must run a CBL from TD of the 9-5/8" casing to surface. Submit results to the BLM.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

3. The minimum required fill of cement behind the **6** inch production casing is:
- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Unit Wells

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

Commercial Well Determination

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

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP**)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

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

GENERAL REQUIREMENTS

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

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

Eddy County (API No. / US Well No. contains 30-015-#####)

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM NM CFO DrillingNotifications@blm.gov; (575) 361-2822

Lea County (API No. / US Well No. contains 30-025-#####)

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240; (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. **Wait on cement (WOC) for Potash Areas:** After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing 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.

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 Onshore O&G Order No. 2 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

1. Sound alarm (alert crew)
2. Stab crossover and full-opening safety valve and close
3. Space out 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% 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

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

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

Background

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

Supporting Documentation

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



Figure 1: Winch System attached to BOP Stack

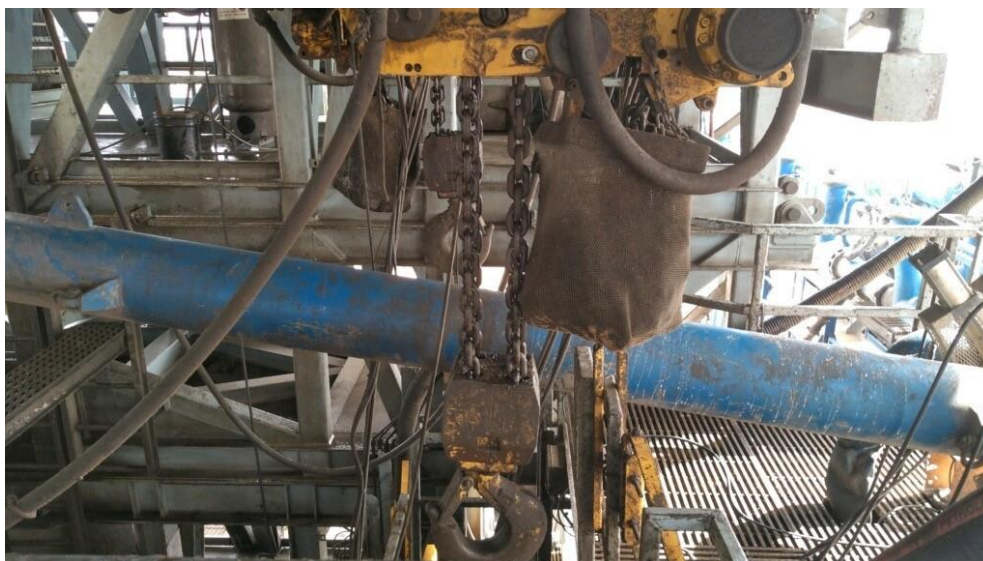


Figure 2: BOP Winch System

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

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API STANDARD 53

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

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

^a Pressure test evaluation periods shall be a minimum of five minutes.

No visible leaks.

The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

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

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

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

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

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

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

XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

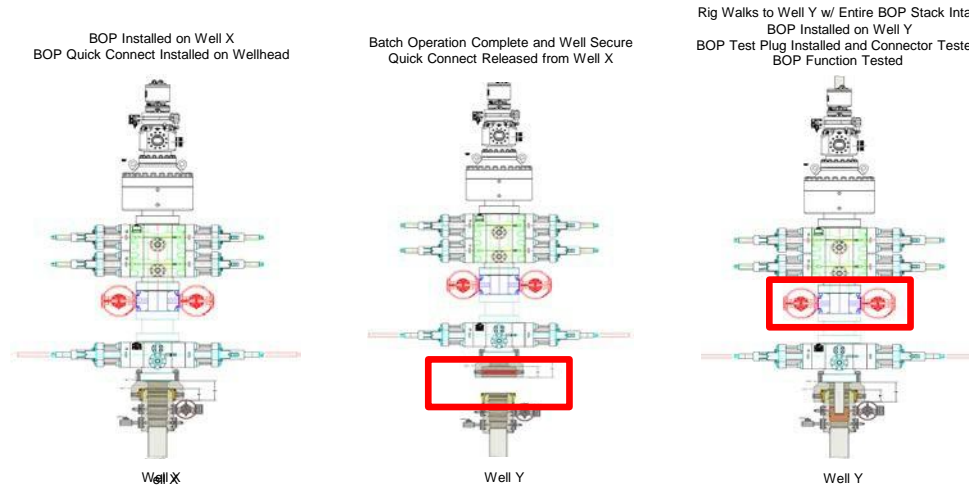
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

Procedures

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

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

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



Summary

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

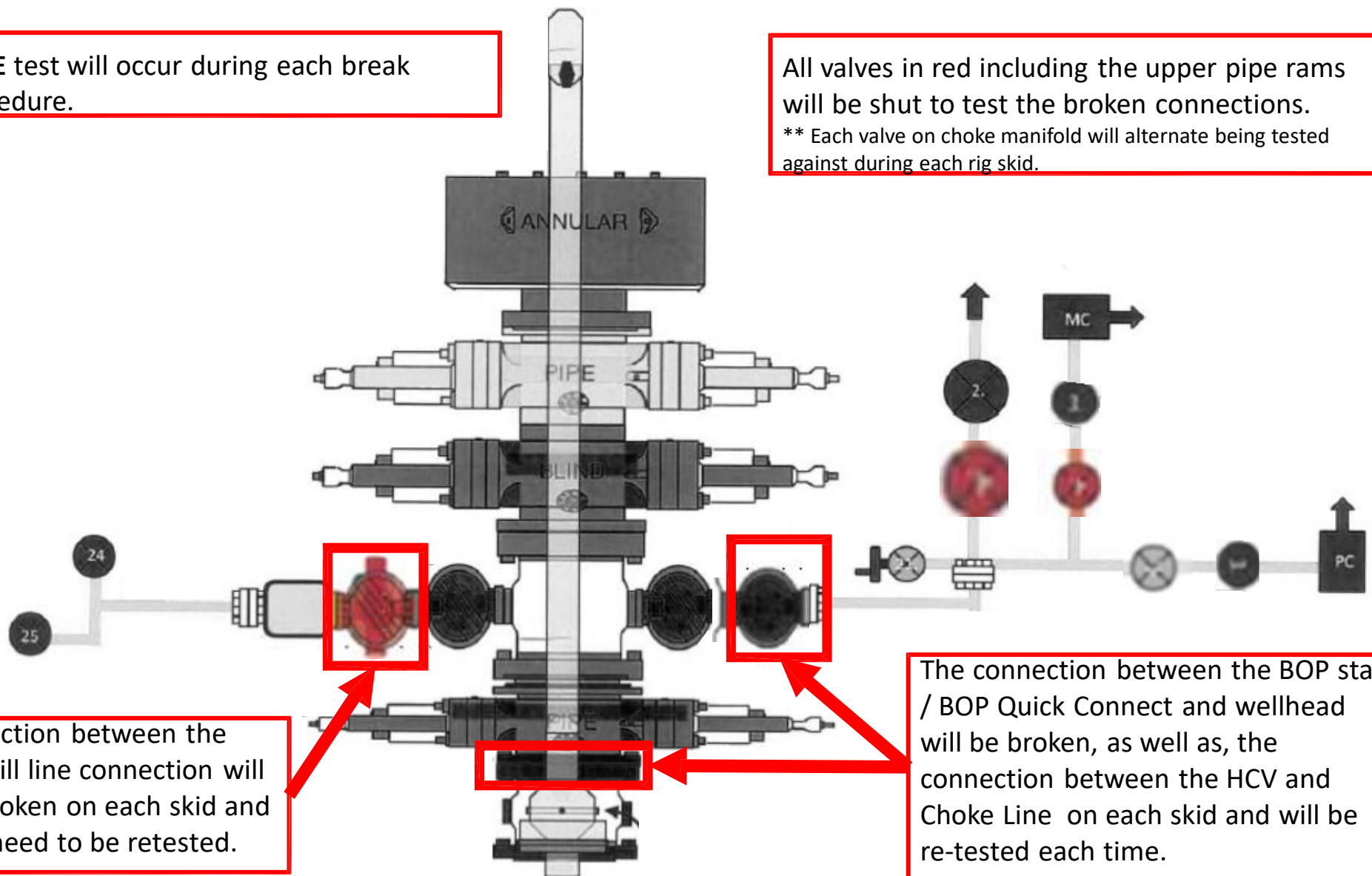
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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

1. After a full BOP test is conducted on the first well on the pad.
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
4. Full BOP test will be required prior to drilling the production hole.

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

All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.



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

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



CACTUS WELLHEAD LLC

(20") x 13-3/8" x 9-5/8" x 6" 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

DRAWING NO. HBE0000833

Well Plan Report - Poker Lake Unit 20 DTD South 220H

Measured Depth: 29687.14 ft

TVD RKB: 11742.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 439669.10 ft

Easting: 632795.90 ft

RKB: 3279.00 ft

Ground Level: 3247.00 ft

North Reference: Grid

Convergence Angle: 0.23 Deg

Plan Sections

Poker Lake Unit 20 DTD South 220H

Measured				TVD			Build	Turn	Dogleg		
Depth	Inclination	Azimuth		RKB	Y Offset	X Offset	Rate	Rate	Rate	Target	
(ft)	(Deg)	(Deg)		(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)		
0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		
1100.00	0.00	0.00		1100.00	0.00	0.00	0.00	0.00	0.00		
1490.88	7.82	358.08		1489.67	26.61	-0.89	2.00	0.00	2.00		
6356.77	7.82	358.08		6310.33	688.09	-23.11	0.00	0.00	0.00		
6747.65	0.00	0.00		6700.00	714.70	-24.00	-2.00	0.00	2.00		
11073.45	0.00	0.00		11025.80	714.70	-24.00	0.00	0.00	0.00		
12198.45	90.00	179.68		11742.00	-1.49	-19.98	8.00	0.00	8.00		
29586.38	90.00	179.68		11742.00	-17389.15	77.74	0.00	0.00	0.00	LTP 9	
29687.14	90.00	179.68		11742.00	-17489.90	78.31	0.00	0.00	0.00	BHL 9	

Position Uncertainty

Poker Lake Unit 20 DTD South 220H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	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	2.442	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	2.484	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	2.529	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	2.579	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	2.632	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	358.077	1199.980	4.932	0.000	4.618	0.000	2.688	0.000	0.000	5.273	4.226	124.236	MWD+IFR1+MS
1300.000	4.000	358.077	1299.838	5.735	0.000	4.975	0.000	2.747	0.000	0.000	6.022	4.634	116.156	MWD+IFR1+MS
1400.000	6.000	358.077	1399.452	6.452	0.000	5.332	0.000	2.813	0.000	0.000	6.727	5.004	112.230	MWD+IFR1+MS
1490.877	7.818	358.077	1489.666	6.988	0.000	5.650	0.000	2.876	0.000	0.000	7.268	5.328	110.434	MWD+IFR1+MS
1500.000	7.818	358.077	1498.704	7.014	0.000	5.680	0.000	2.879	0.000	0.000	7.294	5.360	110.403	MWD+IFR1+MS
1600.000	7.818	358.077	1597.774	7.299	0.000	6.015	0.000	2.948	0.000	0.000	7.572	5.709	110.480	MWD+IFR1+MS
1700.000	7.818	358.077	1696.845	7.608	0.000	6.374	0.000	3.020	0.000	0.000	7.884	6.066	110.958	MWD+IFR1+MS
1800.000	7.818	358.077	1795.915	7.923	0.000	6.734	0.000	3.096	0.000	0.000	8.201	6.424	111.410	MWD+IFR1+MS
1900.000	7.818	358.077	1894.986	8.242	0.000	7.094	0.000	3.174	0.000	0.000	8.522	6.783	111.838	MWD+IFR1+MS
2000.000	7.818	358.077	1994.057	8.565	0.000	7.455	0.000	3.254	0.000	0.000	8.848	7.142	112.244	MWD+IFR1+MS
2100.000	7.818	358.077	2093.127	8.893	0.000	7.816	0.000	3.336	0.000	0.000	9.176	7.501	112.627	MWD+IFR1+MS
2200.000	7.818	358.077	2192.198	9.223	0.000	8.177	0.000	3.421	0.000	0.000	9.508	7.861	112.991	MWD+IFR1+MS
2300.000	7.818	358.077	2291.269	9.557	0.000	8.539	0.000	3.508	0.000	0.000	9.842	8.221	113.334	MWD+IFR1+MS
2400.000	7.818	358.077	2390.339	9.893	0.000	8.901	0.000	3.596	0.000	0.000	10.179	8.582	113.660	MWD+IFR1+MS
2500.000	7.818	358.077	2489.410	10.231	0.000	9.264	0.000	3.686	0.000	0.000	10.517	8.943	113.969	MWD+IFR1+MS
2600.000	7.818	358.077	2588.480	10.572	0.000	9.626	0.000	3.778	0.000	0.000	10.858	9.304	114.261	MWD+IFR1+MS
2700.000	7.818	358.077	2687.551	10.915	0.000	9.989	0.000	3.872	0.000	0.000	11.201	9.665	114.538	MWD+IFR1+MS
2800.000	7.818	358.077	2786.622	11.260	0.000	10.352	0.000	3.967	0.000	0.000	11.545	10.027	114.801	MWD+IFR1+MS
2900.000	7.818	358.077	2885.692	11.606	0.000	10.715	0.000	4.063	0.000	0.000	11.891	10.389	115.050	MWD+IFR1+MS

3000.000	7.818	358.077	2984.763	11.954	0.000	11.078	0.000	4.162	0.000	0.000	12.238	10.751	115.285	MWD+IFR1+MS
3100.000	7.818	358.077	3083.834	12.303	0.000	11.441	0.000	4.262	0.000	0.000	12.586	11.113	115.509	MWD+IFR1+MS
3200.000	7.818	358.077	3182.904	12.653	0.000	11.805	0.000	4.363	0.000	0.000	12.935	11.475	115.721	MWD+IFR1+MS
3300.000	7.818	358.077	3281.975	13.005	0.000	12.168	0.000	4.466	0.000	0.000	13.285	11.838	115.922	MWD+IFR1+MS
3400.000	7.818	358.077	3381.045	13.357	0.000	12.532	0.000	4.570	0.000	0.000	13.637	12.201	116.113	MWD+IFR1+MS
3500.000	7.818	358.077	3480.116	13.711	0.000	12.896	0.000	4.675	0.000	0.000	13.989	12.563	116.294	MWD+IFR1+MS
3600.000	7.818	358.077	3579.187	14.066	0.000	13.260	0.000	4.783	0.000	0.000	14.342	12.926	116.465	MWD+IFR1+MS
3700.000	7.818	358.077	3678.257	14.421	0.000	13.623	0.000	4.891	0.000	0.000	14.696	13.289	116.627	MWD+IFR1+MS
3800.000	7.818	358.077	3777.328	14.777	0.000	13.987	0.000	5.001	0.000	0.000	15.050	13.653	116.781	MWD+IFR1+MS
3900.000	7.818	358.077	3876.399	15.134	0.000	14.351	0.000	5.113	0.000	0.000	15.405	14.016	116.927	MWD+IFR1+MS
4000.000	7.818	358.077	3975.469	15.491	0.000	14.716	0.000	5.226	0.000	0.000	15.761	14.379	117.065	MWD+IFR1+MS
4100.000	7.818	358.077	4074.540	15.850	0.000	15.080	0.000	5.341	0.000	0.000	16.117	14.743	117.196	MWD+IFR1+MS
4200.000	7.818	358.077	4173.610	16.208	0.000	15.444	0.000	5.457	0.000	0.000	16.474	15.106	117.320	MWD+IFR1+MS
4300.000	7.818	358.077	4272.681	16.568	0.000	15.808	0.000	5.575	0.000	0.000	16.831	15.470	117.437	MWD+IFR1+MS
4400.000	7.818	358.077	4371.752	16.927	0.000	16.172	0.000	5.695	0.000	0.000	17.189	15.834	117.548	MWD+IFR1+MS
4500.000	7.818	358.077	4470.822	17.288	0.000	16.537	0.000	5.816	0.000	0.000	17.547	16.198	117.653	MWD+IFR1+MS
4600.000	7.818	358.077	4569.893	17.649	0.000	16.901	0.000	5.939	0.000	0.000	17.906	16.562	117.752	MWD+IFR1+MS
4700.000	7.818	358.077	4668.964	18.010	0.000	17.265	0.000	6.063	0.000	0.000	18.265	16.926	117.846	MWD+IFR1+MS
4800.000	7.818	358.077	4768.034	18.371	0.000	17.630	0.000	6.189	0.000	0.000	18.624	17.290	117.934	MWD+IFR1+MS
4900.000	7.818	358.077	4867.105	18.733	0.000	17.994	0.000	6.317	0.000	0.000	18.984	17.654	118.017	MWD+IFR1+MS
5000.000	7.818	358.077	4966.175	19.096	0.000	18.359	0.000	6.447	0.000	0.000	19.344	18.018	118.096	MWD+IFR1+MS
5100.000	7.818	358.077	5065.246	19.458	0.000	18.723	0.000	6.579	0.000	0.000	19.704	18.382	118.170	MWD+IFR1+MS
5200.000	7.818	358.077	5164.317	19.821	0.000	19.088	0.000	6.712	0.000	0.000	20.064	18.746	118.239	MWD+IFR1+MS
5300.000	7.818	358.077	5263.387	20.185	0.000	19.452	0.000	6.847	0.000	0.000	20.425	19.111	118.304	MWD+IFR1+MS
5400.000	7.818	358.077	5362.458	20.548	0.000	19.817	0.000	6.984	0.000	0.000	20.786	19.475	118.365	MWD+IFR1+MS
5500.000	7.818	358.077	5461.528	20.912	0.000	20.181	0.000	7.123	0.000	0.000	21.148	19.840	118.421	MWD+IFR1+MS
5600.000	7.818	358.077	5560.599	21.276	0.000	20.546	0.000	7.264	0.000	0.000	21.509	20.204	118.475	MWD+IFR1+MS
5700.000	7.818	358.077	5659.670	21.640	0.000	20.911	0.000	7.407	0.000	0.000	21.871	20.569	118.524	MWD+IFR1+MS
5800.000	7.818	358.077	5758.740	22.005	0.000	21.275	0.000	7.552	0.000	0.000	22.233	20.933	118.570	MWD+IFR1+MS
5900.000	7.818	358.077	5857.811	22.370	0.000	21.640	0.000	7.700	0.000	0.000	22.595	21.298	118.612	MWD+IFR1+MS
6000.000	7.818	358.077	5956.882	22.735	0.000	22.005	0.000	7.849	0.000	0.000	22.957	21.662	118.652	MWD+IFR1+MS
6100.000	7.818	358.077	6055.952	23.100	0.000	22.370	0.000	8.000	0.000	0.000	23.320	22.027	118.688	MWD+IFR1+MS
6200.000	7.818	358.077	6155.023	23.465	0.000	22.734	0.000	8.153	0.000	0.000	23.682	22.392	118.721	MWD+IFR1+MS

6300.000	7.818	358.077	6254.093	23.831	0.000	23.099	0.000	8.309	0.000	0.000	24.045	22.757	118.751	MWD+IFR1+MS
6356.769	7.818	358.077	6310.334	24.036	0.000	23.303	0.000	8.398	0.000	0.000	24.246	22.963	118.705	MWD+IFR1+MS
6400.000	6.953	358.077	6353.207	24.199	0.000	23.458	0.000	8.467	0.000	0.000	24.399	23.120	118.639	MWD+IFR1+MS
6500.000	4.953	358.077	6452.662	24.606	0.000	23.816	0.000	8.626	0.000	0.000	24.800	23.485	117.816	MWD+IFR1+MS
6600.000	2.953	358.077	6552.420	25.033	0.000	24.174	0.000	8.785	0.000	0.000	25.249	23.850	116.502	MWD+IFR1+MS
6700.000	0.953	358.077	6652.356	25.424	0.000	24.528	0.000	8.940	0.000	0.000	25.692	24.208	115.384	MWD+IFR1+MS
6747.646	0.000	0.000	6700.000	25.599	0.000	24.652	0.000	9.014	0.000	0.000	25.863	24.375	115.246	MWD+IFR1+MS
6800.000	0.000	0.000	6752.354	25.777	0.000	24.833	0.000	9.094	0.000	0.000	26.039	24.557	115.218	MWD+IFR1+MS
6900.000	0.000	0.000	6852.354	26.115	0.000	25.181	0.000	9.250	0.000	0.000	26.377	24.906	115.276	MWD+IFR1+MS
7000.000	0.000	0.000	6952.354	26.457	0.000	25.532	0.000	9.409	0.000	0.000	26.721	25.256	115.406	MWD+IFR1+MS
7100.000	0.000	0.000	7052.354	26.800	0.000	25.883	0.000	9.570	0.000	0.000	27.065	25.606	115.533	MWD+IFR1+MS
7200.000	0.000	0.000	7152.354	27.143	0.000	26.235	0.000	9.734	0.000	0.000	27.409	25.956	115.658	MWD+IFR1+MS
7300.000	0.000	0.000	7252.354	27.486	0.000	26.587	0.000	9.901	0.000	0.000	27.754	26.307	115.781	MWD+IFR1+MS
7400.000	0.000	0.000	7352.354	27.829	0.000	26.939	0.000	10.070	0.000	0.000	28.099	26.658	115.901	MWD+IFR1+MS
7500.000	0.000	0.000	7452.354	28.173	0.000	27.291	0.000	10.242	0.000	0.000	28.444	27.009	116.020	MWD+IFR1+MS
7600.000	0.000	0.000	7552.354	28.518	0.000	27.643	0.000	10.417	0.000	0.000	28.790	27.360	116.136	MWD+IFR1+MS
7700.000	0.000	0.000	7652.354	28.862	0.000	27.995	0.000	10.595	0.000	0.000	29.136	27.711	116.251	MWD+IFR1+MS
7800.000	0.000	0.000	7752.354	29.207	0.000	28.348	0.000	10.775	0.000	0.000	29.482	28.062	116.364	MWD+IFR1+MS
7900.000	0.000	0.000	7852.354	29.553	0.000	28.701	0.000	10.959	0.000	0.000	29.828	28.414	116.474	MWD+IFR1+MS
8000.000	0.000	0.000	7952.354	29.898	0.000	29.054	0.000	11.145	0.000	0.000	30.175	28.766	116.583	MWD+IFR1+MS
8100.000	0.000	0.000	8052.354	30.244	0.000	29.407	0.000	11.334	0.000	0.000	30.523	29.118	116.690	MWD+IFR1+MS
8200.000	0.000	0.000	8152.354	30.591	0.000	29.760	0.000	11.526	0.000	0.000	30.870	29.470	116.795	MWD+IFR1+MS
8300.000	0.000	0.000	8252.354	30.937	0.000	30.113	0.000	11.721	0.000	0.000	31.218	29.822	116.899	MWD+IFR1+MS
8400.000	0.000	0.000	8352.354	31.284	0.000	30.466	0.000	11.919	0.000	0.000	31.566	30.174	117.000	MWD+IFR1+MS
8500.000	0.000	0.000	8452.354	31.631	0.000	30.820	0.000	12.119	0.000	0.000	31.914	30.527	117.101	MWD+IFR1+MS
8600.000	0.000	0.000	8552.354	31.978	0.000	31.174	0.000	12.323	0.000	0.000	32.262	30.880	117.199	MWD+IFR1+MS
8700.000	0.000	0.000	8652.354	32.326	0.000	31.527	0.000	12.530	0.000	0.000	32.611	31.232	117.296	MWD+IFR1+MS
8800.000	0.000	0.000	8752.354	32.674	0.000	31.881	0.000	12.739	0.000	0.000	32.960	31.585	117.391	MWD+IFR1+MS
8900.000	0.000	0.000	8852.354	33.022	0.000	32.235	0.000	12.952	0.000	0.000	33.309	31.938	117.485	MWD+IFR1+MS
9000.000	0.000	0.000	8952.354	33.370	0.000	32.589	0.000	13.167	0.000	0.000	33.658	32.291	117.578	MWD+IFR1+MS
9100.000	0.000	0.000	9052.354	33.718	0.000	32.943	0.000	13.385	0.000	0.000	34.008	32.645	117.668	MWD+IFR1+MS
9200.000	0.000	0.000	9152.354	34.067	0.000	33.297	0.000	13.607	0.000	0.000	34.357	32.998	117.758	MWD+IFR1+MS
9300.000	0.000	0.000	9252.354	34.416	0.000	33.652	0.000	13.831	0.000	0.000	34.707	33.351	117.846	MWD+IFR1+MS

9400.000	0.000	0.000	9352.354	34.765	0.000	34.006	0.000	14.058	0.000	0.000	35.057	33.705	117.933	MWD+IFR1+MS
9500.000	0.000	0.000	9452.354	35.114	0.000	34.361	0.000	14.289	0.000	0.000	35.407	34.058	118.018	MWD+IFR1+MS
9600.000	0.000	0.000	9552.354	35.464	0.000	34.715	0.000	14.522	0.000	0.000	35.758	34.412	118.102	MWD+IFR1+MS
9700.000	0.000	0.000	9652.354	35.813	0.000	35.070	0.000	14.758	0.000	0.000	36.108	34.766	118.185	MWD+IFR1+MS
9800.000	0.000	0.000	9752.354	36.163	0.000	35.425	0.000	14.998	0.000	0.000	36.459	35.120	118.267	MWD+IFR1+MS
9900.000	0.000	0.000	9852.354	36.513	0.000	35.779	0.000	15.240	0.000	0.000	36.810	35.474	118.347	MWD+IFR1+MS
10000.000	0.000	0.000	9952.354	36.863	0.000	36.134	0.000	15.486	0.000	0.000	37.161	35.828	118.427	MWD+IFR1+MS
10100.000	0.000	0.000	10052.354	37.213	0.000	36.489	0.000	15.734	0.000	0.000	37.512	36.182	118.505	MWD+IFR1+MS
10200.000	0.000	0.000	10152.354	37.564	0.000	36.844	0.000	15.986	0.000	0.000	37.863	36.536	118.582	MWD+IFR1+MS
10300.000	0.000	0.000	10252.354	37.914	0.000	37.199	0.000	16.240	0.000	0.000	38.215	36.891	118.658	MWD+IFR1+MS
10400.000	0.000	0.000	10352.354	38.265	0.000	37.554	0.000	16.498	0.000	0.000	38.566	37.245	118.732	MWD+IFR1+MS
10500.000	0.000	0.000	10452.354	38.616	0.000	37.910	0.000	16.759	0.000	0.000	38.918	37.599	118.806	MWD+IFR1+MS
10600.000	0.000	0.000	10552.354	38.967	0.000	38.265	0.000	17.022	0.000	0.000	39.270	37.954	118.879	MWD+IFR1+MS
10700.000	0.000	0.000	10652.354	39.318	0.000	38.620	0.000	17.289	0.000	0.000	39.622	38.309	118.950	MWD+IFR1+MS
10800.000	0.000	0.000	10752.354	39.669	0.000	38.976	0.000	17.559	0.000	0.000	39.974	38.663	119.021	MWD+IFR1+MS
10900.000	0.000	0.000	10852.354	40.021	0.000	39.331	0.000	17.832	0.000	0.000	40.326	39.018	119.090	MWD+IFR1+MS
11000.000	0.000	0.000	10952.354	40.372	0.000	39.687	0.000	18.108	0.000	0.000	40.678	39.373	119.159	MWD+IFR1+MS
11073.446	0.000	0.000	11025.800	40.629	0.000	39.946	0.000	18.312	0.000	0.000	40.934	39.633	119.175	MWD+IFR1+MS
11100.000	2.124	179.678	11052.348	40.604	0.000	40.041	-0.000	18.387	0.000	0.000	41.021	39.723	119.157	MWD+IFR1+MS
11200.000	10.124	179.678	11151.697	40.532	0.000	40.349	-0.000	18.679	0.000	0.000	41.666	40.093	113.261	MWD+IFR1+MS
11300.000	18.124	179.678	11248.595	40.482	0.000	40.642	-0.000	19.073	0.000	0.000	42.830	40.455	105.751	MWD+IFR1+MS
11400.000	26.124	179.678	11341.156	39.859	0.000	40.912	-0.000	19.625	0.000	0.000	43.892	40.750	102.575	MWD+IFR1+MS
11500.000	34.124	179.678	11427.580	38.740	0.000	41.156	-0.000	20.379	0.000	0.000	44.802	41.003	101.004	MWD+IFR1+MS
11600.000	42.124	179.678	11506.183	37.232	0.000	41.373	-0.000	21.354	0.000	0.000	45.543	41.222	100.190	MWD+IFR1+MS
11700.000	50.124	179.678	11575.437	35.475	0.000	41.561	-0.000	22.540	0.000	0.000	46.111	41.408	99.800	MWD+IFR1+MS
11800.000	58.124	179.678	11633.992	33.649	0.000	41.720	-0.000	23.908	0.000	0.000	46.513	41.562	99.673	MWD+IFR1+MS
11900.000	66.124	179.678	11680.709	31.973	0.000	41.848	-0.000	25.413	0.000	0.000	46.770	41.684	99.714	MWD+IFR1+MS
12000.000	74.124	179.678	11714.680	30.693	0.000	41.946	-0.000	27.003	0.000	0.000	46.908	41.776	99.850	MWD+IFR1+MS
12100.000	82.124	179.678	11735.242	30.046	0.000	42.012	-0.000	28.623	0.000	0.000	46.961	41.838	100.005	MWD+IFR1+MS
12198.446	90.000	179.678	11741.997	30.152	0.000	42.047	-0.000	30.152	0.000	0.000	46.972	41.871	100.089	MWD+IFR1+MS
12200.000	90.000	179.678	11741.997	30.154	0.000	42.047	-0.000	30.154	0.000	0.000	46.973	41.871	100.088	MWD+IFR1+MS
12300.000	90.000	179.678	11741.997	30.300	0.000	42.071	-0.000	30.300	0.000	0.000	46.976	41.895	100.118	MWD+IFR1+MS
12400.000	90.000	179.678	11741.997	30.470	0.000	42.113	-0.000	30.470	0.000	0.000	46.981	41.935	100.180	MWD+IFR1+MS

12500.000	90.000	179.678	11741.997	30.659	0.000	42.168	-0.000	30.659	0.000	0.000	46.986	41.989	100.268	MWD+IFR1+MS
12600.000	90.000	179.678	11741.997	30.867	0.000	42.237	-0.000	30.867	0.000	0.000	46.993	42.057	100.385	MWD+IFR1+MS
12700.000	90.000	179.678	11741.997	31.093	0.000	42.319	-0.000	31.093	0.000	0.000	47.001	42.137	100.531	MWD+IFR1+MS
12800.000	90.000	179.678	11741.997	31.338	0.000	42.416	-0.000	31.338	0.000	0.000	47.010	42.231	100.710	MWD+IFR1+MS
12900.000	90.000	179.678	11741.997	31.600	0.000	42.525	-0.000	31.600	0.000	0.000	47.020	42.338	100.924	MWD+IFR1+MS
13000.000	90.000	179.678	11741.997	31.879	0.000	42.649	-0.000	31.879	0.000	0.000	47.031	42.458	101.176	MWD+IFR1+MS
13100.000	90.000	179.678	11741.997	32.175	0.000	42.785	-0.000	32.175	0.000	0.000	47.044	42.590	101.472	MWD+IFR1+MS
13200.000	90.000	179.678	11741.997	32.487	0.000	42.935	-0.000	32.487	0.000	0.000	47.058	42.735	101.817	MWD+IFR1+MS
13300.000	90.000	179.678	11741.997	32.815	0.000	43.098	-0.000	32.815	0.000	0.000	47.073	42.892	102.218	MWD+IFR1+MS
13400.000	90.000	179.678	11741.997	33.158	0.000	43.274	-0.000	33.158	0.000	0.000	47.090	43.061	102.684	MWD+IFR1+MS
13500.000	90.000	179.678	11741.997	33.516	0.000	43.463	-0.000	33.516	0.000	0.000	47.109	43.242	103.225	MWD+IFR1+MS
13600.000	90.000	179.678	11741.997	33.888	0.000	43.664	-0.000	33.888	0.000	0.000	47.130	43.433	103.856	MWD+IFR1+MS
13700.000	90.000	179.678	11741.997	34.275	0.000	43.878	-0.000	34.275	0.000	0.000	47.153	43.636	104.593	MWD+IFR1+MS
13800.000	90.000	179.678	11741.997	34.675	0.000	44.104	-0.000	34.675	0.000	0.000	47.179	43.849	105.461	MWD+IFR1+MS
13900.000	90.000	179.678	11741.997	35.088	0.000	44.342	-0.000	35.088	0.000	0.000	47.208	44.071	106.486	MWD+IFR1+MS
14000.000	90.000	179.678	11741.997	35.513	0.000	44.592	-0.000	35.513	0.000	0.000	47.241	44.302	107.706	MWD+IFR1+MS
14100.000	90.000	179.678	11741.997	35.951	0.000	44.853	-0.000	35.951	0.000	0.000	47.279	44.540	109.171	MWD+IFR1+MS
14200.000	90.000	179.678	11741.997	36.400	0.000	45.126	-0.000	36.400	0.000	0.000	47.323	44.784	110.943	MWD+IFR1+MS
14300.000	90.000	179.678	11741.997	36.860	0.000	45.411	-0.000	36.860	0.000	0.000	47.375	45.032	113.102	MWD+IFR1+MS
14400.000	90.000	179.678	11741.997	37.331	0.000	45.706	-0.000	37.331	0.000	0.000	47.437	45.282	115.745	MWD+IFR1+MS
14500.000	90.000	179.678	11741.997	37.813	0.000	46.012	-0.000	37.813	0.000	0.000	47.514	45.529	118.983	MWD+IFR1+MS
14600.000	90.000	179.678	11741.997	38.305	0.000	46.329	-0.000	38.305	0.000	0.000	47.608	45.769	122.914	MWD+IFR1+MS
14700.000	90.000	179.678	11741.997	38.806	0.000	46.656	-0.000	38.806	0.000	0.000	47.727	45.995	127.574	MWD+IFR1+MS
14800.000	90.000	179.678	11741.997	39.317	0.000	46.994	-0.000	39.317	0.000	0.000	47.877	46.202	132.859	MWD+IFR1+MS
14900.000	90.000	179.678	11741.997	39.836	0.000	47.341	-0.000	39.836	0.000	0.000	48.062	46.384	-41.521	MWD+IFR1+MS
15000.000	90.000	179.678	11741.997	40.364	0.000	47.698	-0.000	40.364	0.000	0.000	48.285	46.538	-35.984	MWD+IFR1+MS
15100.000	90.000	179.678	11741.997	40.901	0.000	48.065	-0.000	40.901	0.000	0.000	48.545	46.666	-30.915	MWD+IFR1+MS
15200.000	90.000	179.678	11741.997	41.445	0.000	48.441	-0.000	41.445	0.000	0.000	48.837	46.771	-26.531	MWD+IFR1+MS
15300.000	90.000	179.678	11741.997	41.997	0.000	48.826	-0.000	41.997	0.000	0.000	49.158	46.857	-22.869	MWD+IFR1+MS
15400.000	90.000	179.678	11741.997	42.556	0.000	49.220	-0.000	42.556	0.000	0.000	49.501	46.930	-19.862	MWD+IFR1+MS
15500.000	90.000	179.678	11741.997	43.122	0.000	49.623	-0.000	43.122	0.000	0.000	49.864	46.993	-17.402	MWD+IFR1+MS
15600.000	90.000	179.678	11741.997	43.695	0.000	50.034	-0.000	43.695	0.000	0.000	50.244	47.049	-15.383	MWD+IFR1+MS
15700.000	90.000	179.678	11741.997	44.274	0.000	50.454	-0.000	44.274	0.000	0.000	50.637	47.099	-13.714	MWD+IFR1+MS

15800.000	90.000	179.678	11741.997	44.860	0.000	50.881	-0.000	44.860	0.000	0.000	51.044	47.145	-12.322	MWD+IFR1+MS
15900.000	90.000	179.678	11741.997	45.452	0.000	51.317	-0.000	45.452	0.000	0.000	51.462	47.188	-11.148	MWD+IFR1+MS
16000.000	90.000	179.678	11741.997	46.049	0.000	51.760	-0.000	46.049	0.000	0.000	51.890	47.229	-10.151	MWD+IFR1+MS
16100.000	90.000	179.678	11741.997	46.652	0.000	52.210	-0.000	46.652	0.000	0.000	52.328	47.269	-9.295	MWD+IFR1+MS
16200.000	90.000	179.678	11741.997	47.261	0.000	52.668	-0.000	47.261	0.000	0.000	52.775	47.307	-8.554	MWD+IFR1+MS
16300.000	90.000	179.678	11741.997	47.874	0.000	53.133	-0.000	47.874	0.000	0.000	53.230	47.344	-7.909	MWD+IFR1+MS
16400.000	90.000	179.678	11741.997	48.493	0.000	53.605	-0.000	48.493	0.000	0.000	53.694	47.381	-7.342	MWD+IFR1+MS
16500.000	90.000	179.678	11741.997	49.116	0.000	54.083	-0.000	49.116	0.000	0.000	54.165	47.417	-6.841	MWD+IFR1+MS
16600.000	90.000	179.678	11741.997	49.744	0.000	54.569	-0.000	49.744	0.000	0.000	54.644	47.454	-6.396	MWD+IFR1+MS
16700.000	90.000	179.678	11741.997	50.376	0.000	55.060	-0.000	50.376	0.000	0.000	55.130	47.490	-5.999	MWD+IFR1+MS
16800.000	90.000	179.678	11741.997	51.012	0.000	55.558	-0.000	51.012	0.000	0.000	55.622	47.526	-5.642	MWD+IFR1+MS
16900.000	90.000	179.678	11741.997	51.653	0.000	56.061	-0.000	51.653	0.000	0.000	56.121	47.562	-5.320	MWD+IFR1+MS
17000.000	90.000	179.678	11741.997	52.297	0.000	56.571	-0.000	52.297	0.000	0.000	56.627	47.598	-5.028	MWD+IFR1+MS
17100.000	90.000	179.678	11741.997	52.945	0.000	57.086	-0.000	52.945	0.000	0.000	57.138	47.634	-4.763	MWD+IFR1+MS
17200.000	90.000	179.678	11741.997	53.597	0.000	57.607	-0.000	53.597	0.000	0.000	57.656	47.671	-4.521	MWD+IFR1+MS
17300.000	90.000	179.678	11741.997	54.253	0.000	58.133	-0.000	54.253	0.000	0.000	58.179	47.708	-4.299	MWD+IFR1+MS
17400.000	90.000	179.678	11741.997	54.911	0.000	58.665	-0.000	54.911	0.000	0.000	58.708	47.745	-4.096	MWD+IFR1+MS
17500.000	90.000	179.678	11741.997	55.573	0.000	59.201	-0.000	55.573	0.000	0.000	59.242	47.783	-3.908	MWD+IFR1+MS
17600.000	90.000	179.678	11741.997	56.239	0.000	59.743	-0.000	56.239	0.000	0.000	59.781	47.821	-3.736	MWD+IFR1+MS
17700.000	90.000	179.678	11741.997	56.907	0.000	60.290	-0.000	56.907	0.000	0.000	60.326	47.859	-3.575	MWD+IFR1+MS
17800.000	90.000	179.678	11741.997	57.578	0.000	60.841	-0.000	57.578	0.000	0.000	60.875	47.898	-3.427	MWD+IFR1+MS
17900.000	90.000	179.678	11741.997	58.252	0.000	61.397	-0.000	58.252	0.000	0.000	61.429	47.937	-3.289	MWD+IFR1+MS
18000.000	90.000	179.678	11741.997	58.929	0.000	61.957	-0.000	58.929	0.000	0.000	61.987	47.977	-3.160	MWD+IFR1+MS
18100.000	90.000	179.678	11741.997	59.608	0.000	62.522	-0.000	59.608	0.000	0.000	62.550	48.017	-3.040	MWD+IFR1+MS
18200.000	90.000	179.678	11741.997	60.290	0.000	63.090	-0.000	60.290	0.000	0.000	63.118	48.057	-2.928	MWD+IFR1+MS
18300.000	90.000	179.678	11741.997	60.975	0.000	63.663	-0.000	60.975	0.000	0.000	63.690	48.098	-2.823	MWD+IFR1+MS
18400.000	90.000	179.678	11741.997	61.662	0.000	64.241	-0.000	61.662	0.000	0.000	64.265	48.140	-2.724	MWD+IFR1+MS
18500.000	90.000	179.678	11741.997	62.351	0.000	64.821	-0.000	62.351	0.000	0.000	64.845	48.182	-2.631	MWD+IFR1+MS
18600.000	90.000	179.678	11741.997	63.042	0.000	65.406	-0.000	63.042	0.000	0.000	65.429	48.224	-2.544	MWD+IFR1+MS
18700.000	90.000	179.678	11741.997	63.736	0.000	65.995	-0.000	63.736	0.000	0.000	66.016	48.267	-2.461	MWD+IFR1+MS
18800.000	90.000	179.678	11741.997	64.431	0.000	66.587	-0.000	64.431	0.000	0.000	66.607	48.311	-2.384	MWD+IFR1+MS
18900.000	90.000	179.678	11741.997	65.129	0.000	67.182	-0.000	65.129	0.000	0.000	67.202	48.355	-2.310	MWD+IFR1+MS
19000.000	90.000	179.678	11741.997	65.829	0.000	67.781	-0.000	65.829	0.000	0.000	67.800	48.399	-2.241	MWD+IFR1+MS

19100.000	90.000	179.678	11741.997	66.530	0.000	68.383	-0.000	66.530	0.000	0.000	68.401	48.444	-2.175	MWD+IFR1+MS
19200.000	90.000	179.678	11741.997	67.234	0.000	68.989	-0.000	67.234	0.000	0.000	69.006	48.490	-2.113	MWD+IFR1+MS
19300.000	90.000	179.678	11741.997	67.939	0.000	69.598	-0.000	67.939	0.000	0.000	69.614	48.536	-2.054	MWD+IFR1+MS
19400.000	90.000	179.678	11741.997	68.646	0.000	70.209	-0.000	68.646	0.000	0.000	70.225	48.582	-1.997	MWD+IFR1+MS
19500.000	90.000	179.678	11741.997	69.354	0.000	70.824	-0.000	69.354	0.000	0.000	70.839	48.629	-1.944	MWD+IFR1+MS
19600.000	90.000	179.678	11741.997	70.065	0.000	71.442	-0.000	70.065	0.000	0.000	71.456	48.677	-1.893	MWD+IFR1+MS
19700.000	90.000	179.678	11741.997	70.776	0.000	72.062	-0.000	70.776	0.000	0.000	72.076	48.725	-1.844	MWD+IFR1+MS
19800.000	90.000	179.678	11741.997	71.490	0.000	72.686	-0.000	71.490	0.000	0.000	72.699	48.774	-1.798	MWD+IFR1+MS
19900.000	90.000	179.678	11741.997	72.204	0.000	73.312	-0.000	72.204	0.000	0.000	73.324	48.823	-1.754	MWD+IFR1+MS
20000.000	90.000	179.678	11741.997	72.921	0.000	73.940	-0.000	72.921	0.000	0.000	73.952	48.872	-1.712	MWD+IFR1+MS
20100.000	90.000	179.678	11741.997	73.638	0.000	74.571	-0.000	73.638	0.000	0.000	74.583	48.923	-1.671	MWD+IFR1+MS
20200.000	90.000	179.678	11741.997	74.357	0.000	75.205	-0.000	74.357	0.000	0.000	75.216	48.973	-1.633	MWD+IFR1+MS
20300.000	90.000	179.678	11741.997	75.078	0.000	75.841	-0.000	75.078	0.000	0.000	75.852	49.025	-1.596	MWD+IFR1+MS
20400.000	90.000	179.678	11741.997	75.799	0.000	76.479	-0.000	75.799	0.000	0.000	76.490	49.076	-1.561	MWD+IFR1+MS
20500.000	90.000	179.678	11741.997	76.522	0.000	77.120	-0.000	76.522	0.000	0.000	77.130	49.129	-1.527	MWD+IFR1+MS
20600.000	90.000	179.678	11741.997	77.246	0.000	77.763	-0.000	77.246	0.000	0.000	77.773	49.181	-1.494	MWD+IFR1+MS
20700.000	90.000	179.678	11741.997	77.971	0.000	78.408	-0.000	77.971	0.000	0.000	78.418	49.235	-1.463	MWD+IFR1+MS
20800.000	90.000	179.678	11741.997	78.697	0.000	79.056	-0.000	78.697	0.000	0.000	79.065	49.288	-1.433	MWD+IFR1+MS
20900.000	90.000	179.678	11741.997	79.425	0.000	79.705	-0.000	79.425	0.000	0.000	79.714	49.343	-1.404	MWD+IFR1+MS
21000.000	90.000	179.678	11741.997	80.153	0.000	80.357	-0.000	80.153	0.000	0.000	80.365	49.398	-1.377	MWD+IFR1+MS
21100.000	90.000	179.678	11741.997	80.883	0.000	81.010	-0.000	80.883	0.000	0.000	81.018	49.453	-1.350	MWD+IFR1+MS
21200.000	90.000	179.678	11741.997	81.614	0.000	81.666	-0.000	81.614	0.000	0.000	81.674	49.509	-1.324	MWD+IFR1+MS
21300.000	90.000	179.678	11741.997	82.345	0.000	82.323	-0.000	82.345	0.000	0.000	82.331	49.565	-1.300	MWD+IFR1+MS
21400.000	90.000	179.678	11741.997	83.078	0.000	82.982	-0.000	83.078	0.000	0.000	82.990	49.622	-1.276	MWD+IFR1+MS
21500.000	90.000	179.678	11741.997	83.811	0.000	83.643	-0.000	83.811	0.000	0.000	83.650	49.679	-1.253	MWD+IFR1+MS
21600.000	90.000	179.678	11741.997	84.546	0.000	84.306	-0.000	84.546	0.000	0.000	84.313	49.737	-1.231	MWD+IFR1+MS
21700.000	90.000	179.678	11741.997	85.281	0.000	84.971	-0.000	85.281	0.000	0.000	84.977	49.796	-1.209	MWD+IFR1+MS
21800.000	90.000	179.678	11741.997	86.017	0.000	85.637	-0.000	86.017	0.000	0.000	85.643	49.855	-1.189	MWD+IFR1+MS
21900.000	90.000	179.678	11741.997	86.755	0.000	86.305	-0.000	86.755	0.000	0.000	86.311	49.914	-1.169	MWD+IFR1+MS
22000.000	90.000	179.678	11741.997	87.492	0.000	86.974	-0.000	87.492	0.000	0.000	86.980	49.974	-1.150	MWD+IFR1+MS
22100.000	90.000	179.678	11741.997	88.231	0.000	87.645	-0.000	88.231	0.000	0.000	87.651	50.035	-1.131	MWD+IFR1+MS
22200.000	90.000	179.678	11741.997	88.971	0.000	88.318	-0.000	88.971	0.000	0.000	88.324	50.096	-1.113	MWD+IFR1+MS
22300.000	90.000	179.678	11741.997	89.711	0.000	88.992	-0.000	89.711	0.000	0.000	88.997	50.157	-1.096	MWD+IFR1+MS

22400.000	90.000	179.678	11741.997	90.452	0.000	89.667	-0.000	90.452	0.000	0.000	89.673	50.219	-1.079	MWD+IFR1+MS
22500.000	90.000	179.678	11741.997	91.194	0.000	90.344	-0.000	91.194	0.000	0.000	90.350	50.281	-1.062	MWD+IFR1+MS
22600.000	90.000	179.678	11741.997	91.936	0.000	91.023	-0.000	91.936	0.000	0.000	91.028	50.344	-1.047	MWD+IFR1+MS
22700.000	90.000	179.678	11741.997	92.679	0.000	91.703	-0.000	92.679	0.000	0.000	91.708	50.408	-1.031	MWD+IFR1+MS
22800.000	90.000	179.678	11741.997	93.423	0.000	92.384	-0.000	93.423	0.000	0.000	92.388	50.472	-1.017	MWD+IFR1+MS
22900.000	90.000	179.678	11741.997	94.168	0.000	93.066	-0.000	94.168	0.000	0.000	93.071	50.536	-1.002	MWD+IFR1+MS
23000.000	90.000	179.678	11741.997	94.913	0.000	93.750	-0.000	94.913	0.000	0.000	93.754	50.601	-0.988	MWD+IFR1+MS
23100.000	90.000	179.678	11741.997	95.659	0.000	94.435	-0.000	95.659	0.000	0.000	94.439	50.666	-0.975	MWD+IFR1+MS
23200.000	90.000	179.678	11741.997	96.405	0.000	95.121	-0.000	96.405	0.000	0.000	95.125	50.732	-0.962	MWD+IFR1+MS
23300.000	90.000	179.678	11741.997	97.152	0.000	95.808	-0.000	97.152	0.000	0.000	95.813	50.799	-0.949	MWD+IFR1+MS
23400.000	90.000	179.678	11741.997	97.900	0.000	96.497	-0.000	97.900	0.000	0.000	96.501	50.865	-0.937	MWD+IFR1+MS
23500.000	90.000	179.678	11741.997	98.648	0.000	97.187	-0.000	98.648	0.000	0.000	97.191	50.933	-0.925	MWD+IFR1+MS
23600.000	90.000	179.678	11741.997	99.397	0.000	97.878	-0.000	99.397	0.000	0.000	97.881	51.000	-0.913	MWD+IFR1+MS
23700.000	90.000	179.678	11741.997	100.146	0.000	98.570	-0.000	100.146	0.000	0.000	98.573	51.069	-0.902	MWD+IFR1+MS
23800.000	90.000	179.678	11741.997	100.896	0.000	99.263	-0.000	100.896	0.000	0.000	99.266	51.137	-0.891	MWD+IFR1+MS
23900.000	90.000	179.678	11741.997	101.646	0.000	99.957	-0.000	101.646	0.000	0.000	99.960	51.207	-0.880	MWD+IFR1+MS
24000.000	90.000	179.678	11741.997	102.397	0.000	100.652	-0.000	102.397	0.000	0.000	100.655	51.276	-0.870	MWD+IFR1+MS
24100.000	90.000	179.678	11741.997	103.148	0.000	101.348	-0.000	103.148	0.000	0.000	101.351	51.347	-0.859	MWD+IFR1+MS
24200.000	90.000	179.678	11741.997	103.900	0.000	102.045	-0.000	103.900	0.000	0.000	102.048	51.417	-0.850	MWD+IFR1+MS
24300.000	90.000	179.678	11741.997	104.653	0.000	102.743	-0.000	104.653	0.000	0.000	102.746	51.488	-0.840	MWD+IFR1+MS
24400.000	90.000	179.678	11741.997	105.405	0.000	103.442	-0.000	105.405	0.000	0.000	103.445	51.560	-0.831	MWD+IFR1+MS
24500.000	90.000	179.678	11741.997	106.159	0.000	104.142	-0.000	106.159	0.000	0.000	104.145	51.632	-0.822	MWD+IFR1+MS
24600.000	90.000	179.678	11741.997	106.912	0.000	104.843	-0.000	106.912	0.000	0.000	104.846	51.704	-0.813	MWD+IFR1+MS
24700.000	90.000	179.678	11741.997	107.667	0.000	105.545	-0.000	107.667	0.000	0.000	105.548	51.777	-0.804	MWD+IFR1+MS
24800.000	90.000	179.678	11741.997	108.421	0.000	106.248	-0.000	108.421	0.000	0.000	106.251	51.851	-0.796	MWD+IFR1+MS
24900.000	90.000	179.678	11741.997	109.176	0.000	106.951	-0.000	109.176	0.000	0.000	106.954	51.925	-0.787	MWD+IFR1+MS
25000.000	90.000	179.678	11741.997	109.932	0.000	107.656	-0.000	109.932	0.000	0.000	107.658	51.999	-0.779	MWD+IFR1+MS
25100.000	90.000	179.678	11741.997	110.688	0.000	108.361	-0.000	110.688	0.000	0.000	108.364	52.074	-0.772	MWD+IFR1+MS
25200.000	90.000	179.678	11741.997	111.444	0.000	109.067	-0.000	111.444	0.000	0.000	109.070	52.149	-0.764	MWD+IFR1+MS
25300.000	90.000	179.678	11741.997	112.201	0.000	109.774	-0.000	112.201	0.000	0.000	109.776	52.225	-0.757	MWD+IFR1+MS
25400.000	90.000	179.678	11741.997	112.958	0.000	110.482	-0.000	112.958	0.000	0.000	110.484	52.301	-0.749	MWD+IFR1+MS
25500.000	90.000	179.678	11741.997	113.715	0.000	111.190	-0.000	113.715	0.000	0.000	111.192	52.377	-0.742	MWD+IFR1+MS
25600.000	90.000	179.678	11741.997	114.473	0.000	111.899	-0.000	114.473	0.000	0.000	111.901	52.454	-0.735	MWD+IFR1+MS

25700.000	90.000	179.678	11741.997	115.231	0.000	112.609	-0.000	115.231	0.000	0.000	112.611	52.532	-0.729	MWD+IFR1+MS
25800.000	90.000	179.678	11741.997	115.990	0.000	113.320	-0.000	115.990	0.000	0.000	113.322	52.609	-0.722	MWD+IFR1+MS
25900.000	90.000	179.678	11741.997	116.749	0.000	114.031	-0.000	116.749	0.000	0.000	114.033	52.688	-0.716	MWD+IFR1+MS
26000.000	90.000	179.678	11741.997	117.508	0.000	114.743	-0.000	117.508	0.000	0.000	114.745	52.767	-0.709	MWD+IFR1+MS
26100.000	90.000	179.678	11741.997	118.267	0.000	115.456	-0.000	118.267	0.000	0.000	115.458	52.846	-0.703	MWD+IFR1+MS
26200.000	90.000	179.678	11741.997	119.027	0.000	116.169	-0.000	119.027	0.000	0.000	116.171	52.925	-0.697	MWD+IFR1+MS
26300.000	90.000	179.678	11741.997	119.787	0.000	116.883	-0.000	119.787	0.000	0.000	116.885	53.005	-0.691	MWD+IFR1+MS
26400.000	90.000	179.678	11741.997	120.548	0.000	117.598	-0.000	120.548	0.000	0.000	117.600	53.086	-0.686	MWD+IFR1+MS
26500.000	90.000	179.678	11741.997	121.309	0.000	118.313	-0.000	121.309	0.000	0.000	118.315	53.167	-0.680	MWD+IFR1+MS
26600.000	90.000	179.678	11741.997	122.070	0.000	119.029	-0.000	122.070	0.000	0.000	119.031	53.248	-0.675	MWD+IFR1+MS
26700.000	90.000	179.678	11741.997	122.831	0.000	119.746	-0.000	122.831	0.000	0.000	119.748	53.330	-0.669	MWD+IFR1+MS
26800.000	90.000	179.678	11741.997	123.593	0.000	120.463	-0.000	123.593	0.000	0.000	120.465	53.412	-0.664	MWD+IFR1+MS
26900.000	90.000	179.678	11741.997	124.355	0.000	121.181	-0.000	124.355	0.000	0.000	121.182	53.494	-0.659	MWD+IFR1+MS
27000.000	90.000	179.678	11741.997	125.117	0.000	121.899	-0.000	125.117	0.000	0.000	121.901	53.577	-0.654	MWD+IFR1+MS
27100.000	90.000	179.678	11741.997	125.880	0.000	122.618	-0.000	125.880	0.000	0.000	122.620	53.661	-0.649	MWD+IFR1+MS
27200.000	90.000	179.678	11741.997	126.643	0.000	123.337	-0.000	126.643	0.000	0.000	123.339	53.745	-0.644	MWD+IFR1+MS
27300.000	90.000	179.678	11741.997	127.406	0.000	124.058	-0.000	127.406	0.000	0.000	124.059	53.829	-0.639	MWD+IFR1+MS
27400.000	90.000	179.678	11741.997	128.169	0.000	124.778	-0.000	128.169	0.000	0.000	124.780	53.914	-0.635	MWD+IFR1+MS
27500.000	90.000	179.678	11741.997	128.933	0.000	125.499	-0.000	128.933	0.000	0.000	125.501	53.999	-0.630	MWD+IFR1+MS
27600.000	90.000	179.678	11741.997	129.696	0.000	126.221	-0.000	129.696	0.000	0.000	126.222	54.084	-0.626	MWD+IFR1+MS
27700.000	90.000	179.678	11741.997	130.461	0.000	126.943	-0.000	130.461	0.000	0.000	126.944	54.170	-0.622	MWD+IFR1+MS
27800.000	90.000	179.678	11741.997	131.225	0.000	127.666	-0.000	131.225	0.000	0.000	127.667	54.256	-0.617	MWD+IFR1+MS
27900.000	90.000	179.678	11741.997	131.989	0.000	128.389	-0.000	131.989	0.000	0.000	128.390	54.343	-0.613	MWD+IFR1+MS
28000.000	90.000	179.678	11741.997	132.754	0.000	129.112	-0.000	132.754	0.000	0.000	129.114	54.430	-0.609	MWD+IFR1+MS
28100.000	90.000	179.678	11741.997	133.519	0.000	129.837	-0.000	133.519	0.000	0.000	129.838	54.517	-0.605	MWD+IFR1+MS
28200.000	90.000	179.678	11741.997	134.285	0.000	130.561	-0.000	134.285	0.000	0.000	130.562	54.605	-0.601	MWD+IFR1+MS
28300.000	90.000	179.678	11741.997	135.050	0.000	131.286	-0.000	135.050	0.000	0.000	131.288	54.693	-0.597	MWD+IFR1+MS
28400.000	90.000	179.678	11741.997	135.816	0.000	132.012	-0.000	135.816	0.000	0.000	132.013	54.782	-0.594	MWD+IFR1+MS
28500.000	90.000	179.678	11741.997	136.582	0.000	132.738	-0.000	136.582	0.000	0.000	132.739	54.871	-0.590	MWD+IFR1+MS
28600.000	90.000	179.678	11741.997	137.348	0.000	133.464	-0.000	137.348	0.000	0.000	133.465	54.960	-0.586	MWD+IFR1+MS
28700.000	90.000	179.678	11741.997	138.114	0.000	134.191	-0.000	138.114	0.000	0.000	134.192	55.050	-0.583	MWD+IFR1+MS
28800.000	90.000	179.678	11741.997	138.881	0.000	134.918	-0.000	138.881	0.000	0.000	134.919	55.140	-0.579	MWD+IFR1+MS
28900.000	90.000	179.678	11741.997	139.648	0.000	135.646	-0.000	139.648	0.000	0.000	135.647	55.231	-0.576	MWD+IFR1+MS

29000.000	90.000	179.678	11741.997	140.415	0.000	136.374	-0.000	140.415	0.000	0.000	136.375	55.322	-0.573	MWD+IFR1+MS
29100.000	90.000	179.678	11741.997	141.182	0.000	137.103	-0.000	141.182	0.000	0.000	137.104	55.413	-0.569	MWD+IFR1+MS
29200.000	90.000	179.678	11741.997	141.949	0.000	137.832	-0.000	141.949	0.000	0.000	137.833	55.505	-0.566	MWD+IFR1+MS
29300.000	90.000	179.678	11741.997	142.717	0.000	138.561	-0.000	142.717	0.000	0.000	138.562	55.597	-0.563	MWD+IFR1+MS
29400.000	90.000	179.678	11741.997	143.485	0.000	139.291	-0.000	143.485	0.000	0.000	139.292	55.689	-0.560	MWD+IFR1+MS
29500.000	90.000	179.678	11741.997	144.252	0.000	140.021	-0.000	144.252	0.000	0.000	140.022	55.782	-0.557	MWD+IFR1+MS
29586.381	90.000	179.678	11741.997	144.916	0.000	140.651	-0.000	144.916	0.000	0.000	140.652	55.862	-0.554	MWD+IFR1+MS
29600.000	90.000	179.678	11741.997	145.020	0.000	140.750	-0.000	145.020	0.000	0.000	140.751	55.875	-0.554	MWD+IFR1+MS
29687.136	90.000	179.678	11741.997	145.689	0.000	141.386	-0.000	145.689	0.000	0.000	141.387	55.957	-0.551	MWD+IFR1+MS

Plan Targets

Poker Lake Unit 20 DTD South 220H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 9	11899.72	440383.80	632771.90	8463.00	RECTANGLE
SHL 10	11515.04	439669.32	632795.78	7488.41	RECTANGLE
LTP 9	29587.14	422279.20	632873.70	8463.00	RECTANGLE
BHL 9	29687.23	422179.20	632874.30	8463.00	RECTANGLE

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

XTO Energy Inc.
PLU 20 Dog Town Draw 220H
Projected TD: 29687.14' MD / 11742' TVD
SHL: 815' FNL & 2390' FWL , Section 20, T24S, R30E
BHL: 2438' FNL & 2373' FWL , Section 5, T25S, 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	836'	Water
Top of Salt	1239'	Water
Base of Salt	3432'	Water
Delaware	3626'	Water
Brushy Canyon	6124'	Water/Oil/Gas
Bone Spring	7420'	Water
1st Bone Spring	8406'	Water/Oil/Gas
2nd Bone Spring	9224'	Water/Oil/Gas
3rd Bone Spring	10318'	Water/Oil/Gas
Wolfcamp	10709'	Water/Oil/Gas
Wolfcamp X	10730'	Water/Oil/Gas
Wolfcamp Y	10808'	Water/Oil/Gas
Wolfcamp A	10850'	Water/Oil/Gas
Wolfcamp B	11184'	Water/Oil/Gas
Wolfcamp D	11633'	Water/Oil/Gas
Wolfcamp E	11692'	Water/Oil/Gas
Target/Land Curve	11742'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 936' (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 10873.45' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 29687.14 MD/TD and 6 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 10573.45 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 936'	13.375	54.5	J-55	BTC	New	1.06	2.76	17.82
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	1.49	2.31	2.91
12.25	4000' – 10873.45'	9.625	40	HC L-80	BTC	New	1.09	1.61	3.33
8.5	0' – 10773.45'	6	26	P-110	Semi-Premium	New	1.17	1.88	1.55
8.5	10773.45' - 29687.14'	6	26	P-110	Semi-Premium	New	1.17	1.72	1.76

- 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.
- 6 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

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 +/- 936'

Lead: 470 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft³/sx, 10.13 gal/sx water)
 Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)
 Top of Cement: Surface
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9.625, 40 New casing to be set at +/- 10873.45'

1st Stage

Optional Lead: 1030 sxs Class C (mixed at 10.5 ppg, 2.77 ft³/sx, 15.59 gal/sx water)
 TOC: Surface
 Tail: 1370 sxs Class C (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)
 TOC: Brushy Canyon @ 6124
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft³/sx, 9.61 gal/sx water)
 Tail: 2160 sxs Class C (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)
 Top of Cement: 0
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 9-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6124') 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: 6, 26 New Semi-Premium, P-110 casing to be set at +/- 29687.14'

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft³/sx, 15.00 gal/sx water) Top of Cement: 10573.45 feet
 Tail: 3160 sxs VersaCem (mixed at 14.5 ppg, 1.51 ft³/sx, 8.38 gal/sx water) Top of Cement: 11073.45 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 5M Double Ram BOP. MASP should not exceed 5293 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 week.

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' - 936'	17.5	FW/Native	8.4-8.9	35-40	NC
936' - 10873.45'	12.25	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
10873.45' - 29687.14'	8.5	OBM	12.9-13.4	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 180 to 200 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 7877 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.

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

APD ID 10400089352

WELL LOCATION AND ACREAGE DEDICATION PLAT

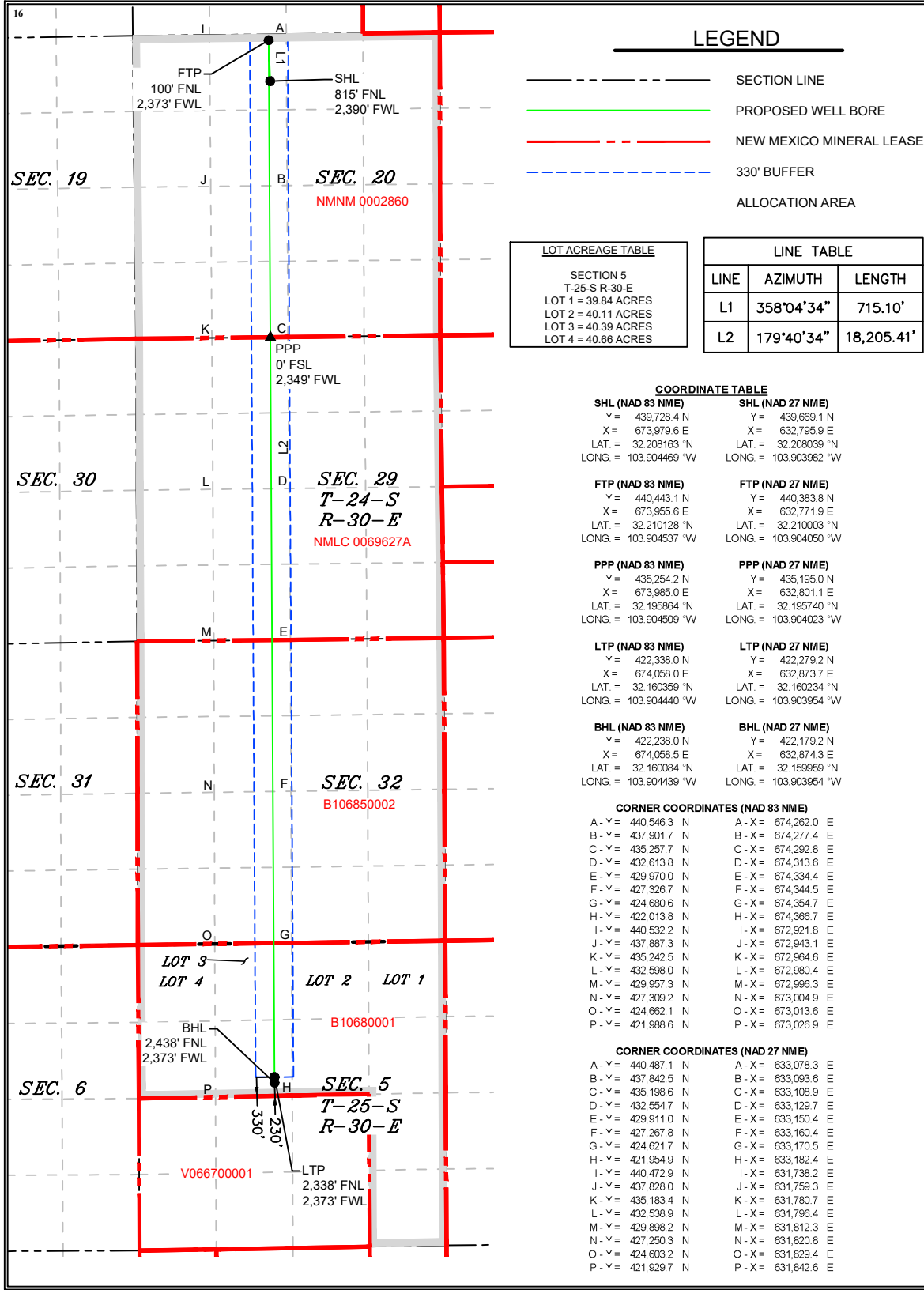
¹ API Number 30-015-	² Pool Code 98220	³ Pool Name Purple Sage; Wolfcamp (gas)
⁴ Property Code	⁵ Property Name POKER LAKE UNIT 20 DTD	⁶ Well Number 220H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC	⁹ Elevation 3,247'

¹⁰ Surface Location									
UL or lot no. C	Section 20	Township 24S	Range 30E	Lot Idn	Feet from the 815	North/South line NORTH	Feet from the 2,390	East/West line WEST	County EDDY

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. F	Section 5	Township 25S	Range 30E	Lot Idn	Feet from the 2,438	North/South line NORTH	Feet from the 2,373	East/West line WEST	County EDDY

¹² Dedicated Acres 2,321.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

Rusty Klein 3-10-24
Signature Date

RUSTY KLEIN
Printed Name

ranell.klein@exxonmobil.com
E-mail Address

18 SURVEYOR CERTIFICATION

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

02/09/2024
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP
NEW MEXICO
23786
PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number

RP 618.013003.06-42

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

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

CONDITIONS

Action 359221

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 359221
	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.	6/28/2024